

# Question ID 41914016

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 41914016

Researchers hypothesized that a decline in the population of dusky sharks near the mid-Atlantic coast of North America led to a decline in the population of eastern oysters in the region. Dusky sharks do not typically consume eastern oysters but do consume cownose rays, which are the main predators of the oysters.

Which finding, if true, would most directly support the researchers’ hypothesis?

- A. Declines in the regional abundance of dusky sharks’ prey other than cownose rays are associated with regional declines in dusky shark abundance.
- B. Eastern oyster abundance tends to be greater in areas with both dusky sharks and cownose rays than in areas with only dusky sharks.
- C. Consumption of eastern oysters by cownose rays in the region substantially increased before the regional decline in dusky shark abundance began.
- D. Cownose rays have increased in regional abundance as dusky sharks have decreased in regional abundance.

ID: 41914016 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would most directly support the researchers’ hypothesis about the connection between the dusky shark population decline and the eastern oyster population decline. The text indicates that although dusky sharks don’t usually eat eastern oysters, they do consume cownose rays, which are the main predators of eastern oysters. An increase in the abundance of cownose rays in the region in response to a decline in the abundance of dusky sharks would directly support the researchers’ hypothesis: a higher number of cownose rays would consume more eastern oysters, driving down the oyster population.

Choice A is incorrect because a finding that there’s an association between a decline in the regional abundance of some of dusky sharks’ prey and the regional abundance of dusky sharks wouldn’t directly support the researchers’ hypothesis that a decline in dusky sharks has led to a decline in eastern oysters in the region. Although such a finding might help explain why shark abundance has declined, it would reveal nothing about whether the shark decline is related to the oyster decline. Choice B is incorrect because a finding that eastern oyster abundance tends to be greater when dusky sharks and cownose rays are present than when only dusky sharks are present wouldn’t support the researchers’ hypothesis that a decline in dusky sharks has led to a decline in eastern oysters in the region. The text indicates that the sharks prey on the rays, which are the main predators of the oysters; if oyster abundance is found to be greater when rays are present than when rays are absent, that would suggest that rays aren’t keeping oyster abundance down, and thus that a decline in rays’ predators, which would be expected to lead to an increase in the abundance of rays, wouldn’t bring about a decline in oyster abundance as the researchers hypothesize. Choice C is incorrect because a finding that consumption of eastern oysters by cownose rays increased substantially before dusky sharks declined in regional abundance wouldn’t support the researchers’ hypothesis that the decline in dusky sharks has led to a decline

in eastern oysters in the region. Such a finding would suggest that some factor other than shark abundance led to an increase in rays' consumption of oysters and thus to a decrease in oyster abundance, thereby weakening the researchers' hypothesis.

Question Difficulty: Hard

Question ID 23d47b9b

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 23d47b9b

Participants’ Evaluation of the Likelihood That Robots Can Work Effectively in Different Occupations

| Occupation                                           | Somewhat or very unlikely (%) | Neutral (%) | Somewhat or very likely (%) |
|------------------------------------------------------|-------------------------------|-------------|-----------------------------|
| television news anchor                               | 24                            | 9           | 67                          |
| teacher                                              | 37                            | 16          | 47                          |
| firefighter                                          | 62                            | 9           | 30                          |
| surgeon                                              | 74                            | 9           | 16                          |
| tour guide                                           | 10                            | 8           | 82                          |
| Rows in table may not add up to 100 due to rounding. |                               |             |                             |

Georgia Tech roboticists De’Aira Bryant and Ayanna Howard, along with ethicist Jason Borenstein, were interested in people’s perceptions of robots’ competence. They recruited participants and asked them how likely they think it is that a robot could do the work required in various occupations. Participants’ evaluations varied widely depending on which occupation was being considered; for example, \_\_\_\_\_

Which choice most effectively uses data from the table to complete the example?

- A. 47% of participants believe that it is somewhat or very likely that a robot could work effectively as a teacher, but 37% of respondents believe that it is somewhat or very unlikely that a robot could do so.
- B. 9% of participants were neutral about whether a robot could work effectively as a television news anchor, which is the same percent of participants who were neutral when asked about a robot working as a surgeon.
- C. 82% of participants believe that it is somewhat or very likely that a robot could work effectively as a tour guide, but only 16% believe that it is somewhat or very likely that a robot could work as a surgeon.
- D. 62% of participants believe that it is somewhat or very unlikely that a robot could work effectively as a firefighter.

ID: 23d47b9b Answer

Correct Answer: C

Rationale

Choice C is the best answer because it effectively uses data from the table to complete the example of variations in participants’ evaluations. The table shows participants’ evaluations of the likelihood that robots could work effectively in different occupations. The text asserts that participants’ evaluations varied widely depending on the occupation being considered and introduces an example supporting that assertion. The data from the table showing that 82% of participants believe that it is somewhat or very

likely that a robot could work effectively as a tour guide but only 16% of participants believe that it is somewhat or very likely that a robot could work effectively as a surgeon illustrate this assertion: those data show participants' views changing substantially with the occupation being considered.

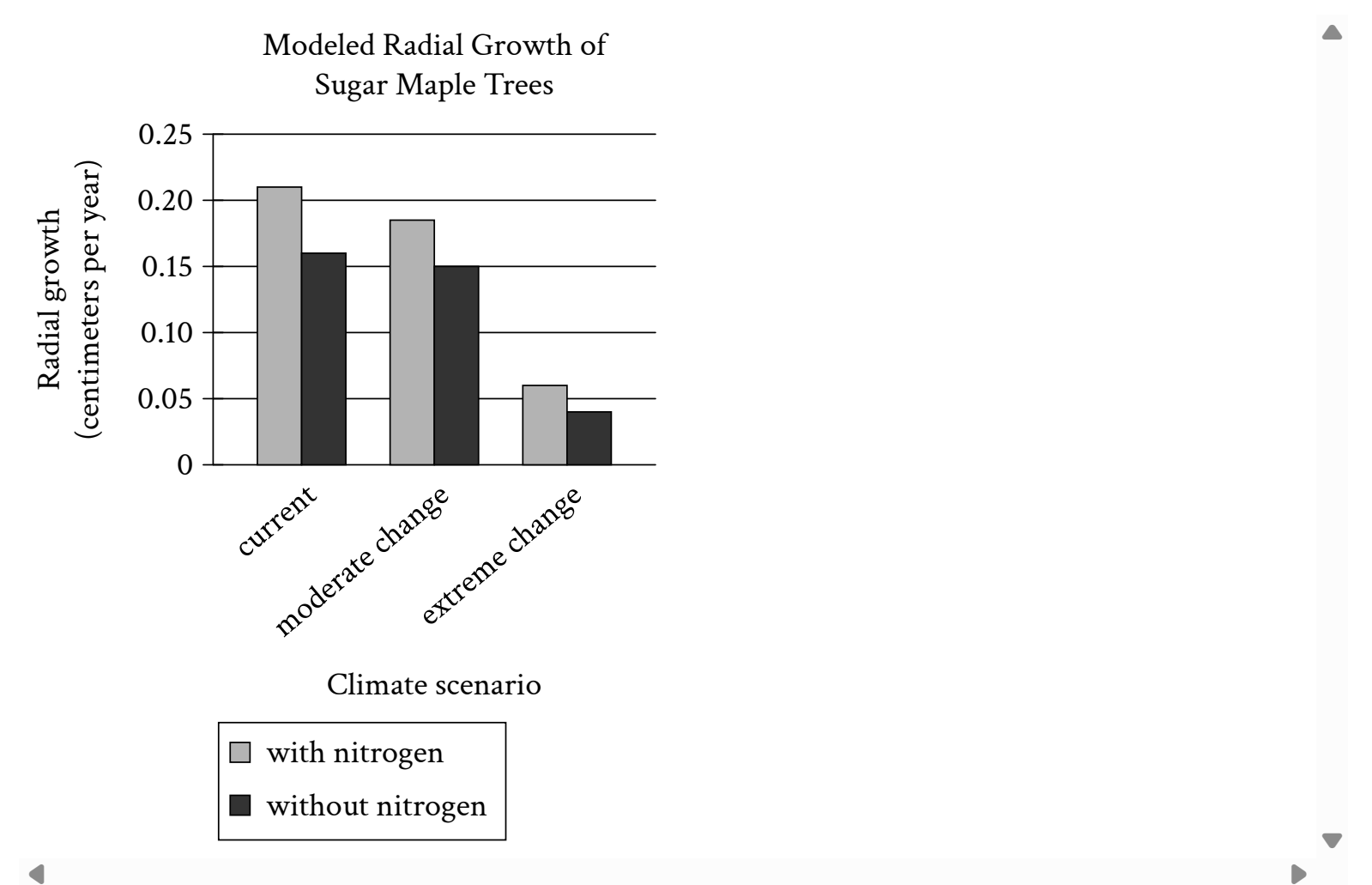
Choice A is incorrect because it does not describe data that illustrate the assertion that participants' evaluations varied widely depending on which occupation was being considered. Although this choice accurately describes data in the table, data about participants' responses when considering a single occupation—teaching—could not be an example of people's views changing substantially depending on the occupation being considered. Choice B is incorrect because it identifies a similarity in participants' responses when considering two different occupations, but the assertion that the example is intended to illustrate is that participants' evaluations varied widely depending on the occupation being considered. Although this choice accurately describes data in the table, those data do not illustrate the assertion in the text. Choice D is incorrect because it does not describe data that illustrate the assertion that participants' evaluations varied widely depending on which occupation was being considered. Although this choice accurately describes data in the table, data showing participants' evaluation of just one occupation could not be an example of participants' evaluations changing depending on the occupation under evaluation.

Question Difficulty: Hard

Question ID 44ebfc85

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 44ebfc85



Inés Ibáñez and colleagues studied a forest site in which some sugar maple trees receive periodic fertilization with nitrogen to mimic the broader trend of increasing anthropogenic nitrogen deposition in soil. Ibáñez and colleagues modeled the radial growth of the trees with and without nitrogen fertilization under three different climate scenarios (the current climate, moderate change, and extreme change). Although they found that climate change would negatively affect growth, they concluded that anthropogenic nitrogen deposition could more than offset that effect provided that change is moderate rather than extreme.

Which choice best describes data from the graph that support Ibáñez and colleagues’ conclusion?

- A. Growth with nitrogen under the current climate exceeded growth with nitrogen under moderate change, but the latter exceeded growth without nitrogen under extreme change.
- B. Growth without nitrogen under the current climate exceeded growth without nitrogen under moderate change, but the latter exceeded growth with nitrogen under extreme change.
- C. Growth with nitrogen under moderate change exceeded growth without nitrogen under moderate change, but the latter exceeded growth without nitrogen under extreme change.

D. Growth with nitrogen under moderate change exceeded growth without nitrogen under the current climate, but the latter exceeded growth with nitrogen under extreme change.

**ID: 44ebfc85 Answer**

Correct Answer: D

**Rationale**

Choice D is the best answer because it describes data from the graph that support Ibáñez and colleagues' conclusion that increasing anthropogenic nitrogen deposition can compensate for the negative effect of climate change on tree growth if that change is moderate but not if it's extreme. The bar graph shows the growth of sugar maple trees with and without nitrogen fertilization under three different climate-change scenarios: current conditions, a moderate change, and an extreme change. According to the graph, radial growth without nitrogen fertilization is projected to be about 0.16 centimeters (cm) under current conditions, 0.15 cm under a moderate change, and 0.04 cm under an extreme change. The graph also shows that with nitrogen fertilization, growth is projected to be about 0.18 centimeters under a moderate change but only about 0.06 centimeters under an extreme change. Thus, the data in the graph support the researchers' conclusion by showing greater growth for a moderate change using nitrogen fertilization than they do either under current conditions without nitrogen fertilization or under an extreme change with nitrogen fertilization.

Choice A is incorrect. Although it accurately represents the data in the graph, this fact pattern doesn't support Ibáñez and colleagues' conclusion that the decline in radial growth due to climate change will be partly offset by higher levels of anthropogenic nitrogen, but only if change to the climate is moderate and not if it's extreme. To support this would require comparing radial growth without nitrogen fertilization under current climate conditions to the growth with nitrogen fertilization under both moderate and extreme changes. This choice mentions only growth with nitrogen fertilization under current climate conditions and moderate change and growth without nitrogen fertilization under an extreme change, which don't provide a basis to determine whether higher nitrogen in the future will be able to offset reduced growth due to climate change. Choice B is incorrect. Although it accurately represents the data in the graph, this fact pattern doesn't support Ibáñez and colleagues' conclusion that the decline in radial growth due to climate change will be partly offset by higher levels of atmospheric nitrogen, but only if change to the climate is moderate and not if it's extreme. The support needed would compare radial growth under current climate conditions without nitrogen fertilization to the growth with nitrogen fertilization under moderate and extreme changes. This choice mentions only growth without nitrogen fertilization under current conditions and moderate change and growth with nitrogen fertilization under extreme change, which don't provide a basis to determine whether higher nitrogen in the future will be able to offset reduced growth due to climate change. Choice C is incorrect. Although it accurately represents the data in the graph, this fact pattern doesn't support Ibáñez and colleagues' conclusion that the decline in radial growth due to climate change will be partly offset by higher levels of atmospheric nitrogen, but only if change to the climate is moderate and not if it's extreme. The support needed would compare radial growth without adding nitrogen under current climate conditions to the growth with nitrogen fertilization under moderate and extreme changes. This choice mentions only the growth with and without nitrogen fertilization under moderate climate change and growth without nitrogen fertilization under extreme change, which don't provide a basis to determine whether higher nitrogen in the future will be able to offset reduced growth due to climate change.

Question Difficulty: Hard

# Question ID 6b7e16bd

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6b7e16bd

*Sense and Sensibility* is an 1811 novel by Jane Austen. In the novel, Austen describes Marianne Dashwood’s ability to persuade others of the rightness of her artistic judgments, as is evident when Marianne visits with John Willoughby, a potential suitor:

\_\_\_\_\_

Which quotation from *Sense and Sensibility* most effectively illustrates the claim?

- A. “Above all, when she heard him declare, that of music and dancing he was passionately fond, she gave him such a look of approbation as secured the largest share of his discourse to herself for the rest of his stay.”
- B. “Their taste was strikingly alike. The same books, the same passages were idolized by each—or if any difference appeared, any objection arose, it lasted no longer than till the force of her arguments and the brightness of her eyes could be displayed.”
- C. “It was only necessary to mention any favourite amusement to engage her to talk. She could not be silent when such points were introduced, and she had neither shyness nor reserve in their discussion.”
- D. “They speedily discovered that their enjoyment of dancing and music was mutual, and that it arose from a general conformity of judgment in all that related to either. Encouraged by this to a further examination of his opinions, she proceeded to question him on the subject of books.”

ID: 6b7e16bd Answer

Correct Answer: B

Rationale

Choice B is the best answer. By showing that "any difference" in taste was quickly overcome by "the force of [Marianne’s] arguments," this choice effectively demonstrates Marianne’s "ability to persuade others."

Choice A is incorrect. This choice doesn’t effectively illustrate the claim. This choice shows that Marianne and John share an interest in music and dancing, but it doesn’t provide evidence of Marianne’s "ability to persuade others." Choice C is incorrect. This choice doesn’t effectively illustrate the claim. This choice shows that Marianne enjoys talking about her interests, but it doesn’t provide evidence of Marianne’s "ability to persuade others." Choice D is incorrect. This choice doesn’t effectively illustrate the claim. This choice shows that Marianne and John share many interests and generally agree on music and dancing, but it doesn’t provide evidence of Marianne’s "ability to persuade others."

Question Difficulty: Hard

Question ID db39fb59

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: db39fb59

Under normal atmospheric pressure at Earth’s surface, water molecules form a tetrahedral network stabilized by hydrogen bonds between adjacent molecules. Extreme high pressure, such as can be found in deep ocean waters, destabilizes these bonds and compresses water’s structure, allowing water molecules within organisms to permeate proteins and impede crucial biological functions; yet deep-sea organisms known as piezophiles have adapted to extreme pressure. Studies have found a positive correlation between the depths that various piezophiles inhabit and concentrations of a compound called trimethylamine N-oxide (TMAO) in their muscle tissues, which has led a team of researchers to hypothesize that TMAO reduces water’s compressibility.

- Which finding, if true, would most directly support the researchers’ hypothesis?
- A. Water molecules are found to be impervious to TMAO even when the water molecules’ tetrahedral configuration has been distorted by high pressure.
  - B. Examination of TMAO’s molecular structure shows that TMAO molecules retain their shape even as pressure increases.
  - C. A positive correlation is found between concentrations of TMAO and the rate at which water’s molecular structure compresses as pressure increases.
  - D. Analysis of water’s molecular structure under high pressure reveals that hydrogen bonds are more stable when TMAO is present than when it is not.

ID: db39fb59 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would support the researchers’ hypothesis that TMAO reduces water’s compressibility. The text explains that at great depths in the ocean, extreme pressure compresses the molecular structure of water by destabilizing the hydrogen bonds between adjacent molecules, thereby allowing water to penetrate proteins and harm the associated organisms. However, deep-sea organisms called piezophiles have adapted to live at these depths and previous studies show a positive correlation between the depth at which a piezophile species lives and the species’ level of the compound TMAO. Because this hypothesis links TMAO levels with reduced compressibility of water’s tetrahedral molecular structure, a finding that TMAO helps maintain the hydrogen bonds between water molecules under high pressure would strongly support that hypothesis.

Choice A is incorrect. Although the researchers’ hypothesis suggests a relationship between TMAO and water molecules’ tetrahedral molecular structure, that relationship involves TMAO helping maintain water’s tetrahedral molecular structure under high pressure; as presented in the text, the hypothesis doesn’t contend that water molecules are impervious to, or incapable of being penetrated by, TMAO. Choice B is incorrect because the text discusses how the molecular structure of water, not TMAO, is compressed under extreme pressure and never addresses how TMAO might be affected by such pressure. Choice C is incorrect because the researchers’ hypothesis holds that water under extreme pressure is more resistant, not less, to being compressed when TMAO concentrations are higher. Moreover, the positive correlation mentioned in the text is between TMAO concentrations

and the depths at which piezophiles live, not between concentrations of TMAO and the rate at which water's molecular structure compresses as pressure increases.

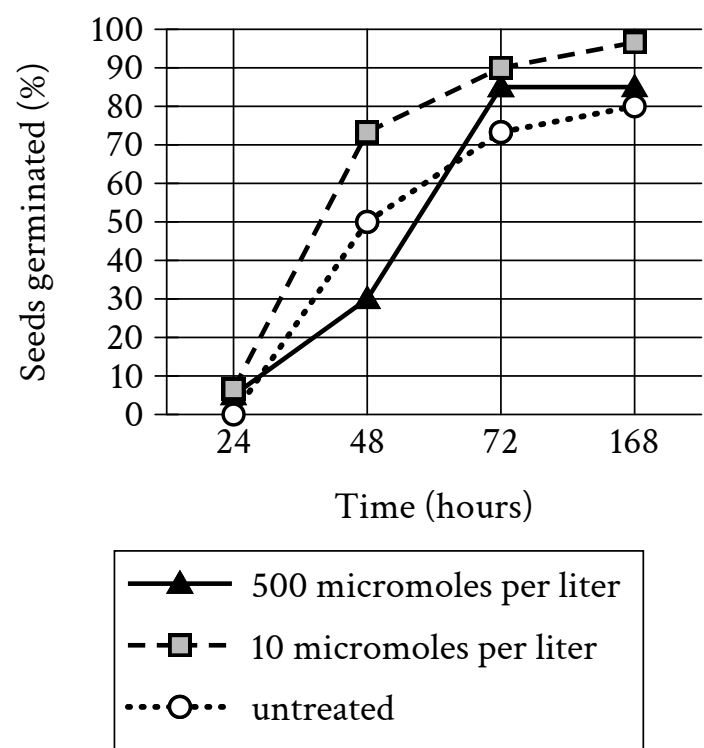
Question Difficulty: Hard

Question ID 62bd05a8

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
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| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: 62bd05a8

Seed Germination with and without H<sub>2</sub>S Treatment



In high concentrations, hydrogen sulfide (H<sub>2</sub>S) is typically toxic to many plants. Frederick D. Dooley and colleagues wanted to understand what effects low doses of H<sub>2</sub>S might have on plant growth. They treated bean, corn, wheat, and pea seeds with various concentrations (measured in micromoles per liter) of H<sub>2</sub>S and tracked the germination of those seeds along with the germination of untreated seeds. Treatment with particular concentrations of H<sub>2</sub>S was associated with accelerated germination: for example, \_\_\_\_\_

- Which choice most effectively uses data from the graph to complete the statement?
- A. at 24 hours, less than 10% of seeds treated with H<sub>2</sub>S at a concentration of 10 micromoles per liter had germinated, whereas more than 90% of those seeds had germinated at 168 hours.
  - B. at 48 hours, more than 70% of seeds treated with H<sub>2</sub>S at a concentration of 10 micromoles per liter had germinated, whereas only approximately 50% of untreated seeds had germinated.
  - C. at 168 hours, more than 90% of seeds treated with H<sub>2</sub>S at concentrations of 10 or 500 micromoles per liter had germinated, whereas less than 70% of untreated seeds had germinated.
  - D. at 48 hours, approximately 50% of seeds treated with H<sub>2</sub>S at a concentration of 10 micromoles per liter had germinated, whereas only approximately 30% of untreated seeds had germinated.

Correct Answer: B

#### Rationale

Choice B is the best answer. The claim is that some concentrations of  $\text{H}_2\text{S}$  led to increased germination rates, and this choice accurately shows that seeds treated with 10 micromoles per liter of  $\text{H}_2\text{S}$  tended to germinate faster than untreated seeds.

Choice A is incorrect. This choice doesn't justify the claim. The claim compares the germination rates of seeds exposed to certain concentrations of  $\text{H}_2\text{S}$  to untreated seeds, but this choice only discusses one concentration of  $\text{H}_2\text{S}$ , so it can't support any comparison between treated and untreated groups. Choice C is incorrect. This choice misreads the graph. At 168 hours, only about 85% of seeds treated with  $\text{H}_2\text{S}$  at 500 micromoles per liter and well over 70% of untreated seeds had germinated (about 80%). Choice D is incorrect. This choice misreads the graph. At 48 hours, about 70% of seeds treated with  $\text{H}_2\text{S}$  at 10 micromoles per liter and about 50% of untreated seeds had germinated.

Question Difficulty: Hard

# Question ID 4eea5cf1

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 4eea5cf1

Neurobiologists Laura Cuaya, Raúl Hernández-Pérez, and colleagues investigated the language detection abilities of eighteen dogs. The researchers monitored the brain activity of Joey (an Australian shepherd), Mini (a mixed breed), and other dogs while the animals listened to three recordings: one of *The Little Prince* being read in Spanish, the second in Hungarian, and a third made up of short, randomly selected fragments of the first two, scrambled so that they didn't resemble human speech. Each dog was familiar with either Spanish or Hungarian, but not both. The team concluded that differences in dogs' anatomical features may affect their ability to distinguish speech from nonspeech.

Which finding from the study, if true, would most directly support the team's conclusion?

- A. Long-headed dogs accustomed to hearing Spanish tended to show more brain activity when hearing Spanish than long-headed dogs accustomed to hearing Hungarian showed when hearing Hungarian.
- B. Compared with shorter-headed dogs, longer-headed dogs showed a greater difference in brain activity when hearing either Spanish or Hungarian than when hearing the scrambled recording.
- C. The pattern of brain activity that long-headed dogs showed when hearing the scrambled recording was different from the pattern of brain activity that short-headed dogs showed when hearing the language they were accustomed to.
- D. Compared with shorter-headed dogs, longer-headed dogs showed a greater difference in brain activity when hearing the language they were accustomed to than when hearing the other language.

ID: 4eea5cf1 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support the research team's conclusion about anatomical features and speech detection in dogs. The text explains that a team of researchers monitored the brain activity of dogs while the dogs listened to three recordings: one of spoken Spanish, one of spoken Hungarian, and one of scrambled fragments that weren't recognizable as human speech. The text then states that the team concluded that differences in dogs' anatomical features may affect their ability to distinguish speech from nonspeech. The finding that longer-headed dogs exhibited a greater difference in brain activity when listening to the speech recordings (in Spanish or Hungarian) versus the nonspeech (scrambled) recording compared with shorter-headed dogs would establish an association between an anatomical feature (head length) and responses (as measured by brain activity) to speech versus nonspeech. This observed relationship between head length and brain activity patterns during exposure to speech and nonspeech would support the team's conclusion.

Choice A is incorrect because it describes a finding about dogs' responses (as indicated by brain activity) to hearing their respective familiar languages rather than dogs' ability to distinguish speech from nonspeech, which is what the team's conclusion specifically addresses. Moreover, this finding pertains to only one anatomical type (long-headed dogs), so it wouldn't support the conclusion that anatomical differences may affect dogs' ability to distinguish speech from nonspeech. Choice C is incorrect because it describes a finding involving a comparison between long-headed dogs listening to nonspeech and short-headed dogs

listening to speech, which wouldn't provide enough information to support the researchers' conclusion that anatomical differences may affect dogs' ability to distinguish speech from nonspeech. To support that conclusion, the finding would need to show how dogs with different anatomical features (for example, long-headed and short-headed dogs) respond to recordings of speech as well as recordings of nonspeech. Choice D is incorrect because it describes a finding about dogs' ability to distinguish between a familiar language and an unfamiliar one, not between speech and nonspeech. While this finding does compare dogs with different anatomical features (longer-headed vs. shorter-headed ones), it focuses on language recognition (Spanish vs. Hungarian) rather than the ability to distinguish speech from nonspeech, which is what the team's conclusion specifically addresses.

Question Difficulty: Hard

Question ID 13587011

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 13587011

Average Number and Duration of Torpor Bouts and Arousal Episodes for Alaska Marmots and Arctic Ground Squirrels, 2008–2011

| Feature              | Alaska marmots | Arctic ground squirrels |
|----------------------|----------------|-------------------------|
| torpor bouts         | 12             | 10.5                    |
| duration per bout    | 13.81 days     | 16.77 days              |
| arousal episodes     | 11             | 9.5                     |
| duration per episode | 21.2 hours     | 14.2 hours              |

When hibernating, Alaska marmots and Arctic ground squirrels enter a state called torpor, which minimizes the energy their bodies need to function. Often a hibernating animal will temporarily come out of torpor (called an arousal episode) and its metabolic rate will rise, burning more of the precious energy the animal needs to survive the winter. Alaska marmots hibernate in groups and therefore burn less energy keeping warm during these episodes than they would if they were alone. A researcher hypothesized that because Arctic ground squirrels hibernate alone, they would likely exhibit longer bouts of torpor and shorter arousal episodes than Alaska marmots.

Which choice best describes data from the table that support the researcher’s hypothesis?

- A. The Alaska marmots’ arousal episodes lasted for days, while the Arctic ground squirrels’ arousal episodes lasted less than a day.
- B. The Alaska marmots and the Arctic ground squirrels both maintained torpor for several consecutive days per bout, on average.
- C. The Alaska marmots had shorter torpor bouts and longer arousal episodes than the Arctic ground squirrels did.
- D. The Alaska marmots had more torpor bouts than arousal episodes, but their arousal episodes were much shorter than their torpor bouts.

ID: 13587011 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it describes data from the table that support the researcher’s hypothesis. According to the text, the researcher hypothesized that Arctic ground squirrels would exhibit longer torpor bouts and shorter arousal episodes than Alaska marmots do—or, put the other way, that the marmots would show shorter torpor bouts and longer arousal episodes than the ground squirrels do. The table shows data about torpor bouts and arousal episodes for the two species from 2008 to 2011. According to the table, the average duration of torpor bouts was 13.81 days for Alaska marmots, shorter than the average of

16.77 days for Arctic ground squirrels, and the average duration of arousal episodes was 21.2 hours for Alaska marmots, longer than the average of 14.2 hours for Arctic ground squirrels. Thus, the table supports the researcher's hypothesis by showing that Alaska marmots had shorter bouts of torpor and longer arousal episodes than Arctic ground squirrels did.

Choice A is incorrect because it inaccurately describes data from the table and doesn't support the researcher's hypothesis. The table shows that the average duration of arousal episodes was less than a day for both Alaska marmots (21.2 hours) and Arctic ground squirrels (14.2 hours). Additionally, information about arousal episodes for Alaska marmots and Arctic ground squirrels isn't sufficient to support a hypothesis involving comparisons of both arousal episodes and torpor bouts for those animals.

Choice B is incorrect because it doesn't support the researcher's hypothesis, which involves comparisons of arousal episodes as well as torpor bouts for Alaska marmots and Arctic ground squirrels. Noting that both animals had torpor bouts lasting several days, on average, doesn't address arousal episodes at all, nor does it reveal how the animals' torpor bouts compared. Choice D is incorrect because it doesn't support the researcher's hypothesis. Although the table does show that Alaska marmots had more torpor bouts (12) than arousal episodes (11) and that their arousal episodes were much shorter than their torpor bouts (21.2 hours and 13.81 days, respectively), comparing data across only Alaska marmot behaviors isn't sufficient to support a hypothesis about torpor and arousal behaviors of both Alaska marmots and Arctic ground squirrels.

Question Difficulty: Hard

Question ID 2a411e91

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 2a411e91

While attending school in New York City in the 1980s, Okwui Enwezor encountered few works by African artists in exhibitions, despite New York’s reputation as one of the best places to view contemporary art from around the world. According to an arts journalist, later in his career as a renowned curator and art historian, Enwezor sought to remedy this deficiency, not by focusing solely on modern African artists, but by showing how their work fits into the larger context of global modern art and art history.

Which finding, if true, would most directly support the journalist’s claim?

- A. As curator of the Haus der Kunst in Munich, Germany, Enwezor organized a retrospective of Ghanaian sculptor El Anatsui’s work entitled *El Anatsui: Triumphant Scale*, one of the largest art exhibitions devoted to a Black artist in Europe’s history.
- B. In the exhibition *Postwar: Art Between the Pacific and the Atlantic, 1945–1965*, Enwezor and cocurator Katy Siegel brought works by African artists such as Malangatana Ngwenya together with pieces by major figures from other countries, like US artist Andy Warhol and Mexico’s David Siqueiros.
- C. Enwezor’s work as curator of the 2001 exhibition *The Short Century: Independence and Liberation Movements in Africa, 1945–1994* showed how African movements for independence from European colonial powers following the Second World War profoundly influenced work by African artists of the period, such as Kamala Ibrahim Ishaq and Thomas Mukarobgwa.
- D. Enwezor organized the exhibition *In/sight: African Photographers, 1940 to the Present* not to emphasize a particular aesthetic trend but to demonstrate the broad range of ways in which African artists have approached the medium of photography.

ID: 2a411e91 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support the arts journalist’s claim about Enwezor’s work as a curator and art historian. In the text, the arts journalist asserts that Enwezor wished not just to focus on modern African artists but also to show “how their work fits into the larger context of global modern art and art history,” or how their work relates to artistic developments and work by other artists elsewhere in the world. The description of *Postwar: Art Between the Pacific and the Atlantic, 1945–1965* indicates that Enwezor and Siegel’s exhibition brought works by African artists together with works by artists from other countries, thus supporting the arts journalist’s claim that Enwezor sought to show works by African artists in a context of global modern art and art history.

Choice A is incorrect because it describes a retrospective that wouldn’t support the arts journalist’s claim that Enwezor wanted to show how works by modern African artists fit into the larger context of global modern art and art history. The description of *El Anatsui: Triumphant Scale* indicates that the retrospective focused only on the work of a single African artist, El Anatsui. The description doesn’t suggest that the exhibition showed how El Anatsui’s works fit into a global artistic context. Choice C is incorrect because it describes an exhibition that wouldn’t support the arts journalist’s claim that Enwezor wanted to show how works by modern African artists relate to the larger context of global modern art and art history. The description of *The Short Century: Independence and Liberation Movements in Africa, 1945–1994* indicates that the exhibition showed how African artists

were influenced by movements for independence from European colonial powers following the Second World War. Although this suggests that Enwezor intended the exhibition to place works by African artists in a political context, it doesn't indicate that the works were placed in a global artistic context. Choice D is incorrect because it describes an exhibition that wouldn't support the arts journalist's claim that Enwezor wanted to show how works by modern African artists relate to the larger context of global modern art and art history. The description of *In/sight: African Photographers, 1940 to the Present* indicates that the exhibition was intended to reveal the broad range of approaches taken by African photographers, not that the exhibition showed how photography by African artists fits into a global artistic context.

Question Difficulty: Hard

# Question ID 588a4c0d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 588a4c0d

Rivers rich in sediment appear yellow, while increases in red algae make rivers appear red. To track things like the sediment or algae content of large US rivers, John R. Gardner and colleagues used satellite data to determine the dominant visible wavelengths of light measured for various segments of these rivers. The researchers classified wavelengths of 495 nanometers (nm) and below as red, wavelengths between 495 and 560 nm as blue, and wavelengths of 560 nm and above as yellow. The researchers concluded that for the Missouri River, segments flowing into lakes tend to carry more sediment than those flowing out of lakes.

Which finding, if true, would most directly support the researchers’ conclusion?

- A. The segments of the Missouri River that had higher levels of chlorophyll-a, which contributes to the green color of photosynthetic organisms, have dominant wavelengths of light between 490 and 560 nm.
- B. In lakes through which segments of the Missouri River pass, the dominant wavelength of light tended to be above 560 nm near the lakes’ shores and below 560 nm in the lakes’ centers.
- C. The majority of the segments of the Missouri River were found to have dominant wavelengths of light significantly higher than 560 nm.
- D. Segments of the Missouri River flowing into lakes typically had dominant wavelengths of light above 560 nm, while segments flowing out of lakes typically had dominant wavelengths below 560 nm.

ID: 588a4c0d Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would support Gardner and colleagues’ conclusion that segments of the Missouri River flowing into lakes tend to carry more sediment than do segments of the river flowing out of lakes. The text says that rivers appear yellow when they contain a lot of sediment and appear red when they contain a lot of algae. It goes on to explain that Gardner and colleagues measured the wavelengths of light for different segments of rivers in the United States and classified those wavelength measurements into colors: red for wavelengths of 495 nanometers and below, blue for wavelengths between 495 and 560 nanometers, and yellow for wavelengths of 560 nanometers and above. Combined with the earlier information about river colors, this suggests that rivers rich in sediment will have wavelengths of 560 nanometers and above (since such rivers appear yellow). If researchers found that Missouri River segments flowing into lakes tend to have wavelengths above 560 nanometers and segments flowing out of lakes tend to have wavelengths below 560 nanometers, this finding would support Gardner and colleagues’ conclusion, since it would suggest that the river tends to carry more sediment when it flows into lakes than when it flows out of lakes.

Choice A is incorrect because finding that sections of the Missouri River with high chlorophyll-a levels have wavelengths between 490 and 560 nanometers would be irrelevant to the researchers’ conclusion that segments of the river flowing into lakes are richer in sediment than are segments of the river flowing out of lakes. This finding would not indicate anything about segments flowing

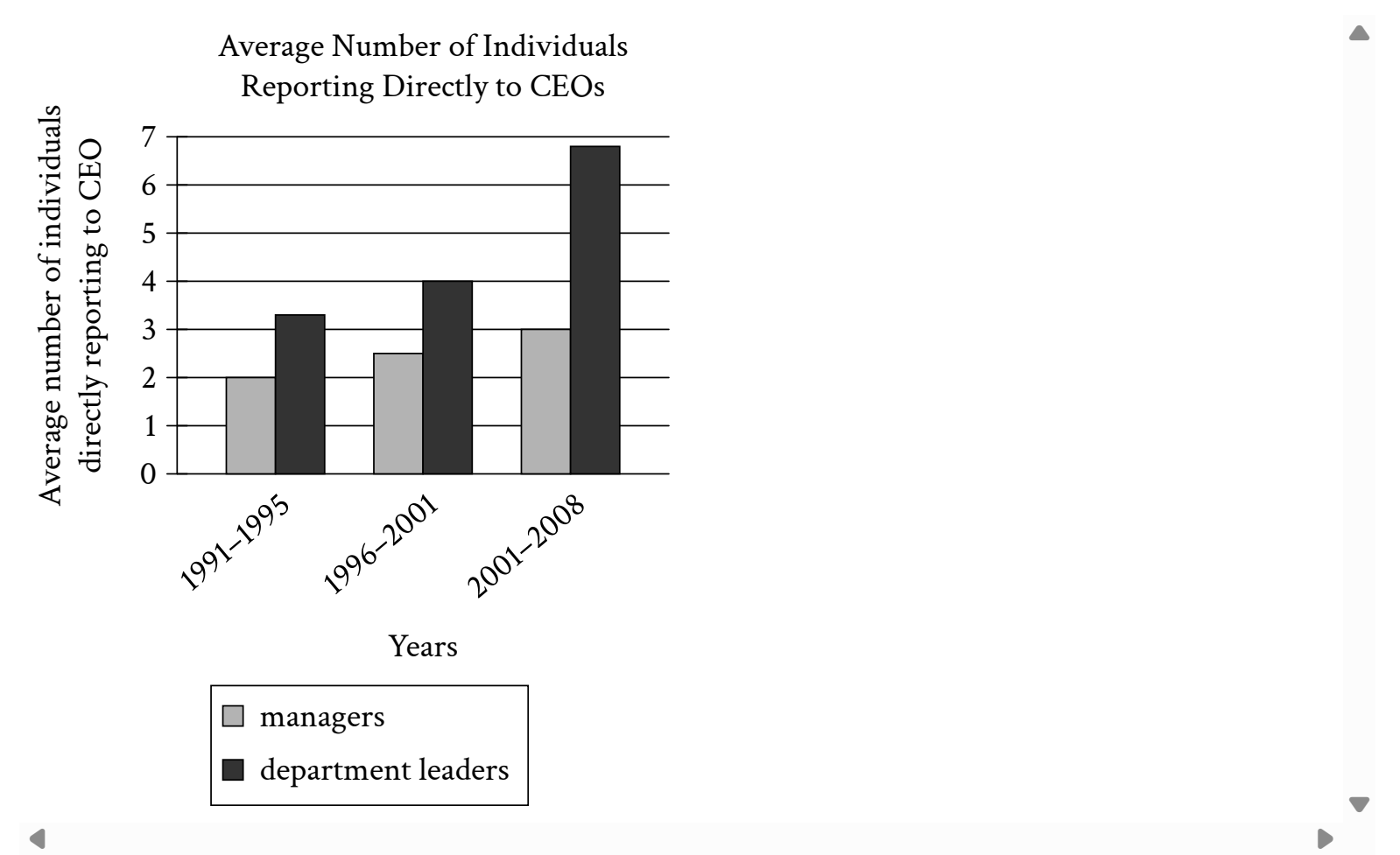
into or out of lakes. Choice B is incorrect because finding that lakes through which the Missouri River passes have higher wavelengths near their shores than in the center would not support the researchers' conclusion that segments of the river flowing into lakes have more sediment than segments flowing out of lakes. This finding would suggest only that there is more sediment around the edges of lakes than in their centers, which does not have any direct bearing on the researchers' conclusion about river segments flowing into and out of lakes. Choice C is incorrect because finding that most segments of the Missouri River have wavelengths significantly higher than 560 nanometers would suggest that most segments of the river are high in sediment, not that segments flowing into lakes are higher in sediment than segments flowing out of lakes. Only a comparison of river segments flowing into lakes with segments flowing out of lakes can support the researchers' conclusion.

Question Difficulty: Hard

Question ID 6ad914fb

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6ad914fb



Considering a large sample of companies, economics experts Maria Guadalupe, Julie Wulf, and Raghuram Rajan assessed the number of managers and leaders from different departments who reported directly to a chief executive officer (CEO). According to the researchers, the findings suggest that across the years analyzed, there was a growing interest among CEOs in connecting with more departments in their companies.

Which choice best describes data from the graph that support the researchers' conclusion?

- A. The average numbers of managers and department leaders reporting directly to their CEO didn't fluctuate from the 1991–1995 period to the 2001–2008 period.
- B. The average number of managers reporting directly to their CEO was highest in the 1996–2001 period.
- C. The average number of department leaders reporting directly to their CEO was greater than the average number of managers reporting directly to their CEO in each of the three periods studied.
- D. The average number of department leaders reporting directly to their CEO rose over the three periods studied.

Correct Answer: D

Rationale

Choice D is the best answer because it describes data from the graph that support the researchers' conclusion that there is a growing interest among CEOs in connecting with more departments in their companies. The graph shows the average number of individuals reporting directly to CEOs during three different time periods: the individuals are divided into managers and department leaders. The average number of department leaders directly reporting to their CEO during the 1991–1995 period was slightly more than three, during the 1996–2001 period it was four, and during the 2001–2008 period it was almost seven. Thus, the average number of department leaders reporting directly to their CEO rose over the three periods studied, which suggests that CEOs were connecting with more departments.

Choice A is incorrect because the average number of managers and department leaders reporting directly to their CEO rose for both categories between the 1991–1995 and 2001–2008 periods; thus, it isn't true that the average numbers didn't fluctuate. Choice B is incorrect because the average number of managers reporting directly to their CEO was highest in the 2001–2008 period, not in the 1996–2001 period. Choice C is incorrect. Although it correctly describes a feature of the graph, the observation that more department leaders than managers are reporting to CEOs does not by itself address the question of whether CEOs are connecting with more departments over time—to address that question, one needs to know whether the number of department leaders reporting to CEOs is increasing over time.

Question Difficulty: Hard

Question ID bc3b92b4

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: bc3b92b4

Corn-Related Vocabulary in Various Southeastern Languages

| Language family | Word (language)                                                            | English translation | Proposed origin in vocabulary of the Totozoquean language family |
|-----------------|----------------------------------------------------------------------------|---------------------|------------------------------------------------------------------|
| Muskogean       | tanchi' (Chickasaw); tanchi (Choctaw); vce (Muscogee, pronounced "uh-chi") | corn                | no                                                               |
| Iroquoian       | se-lu (Cherokee)                                                           | corn                | no                                                               |
| Caddoan         | -k'as- (Caddo)                                                             | dried corn          | yes                                                              |
| Chitimacha      | k'asma (Chitimacha)                                                        | corn                | yes                                                              |

In Caddo, a language from what is now the US Southeast, vocabulary pertaining to corn cultivation resembles equivalent vocabulary in the Totozoquean language family in Mexico. This resemblance is perhaps attributable to cultural contact: such words could have entered Caddo through the intermediary of the neighboring but unrelated Chitimacha language, concurrent with the dissemination of corn itself from Mexico into the Southeast after 700 CE. That the vocabulary pertaining to domestic crops accompanies them as they diffuse into new regions is an established phenomenon globally. Crops may also be decoupled from vocabulary altogether: corn cultivation became ubiquitous among the Southeastern tribes, yet \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. the origins of vocabulary pertaining to the crop vary across languages in the region, with the words for corn in Cherokee and the Muskogean languages showing no demonstrable relationship to Totozoquean vocabulary.
- B. the region is linguistically diverse, being home not only to Chitimacha and Caddo, but also to the Muskogean language family (including Chickasaw, Choctaw, and Muscogee) and to one Iroquoian language (Cherokee).
- C. corn-related vocabulary underwent changes when entering other, unrelated languages, as can be seen by the divergence of the Caddo word from the Chitimacha word it originated in.
- D. words for corn in the languages of the Muskogean family evolved from a common root, with the Muscogee word having lost certain consonant sounds still present in the Chickasaw and Choctaw words.

ID: bc3b92b4 Answer

Correct Answer: A

Rationale

Choice A is the best answer. The table provides evidence that the words for corn in the Cherokee and Muskogean languages appear unrelated to those in Caddo language, which is described as closely related to the Totozoquean language family. This

supports the claim that corn cultivation spread across the Southeast without necessarily spreading Totozoquean vocabulary along with it.

Choice B is incorrect. This choice emphasizes the diversity of Southeastern languages in general, but we're specifically looking for information about words associated with corn. Choice C is incorrect. This choice shows how words for corn can change and evolve, but we're looking for an example that shows how some words for corn can be completely unrelated. Choice D is incorrect. This choice shows words for corn that share a common root, but we're looking for an example that shows how some words for corn can be unrelated.

Question Difficulty: Hard

# Question ID f2ad6231

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: f2ad6231

Archaeologists have held that the Casarabe culture, which emerged in the southwestern Amazon basin in the first millennium CE, was characterized by a sparse, widely distributed population and little intervention in the surrounding wilderness. Recently, however, archaeologist Heiko Prümers and colleagues conducted a study of the region using remote-sensing technology that enabled them to create three-dimensional images of the jungle-covered landscape from above, and the researchers concluded that the Casarabe people developed a form of urbanism in the Amazon basin.

- Which finding about the remote-sensing images, if true, would most directly support Prümers and colleagues’ conclusion?
- A. They show shapes consistent with widely separated settlements of roughly equal small size surrounded by uncultivated jungle.
  - B. They show shapes consistent with long-distance footpaths running from Casarabe territories to large cities outside the region inhabited by the Casarabe people.
  - C. They show shapes consistent with scattered small farms created by clearing jungle areas near sources of fresh water.
  - D. They show shapes consistent with monumental platforms and dense central settlements linked to smaller settlements by a system of canals and roadways.

ID: f2ad6231 Answer

Correct Answer: D

Rationale

Choice D is the best answer. This finding, if true, would support the archaeologists’ conclusion. Dense central settlements linked to smaller ones would provide evidence of cities and suburbs—in other words, “a form of urbanism.”

Choice A is incorrect. This finding, if true, would weaken the archaeologists’ conclusion. Widely separated, small settlements with jungle in between would support the long-held belief that the Casarabe culture “was characterized by a sparse, widely distributed population and little intervention in the surrounding wilderness.” Choice B is incorrect. This choice wouldn’t support the researchers’ conclusion. These large cities are located outside Casarabe territory, which doesn’t show evidence of Casarabe urbanism. Choice C is incorrect. This finding wouldn’t support the archaeologists’ conclusion. Scattered small farms in jungle clearings are not good evidence to support the existence of cities (“a form of urbanism”).

Question Difficulty: Hard

# Question ID cd290e3c

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: cd290e3c

*The Land of Enchantment* is a 1906 travel book by Lilian Whiting. In the book, which describes the experience of traveling through the southwestern United States by train, Whiting reflects on the escape from everyday life that such a journey provides: \_\_\_\_\_

Which quotation from *The Land of Enchantment* most effectively illustrates the claim?

- A. "The opportunities and advantages already offered and constantly increasing are greater than would at first be considered possible."
- B. "The social and the picturesque charm of the long journey is singularly enhanced by the leisurely stops made for refreshment."
- C. "The real journey begins, of course, at Chicago, and as these trains leave in the evening the traveller fares forth in the seclusion of his berth."
- D. "One experiences a certain sense of detachment from ordinary day and daylight duties that is exhilarating."

ID: cd290e3c Answer

Correct Answer: D

Rationale

Choice D is the best answer because. This quotation specifically describes a "sense of detachment from ordinary day," which matches the claim's focus on "escape from everyday life."

Choice A is incorrect. While this quotation describes new opportunities associated with Whiting's experience, it doesn't frame these opportunities as "an escape," and it doesn't directly compare Whiting's journey with "everyday life." Choice B is incorrect. While this quotation includes a positive characterization of Whiting's journey, it doesn't specifically address the idea of an "escape from everyday life," which is the focus of the claim. Choice C is incorrect. This quotation focuses on where the journey begins, not on how it feels like an "escape from everyday life."

Question Difficulty: Hard

Question ID f7ac3147

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: f7ac3147

The presence of other individuals of the same species has been observed to mitigate stress in highly social mammals. To investigate whether this phenomenon, known as social buffering, also occurs in reptiles, researchers led by Chelsea E. Martin monitored stress responses in wild southern Pacific rattlesnakes (*Crotalus helleri*) in three experimental treatments: when alone, with a rope, and with a companion *C. helleri*. The researchers compared the percent change between baseline and peak heart rate in response to a (harmless) disturbance, with higher values indicating higher stress levels.

Which finding, if true, would most directly support the idea that social buffering occurs among *C. helleri*?

- A. The average percent change in heart rate was lower among *C. helleri* with a companion than among solitary *C. helleri* and *C. helleri* with a rope.
- B. Average peak heart rates were highest among solitary *C. helleri*, but no differences were observed in average peak heart rates between *C. helleri* with a companion and *C. helleri* with a rope.
- C. *C. helleri* with a companion displayed a lower average baseline heart rate and lower average peak heart rate than did solitary *C. helleri* or *C. helleri* with a rope.
- D. Solitary *C. helleri* had higher average baseline heart rates than did *C. helleri* in the other treatments, but the average percent change in heart rate was smaller among solitary *C. helleri* than among *C. helleri* with a companion.

ID: f7ac3147 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a finding that, if true, would most directly support the idea that social buffering—the mitigation of stress by the presence of other animals of the same species—occurs among *C. helleri*. According to the text, the researchers quantified the amount of stress in *C. helleri* as the percent change between baseline and peak heart rate, with higher values indicating greater stress. The text also describes the researchers’ three treatments: snakes alone, snakes with a rope, and snakes with a companion *C. helleri*. If the average percent change in heart rate was lower among snakes with a companion than among either solitary snakes or snakes with a rope, that would indicate two things: snakes accompanied by a companion experienced less stress than they did when alone, and the reduction wasn’t simply the result of any object being present, since the rope didn’t produce the same effect. Together, these results would directly support the conclusion that the companion’s presence mitigated stress, as the social buffering hypothesis predicts.

Choice B is incorrect because the finding compares peak heart rates among the three treatments rather than the percent change in heart rates among those treatments. The finding also indicates that snakes with a companion and snakes with a rope showed no differences in peak heart rates. If a rope produced the same effect as a companion did, that would suggest that the effect, whatever its extent, isn’t caused specifically by the presence of another individual of the same species and so wouldn’t support the social buffering hypothesis. Choice C is incorrect because the finding addresses absolute baseline and peak heart rates rather than the percent change between them, which is the measure of stress response the researchers used. Lower absolute heart

rates in companion-present snakes could reflect a generally calmer state but wouldn't show that the stress response to the disturbance was reduced and so wouldn't directly demonstrate social buffering as defined in the study. Choice D is incorrect because the finding states that the percent change in heart rate was smaller among solitary snakes than among snakes with a companion, which would indicate a smaller stress response when alone. This pattern would directly contradict the social buffering hypothesis rather than support it. Furthermore, a comparison of baseline heart rates would be immaterial for determining whether social buffering occurs among *C. helleri* because the text indicates that a change in heart rate, not average baseline heart rate, indicates a stress response.

Question Difficulty: Hard

Question ID 47564f39

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 47564f39

Employment by Sector in France and the United States, 1800–2012 (% of total employment)

| Year | Agriculture in France | Manufacturing in France | Services in France | Agriculture in US | Manufacturing in US | Services in US |
|------|-----------------------|-------------------------|--------------------|-------------------|---------------------|----------------|
| 1800 | 64                    | 22                      | 14                 | 68                | 18                  | 13             |
| 1900 | 43                    | 29                      | 28                 | 41                | 28                  | 31             |
| 1950 | 32                    | 33                      | 35                 | 14                | 33                  | 53             |
| 2012 | 3                     | 21                      | 76                 | 2                 | 18                  | 80             |

Rows in table may not add up to 100 due to rounding.

Over the past two hundred years, the percentage of the population employed in the agricultural sector has declined in both France and the United States, while employment in the service sector (which includes jobs in retail, consulting, real estate, etc.) has risen. However, this transition happened at very different rates in the two countries. This can be seen most clearly by comparing the employment by sector in both countries in \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. 1900 with the employment by sector in 1950.
- B. 1800 with the employment by sector in 2012.
- C. 1900 with the employment by sector in 2012.
- D. 1800 with the employment by sector in 1900.

ID: 47564f39 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents data from the table that most effectively complete the statement about the rates at which employment shifted in France and the United States. The text states that over the last two hundred years employment in the agricultural sector has declined while employment in the service sector has risen in both France and the US, and the data from the table reflect these trends. The text asserts, however, that the transition from agriculture to services “happened at very different rates in the two countries.” This assertion is best supported by a comparison of data from 1900 and 1950: the table shows that in those years, employment in agriculture went from 43% to 32% in France (a decline of 11 percentage points) and from 41% to 14% in the US (a decline of 27 percentage points), and that employment in services went from 28% to 35% in France (an increase of 7 percentage points) and from 31% to 53% in the US (an increase of 22 percentage points). In other words, the rate of change was greater in the US than in France for both sectors.

Choice B is incorrect because comparing the data for 1800 and 2012 would suggest a similar rate of change in the two countries, not very different rates: employment in agriculture went from 64% in 1800 to 3% in 2012 in France, which is close to the change from 68% in 1800 to 2% in 2012 in the US, while employment in services went from 14% in 1800 to 76% in 2012 in France, which is close to the change from 13% in 1800 to 80% in 2012 in the US. Choice C is incorrect because comparing the data for 1900 and 2012 would suggest a similar rate of change in the two countries rather than very different rates: employment in agriculture went from 43% in 1900 to 3% in 2012 in France, which is close to the change from 41% in 1900 to 2% in 2012 in the US, while employment in services went from 28% in 1900 to 76% in 2012 in France, which is close to the change from 31% in 1900 to 80% in 2012 in the US. Choice D is incorrect because comparing the data for 1800 and 1900 would suggest a similar rate of change in the two countries, not very different rates: employment in agriculture went from 64% in 1800 to 43% in 1900 in France, which is fairly close to the change from 68% in 1800 to 41% in 1900 in the US, while employment in services went from 14% in 1800 to 28% in 1900 in France, which is close to the change from 13% in 1800 to 31% in 1900 in the US.

Question Difficulty: Hard

Question ID 3c59a666

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 3c59a666

Swahili Speakers in Three African Countries

| Country                          | Approximate number of speakers (in millions) | Estimated % of population |
|----------------------------------|----------------------------------------------|---------------------------|
| Democratic Republic of the Congo | 22                                           | 25                        |
| Kenya                            | 55                                           | 100                       |
| Tanzania                         | 61                                           | 100                       |

Swahili is estimated to be the first language of up to 15 million people worldwide. It’s also an officially recognized language in Tanzania, Kenya, and the Democratic Republic of the Congo, which means these countries use Swahili in government documents and proceedings. But even in countries where almost everyone speaks Swahili, for many it isn’t their first language but is instead their second, third, or even fourth language.

Which choice most effectively uses data from the table to support the underlined claim?

- A. Tanzania has approximately 61 million Swahili speakers, which is much more than the estimated total number of people worldwide for whom Swahili is their first language.
- B. Tanzania is estimated to have at most 15 million Swahili speakers, while the country’s total population is approximately 61 million people.
- C. Approximately 100 percent of the people who speak Swahili as their first language live in Kenya, which has a total population of approximately 55 million people.
- D. Approximately 100 percent of Kenya’s population speaks Swahili, while only about 25 percent of the Democratic Republic of the Congo’s population speaks Swahili.

ID: 3c59a666 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the table to support the underlined claim. The text indicates that Swahili is the first language of up to 15 million people worldwide. The text goes on to claim, in the underlined portion, that even in countries where nearly everyone speaks Swahili, many of the language’s speakers don’t have Swahili as their first language. The table indicates that 61 million people in Tanzania, which amounts to 100 percent of the population, speak Swahili. If 61 million people in Tanzania speak Swahili, but only 15 million people worldwide have Swahili as their first language, that means there are many people in Tanzania who speak Swahili as a language other than their first language. This information about Swahili speakers in Tanzania therefore supports the claim that many Swahili speakers in countries where nearly everyone speaks Swahili speak it as a language other than their first language (such as their second, third, or fourth language).

Choice B is incorrect because it doesn't accurately describe information in the table. According to the table, Tanzania has 61 million Swahili speakers, not at most 15 million Swahili speakers. Additionally, the table indicates that 100 percent of Tanzania's population speak Swahili, which means that the number of Swahili speakers in the country and the country's total population should be the same, not that they should differ by such a large amount. Choice C is incorrect because there's no information in the table or the text that indicates where people who speak Swahili as their first language live. Although Kenya's total population can be inferred from the table—if Kenya has 55 million Swahili speakers and 100% of Kenya's population speak Swahili, then Kenya must have a population of 55 million people—nothing suggests that all the people who speak Swahili as their first language live in a single country, let alone that they all live in Kenya. Choice D is incorrect. Although the table does indicate that 100 percent of Kenya's population and 25 percent of the Democratic Republic of the Congo's population speak Swahili, this comparison is irrelevant to the claim that Swahili isn't the first language of many of its speakers even in countries where almost everyone speaks Swahili. On its own, a difference in the proportions of the population who speak Swahili cannot reveal whether those Swahili speakers have Swahili as their first language or a subsequent language.

Question Difficulty: Hard

# Question ID a2b2701d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a2b2701d

*An Ideal Husband* is an 1895 play by Oscar Wilde. In the play, which is a satire, Wilde suggests that a character named Lady Gertrude Chiltern is perceived as both extremely virtuous and unforgiving, as is evident when another character says \_\_\_\_\_

Which quotation from *An Ideal Husband* most effectively illustrates the claim?

- A. "Lady Chiltern is a woman of the very highest principles, I am glad to say. I am a little too old now, myself, to trouble about setting a good example, but I always admire people who do."
- B. "Do you know, [Lady Chiltern], I don't mind your talking morality a bit. Morality is simply the attitude we adopt towards people whom we personally dislike."
- C. "[Lady Chiltern] does not know what weakness or temptation is. I am of clay like other men. She stands apart as good women do—pitiless in her perfection—cold and stern and without mercy."
- D. "Lady Chiltern, you are a sensible woman, the most sensible woman in London, the most sensible woman I know."

ID: a2b2701d Answer

Correct Answer: C

Rationale

Choice C is the best answer because it most effectively uses a quotation to illustrate the claim that Lady Gertrude Chiltern is perceived as "both extremely virtuous and unforgiving." In the quotation, a man describes Lady Chiltern as someone who "does not know what weakness or temptation is." In other words, the man regards her as someone who is strong and adheres to a strict definition of moral perfection. However, he ironically suggests that this definition excludes mercy and forgiveness—qualities that are also thought of as virtues; according to him, Lady Chiltern is "pitiless in her perfection—cold and stern and without mercy." This description supports the idea that Lady Chiltern is perceived by others as virtuous as well as unforgiving.

Choice A is incorrect. The quotation supports the claim that Lady Chiltern is perceived as virtuous, in that it describes her as "a woman of the very highest principles." However, it doesn't characterize her as unforgiving or being perceived as such. Choice B is incorrect. The quotation suggests that Lady Chiltern is concerned with morality, but it suggests that her interest in discussing it is fundamentally hypocritical and functions as a means by which to judge others. However, the quotation doesn't address the question of whether Lady Chiltern is unmerciful to those who seek forgiveness for harm they have caused. Choice D is incorrect because it doesn't address either Lady Chiltern's perceived virtuousness or her perceived lack of forgiveness; instead, it expresses the belief that she is sensible.

Question Difficulty: Hard

Question ID c769d504

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: c769d504

In 1534 CE, King Henry VIII of England split with the Catholic Church and declared himself head of the Church of England, in part because Pope Clement VII refused to annul his marriage to Catherine of Aragon. Two years later, Henry VIII introduced a policy titled the Dissolution of the Monasteries that by 1540 had resulted in the closure of all Catholic monasteries in England and the confiscation of their estates. Some historians assert that the enactment of the policy was primarily motivated by perceived financial opportunities.

Which quotation from a scholarly article best supports the assertion of the historians mentioned in the text?

- A. "At the time of the Dissolution of the Monasteries, about 2 percent of the adult male population of England were monks; by 1690, the proportion of the adult male population who were monks was less than 1 percent."
- B. "A contemporary description of the Dissolution of the Monasteries, Michael Sherbrook's *Falle of the Religious Howses*, recounts witness testimony that monks were allowed to keep the contents of their cells and that the monastery timber was purchased by local yeomen."
- C. "In 1535, the year before enacting the Dissolution of the Monasteries, Henry commissioned a survey of the value of church holdings in England—the work, performed by sheriffs, bishops, and magistrates, began that January and was swiftly completed by the summer."
- D. "The October 1536 revolt known as the Pilgrimage of Grace had several economic motives: high food prices due to a poor harvest the prior year; the Dissolution of the Monasteries, which closed reliable sources of food and shelter for many; and rents and taxes throughout Northern England that were not merely high but predatory."

ID: c769d504 Answer

Correct Answer: C

Rationale

Choice C is the best answer. The fact that Henry VIII commissioned a survey of church holdings just before enacting the Dissolution of the Monasteries suggests that he was interested in the potential profits from claiming their assets. This supports the historians' assertion.

Choice A is incorrect. This choice describes a potential effect of the Dissolution of the Monasteries. The decrease in the proportion of monks in England isn't relevant to the question of Henry VIII's motivations. Choice B is incorrect. Details about how the monks were treated during the dissolution don't address Henry VIII's motivations for enacting the policy in the first place. That the monks could keep the content of their cells (their rooms) and sell off the timber they'd harvested has no impact on the value of the monasteries' estates—their land holdings. Choice D is incorrect. This choice mentions one impact that the Dissolution of the Monasteries contributed to, two years after it happened. But it doesn't help explain why Henry VIII might have wanted to enact the policy in the first place.

Question Difficulty: Hard

# Question ID d6d3d811

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: d6d3d811

Black beans (*Phaseolus vulgaris*) are a nutritionally dense food, but they are difficult to digest in part because of their high levels of soluble fiber and compounds like raffinose. They also contain antinutrients like tannins and trypsin inhibitors, which interfere with the body’s ability to extract nutrients from foods. In a research article, Marisela Granito and Glenda Álvarez from Simón Bolívar University in Venezuela claim that inducing fermentation of black beans using lactic acid bacteria improves the digestibility of the beans and makes them more nutritious.

Which finding from Granito and Álvarez’s research, if true, would most directly support their claim?

- A. When cooked, fermented beans contained significantly more trypsin inhibitors and tannins but significantly less soluble fiber and raffinose than nonfermented beans.
- B. Fermented beans contained significantly less soluble fiber and raffinose than nonfermented beans, and when cooked, the fermented beans also displayed a significant reduction in trypsin inhibitors and tannins.
- C. When the fermented beans were analyzed, they were found to contain two microorganisms, *Lactobacillus casei* and *Lactobacillus plantarum*, that are theorized to increase the amount of nitrogen absorbed by the gut after eating beans.
- D. Both fermented and nonfermented black beans contained significantly fewer trypsin inhibitors and tannins after being cooked at high pressure.

ID: d6d3d811 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that would best support Granito and Álvarez’s claim that fermenting black beans makes them easier to digest and more nutritious. The text indicates that high levels of soluble fiber and raffinose in black beans make the beans hard to digest and that tannins and trypsin inhibitors make it harder for the body to extract nutrients from the beans. If it were found that fermenting the beans significantly reduces their levels of soluble fiber, raffinose, trypsin inhibitors, and tannins when cooked, this would directly support the claim that fermentation improves the digestibility of the beans and makes them more nutritious.

Choice A is incorrect because the text indicates that trypsin inhibitors and tannins interfere with the body’s ability to extract nutrients from black beans; if fermentation and cooking were found to increase these antinutrients, fermented beans would likely be less nutritious than unfermented ones, not more nutritious (as Granito and Álvarez claim). Choice C is incorrect because the text doesn’t address the idea that greater nitrogen absorption in the gut has an effect on a food’s digestibility or level of nutrition, so the discovery of the presence of microorganisms that may increase nitrogen absorption wouldn’t provide relevant support for the claim that fermentation makes black beans easier to digest and more nutritious. Choice D is incorrect because Granito and Álvarez’s claim focuses on the effect of fermenting black beans, but the finding that nonfermented black beans also have fewer

trypsin inhibitors and tannins when cooked at high pressure would suggest that the role of the cooking method could be significant when it comes to nutrition; further, the finding wouldn't address the beans' digestibility.

Question Difficulty: Hard

# Question ID 0151f107

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 0151f107

Several studies of sediment (e.g., dirt, pieces of rock, etc.) in streams have shown an inverse correlation between sediment grain size and downstream distance from the primary sediment source, suggesting that stream length has a sorting effect on sediment. In a study of sediment sampled at more than a dozen sites in Alpine streams, however, geologists Camille Litty and Fritz Schlunegger found that cross-site variations in grain size were not associated with differences in downstream distance, though they did not conclude that downstream distance is irrelevant to grain size. Rather, they concluded that sediment influx in these streams may have been sufficiently spatially diffuse to prevent the typical sorting effect from being observed.

Which finding about the streams in the study, if true, would most directly support Litty and Schlunegger’s conclusion?

- A. The streams regularly experience portions of their banks collapsing into the water at multiple points upstream of the sampling sites.
- B. The streams contain several types of sediment that are not typically found in streams where the sorting effect has been demonstrated.
- C. The streams mostly originate from the same source, but their lengths vary considerably due to the different courses they take.
- D. The streams are fed by multiple tributaries that carry significant volumes of sediment and that enter the streams downstream of the sampling sites.

ID: 0151f107 Answer

Correct Answer: A

Rationale

Choice A is the best answer. This finding would support the conclusion. If stream banks are collapsing into the water at multiple points, then sediment is getting into the water at those various points. This supports the conclusion that the inflow of sediment is very spread out.

Choice B is incorrect. This finding wouldn’t support the conclusion. The conclusion is about the influx of sediment being “spatially diffuse,” meaning spread out over a large area. The type of sediment wouldn’t have an impact on the conclusions. Choice C is incorrect. This finding wouldn’t support the conclusion. It doesn’t say anything about the influx of sediment being “spatially diffuse” (spread out). Choice D is incorrect. This finding wouldn’t support the conclusion. Any sediment that enters downstream of the sampling sites wouldn’t end up in the samples, so it wouldn’t affect the findings or the conclusion.

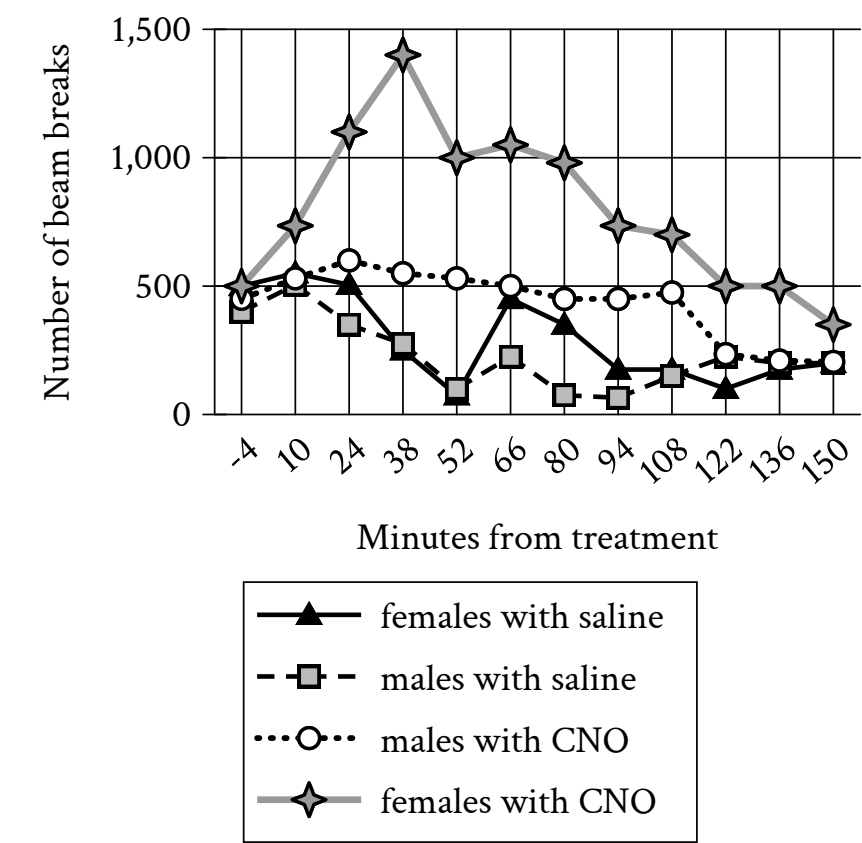
Question Difficulty: Hard

Question ID a8a74b0b

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
|----------------------|---------------------|-----------------------|---------------------|-------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: a8a74b0b

Number of Infrared Beam Breaks by Mice  
Treated with CNO or Saline, by Sex



To investigate the influence of certain estrogen-responsive neurons on energy expenditure, biologist Stephanie Correa et al. treated female and male mice with either saline solution or clozapine-N4-oxide (CNO), which activates the neurons. Monitoring the activity levels of the mice by measuring how frequently the animals broke infrared beams crossing their enclosures, Correa et al. found that the mice in their study showed sex-specific differences in response to neuron activation: \_\_\_\_\_

Which choice most effectively uses data from the graph to complete the assertion?

- A. the four groups of mice differed greatly in their activity levels before treatment but showed identical activity levels at the end of the monitoring period.
- B. saline-treated females showed substantially more activity at certain points in the monitoring period than saline-treated males did.
- C. CNO-treated females showed more activity relative to saline-treated females than CNO-treated males showed relative to saline-treated males.

D. CNO-treated females showed a substantial increase and then decline in activity over the monitoring period, whereas CNO-treated males showed a substantial decline in activity followed by a steep increase.

**ID: a8a74b0b Answer**

Correct Answer: C

Rationale

Choice C is the best answer. The graph shows that the CNO-treated females were way more active than the CNO-treated males, while the saline-treated males and females (the control groups) had very similar activity levels. This supports the claim that there were sex-specific differences in the mice's response to neuron activation.

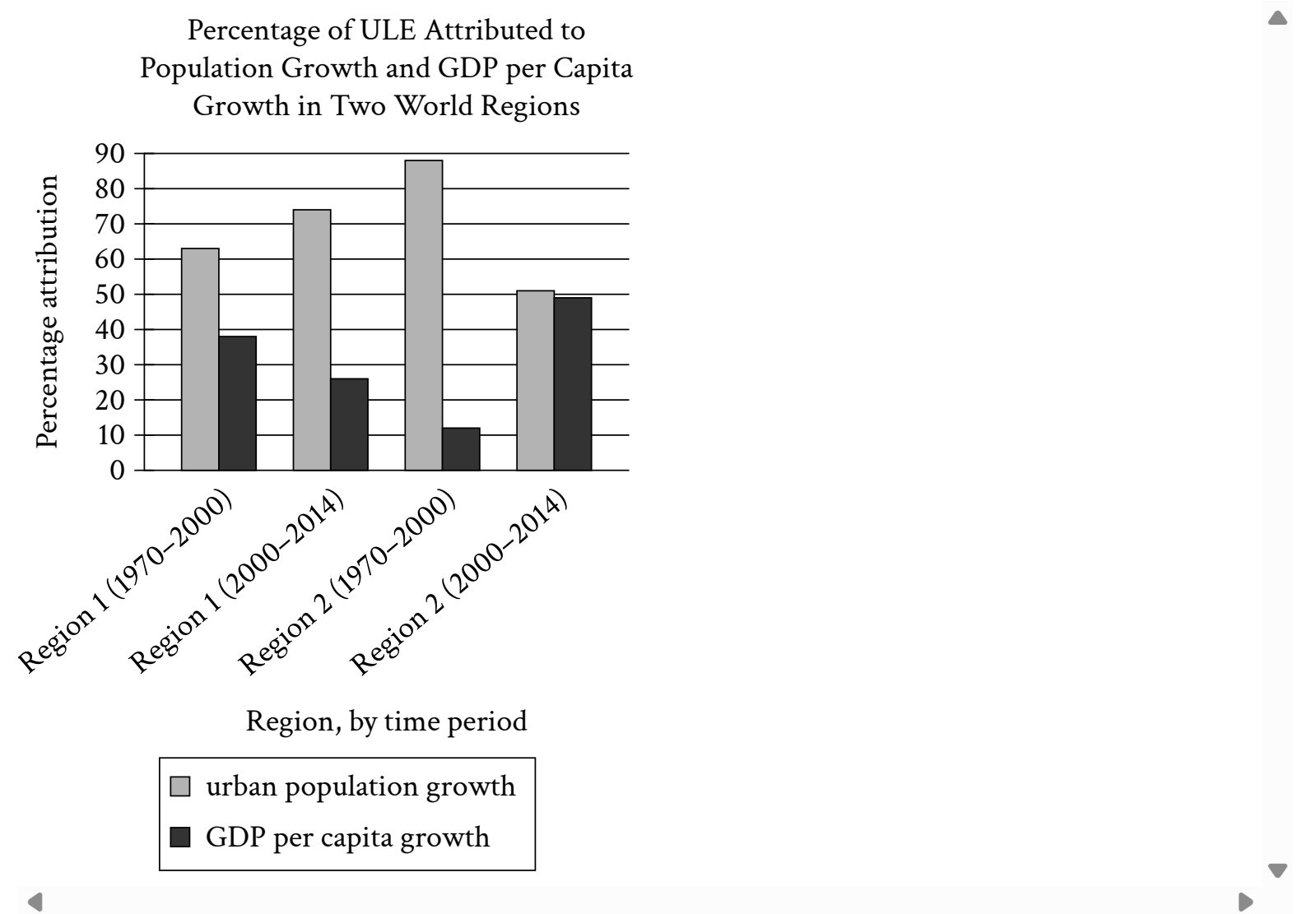
Choice A is incorrect. This choice misreads the graph. All four groups of mice started at nearly the same activity level before treatment (see how all four points are very close together at -4 minutes, meaning four minutes before treatment). Choice B is incorrect. This choice doesn't complete the assertion. The assertion is about the mice's response to neuron activation, so we need to include the data about the CNO-treated females and males. Choice D is incorrect. This choice misreads the graph. The line for the CNO-treated males does not show a "substantial decline" until around 122 minutes, and there is no "steep increase" afterward.

Question Difficulty: Hard

Question ID ab346a98

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: ab346a98



In a study of urban physical expansion, Richa Mahtta et al. conducted a meta-analysis of more than 300 cities worldwide to determine whether urban land expansion (ULE) was more strongly influenced by urban population growth or by growth in gross domestic product (GDP) per capita, a measure of economic activity. Because efficient national government is necessary to provide urban services and infrastructure that attract economic investment, Mahtta et al. propose that absent other factors, the importance of GDP per capita growth to ULE would likely increase relative to the importance of population growth as governments become more efficient. If true, this suggests the possibility that \_\_\_\_\_

Which choice most effectively uses data from the graph to complete the statement?

- A. national governments of countries in Region 1 experienced declines in efficiency in the period from 2000 to 2014, relative to the period from 1970 to 2000.

- B. countries in Region 1 experienced a slower rate of economic growth in the period from 2000 to 2014 than countries in Region 2 did, despite increasing national government efficiency in Region 1.
- C. national governments of most countries in Region 2 became more efficient in the period from 2000 to 2014 than they had been in the period from 1970 to 2000, but those of several countries in this region did not.
- D. national governments of countries in Region 1 and in Region 2 generally became more efficient in the period from 2000 to 2014 than they had been in the period from 1970 to 2000, but at different rates.

**ID: ab346a98 Answer**

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the graph to complete the statement about Mahtta et al.'s proposal regarding factors that affect urban land expansion (ULE). According to the text, ULE is influenced by urban population growth and by gross domestic product (GDP) growth per capita. Reasoning that efficient national governments provide urban services and infrastructure needed to attract economic investment, Mahtta et al. suggest that, as governments become more efficient at providing urban services and infrastructure, GDP growth per capita will account for more ULE and urban population growth will account for less. But according to the graph, Region 1 saw an increase in the percentage attributed to urban population growth from 1970–2000 (between 60 and 65%) to 2000–2014 (between 70 and 75%) and a decrease in the percentage attributed to GDP growth per capita from 1970–2000 (between 35 and 40%) to 2000–2014 (about 25%). Because the percentage attributed to GDP growth per capita decreased (the opposite of what Mahtta et al. claimed would happen if the governments had become more efficient), the data suggest that the governments of Region 1 became less efficient at providing urban services and infrastructure over that period.

Choice B is incorrect. Neither the graph nor the text gives the regions' relative levels of economic growth or what effect Mahtta et al. would expect such growth to have. Furthermore, Mahtta et al.'s proposal suggests that Region 1's decline in the percentage of ULE attributed to GDP growth per capita from 1970–2000 (between 35 and 40%) to 2000–2014 (about 25%) would suggest decreasing, not increasing, government efficiency over this time. Choice C is incorrect. Neither the text nor the graph provides information about the relative efficiencies of different governments in Region 2. Choice D is incorrect. Mahtta et al.'s proposal suggests that more efficient governments will have a higher percentage of their ULE driven by GDP growth per capita and a lower percentage driven by urban population growth. For Region 2, the percentage of ULE attributed to GDP growth per capita increased from 1970–2000 (between 10 and 15%) to 2000–2014 (between 45 and 50%), but the opposite is true for Region 1, which saw the percentage of ULE attributed to GDP growth per capita decline over the same period. Thus, whereas the data suggest governments in Region 2 became more efficient, the data for Region 1 suggest that those governments became less efficient, not more.

Question Difficulty: Hard

# Question ID d2899dce

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: d2899dce

In subtropical Asia, *Apis dorsata* (giant honeybee) plays an essential role in pollinating a wide variety of crops and wild plants. To study how different agricultural land covers affect the species, Rika Raffiudin and colleagues monitored the foraging activity of the bees as well as the pollen content of the honey from *A. dorsata* colonies at two sites in Indonesia: Kampar, characterized by its surrounding monoculture farms (growing a single crop), and Kerinci, a forest-agriculture site where multiple crops, including hot peppers and coffee, are grown nearby. The researchers concluded that a lack of crop variety may reduce total pollen collection by *A. dorsata*.

Which finding, if true, would most directly support the researchers’ conclusion?

- A. Pollen in honey samples from Kampar bee colonies was predominantly sourced from a single plant species, whereas pollen in honey samples from Kerinci bee colonies was sourced from multiple different plant species.
- B. In one Kerinci bee colony, a greater proportion of bees returned to their nests with pollen than returned without pollen, whereas the inverse was observed in a second Kerinci bee colony.
- C. Significantly fewer bees were observed engaging in foraging activities with the crops surrounding Kerinci than with the crops surrounding Kampar.
- D. Honey samples from Kerinci bee colonies contained significantly higher concentrations of pollen than honey samples from Kampar bee colonies did.

ID: d2899dce Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would most directly support the researchers’ conclusion that a lack of crop variety may reduce total pollen collection by *A. dorsata*. The text explains that the researchers compared two sites: Kampar, which is surrounded by farms all growing the same crop, and Kerinci, which is a forest-agriculture site with multiple crops. If honey samples from Kerinci bee colonies contained significantly higher pollen concentrations than honey samples from Kampar bee colonies did, this finding would suggest that bees in the multiple-crop environment collected more pollen overall, thereby supporting the conclusion that the low crop variety at the Kampar site corresponds with reduced total pollen collection.

Choice A is incorrect because this finding addresses the diversity of pollen sources—single species at the Kampar site versus multiple species at the Kerinci site—not the total quantity of pollen collected. Choice B is incorrect because this finding compares two colonies within Kerinci rather than comparing the two sites and it concerns whether bees returned with pollen, which doesn’t address the total quantity of pollen collected. Choice C is incorrect because the finding that fewer bees foraged at Kerinci—the higher-variety site—than at Kampar doesn’t address the conclusion about total pollen collected. If anything, a lower number of foraging bees would suggest reduced activity and hence a lower amount of pollen collected in the variety-rich environment, which would undermine rather than support the researchers’ conclusion.

Question Difficulty: Hard

Question ID f797e81c

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: f797e81c

Fiber Characteristics of Mouflon, Navajo-Churro, and Spanish Merino Sheep

| Type of sheep  | Diameter of outer coat fibers (in microns) | Diameter of inner coat fibers (in microns) |
|----------------|--------------------------------------------|--------------------------------------------|
| Spanish Merino | 19–24                                      | 17–21                                      |
| Navajo-Churro  | 35 or higher                               | 10–35                                      |
| Mouflon        | 150                                        | 15                                         |

Domestic sheep’s wild ancestor, the mouflon, has a coarse outer coat and an inner coat of wool fiber that is finer in diameter and therefore much softer. In some domestic breeds, such as the Spanish Merino, the outer fiber is only marginally coarser than the inner, and the wool is soft overall. Thus, Merino wool is ideal for delicate garments worn against the skin. Meanwhile, the Navajo-Churro has been selected to retain the marked distinction between outer and inner fiber that the Merino has lost. Being coarser than Merino wool overall, Navajo-Churro wool yields a more durable yarn, which Diné (Navajo) weavers use in their celebrated rugs. Yet a comparison of the fiber characteristics of all three sheep reveals that \_\_\_\_\_

Which choice most effectively uses data from the table to complete the text?

- A. the selection process that enabled the Navajo-Churro to retain its somewhat coarse outer fiber also resulted in inner fiber that, at its softest, is softer than either the mouflon’s or the Merino’s inner fiber.
- B. the Navajo-Churro more closely resembles its ancestor, the mouflon, in the uniform softness of its inner fiber, while the Merino more closely resembles the mouflon in the variable diameter of its outer fiber.
- C. domestication resulted in a counterintuitive increase in the inner fiber’s minimum diameter, making the inner fiber of the Merino and the Navajo-Churro less suitable for delicate garments than the mouflon’s inner fiber is.
- D. the domestication of the mouflon and the subsequent selection process that produced the Merino and the Navajo-Churro resulted in greater softness of outer and inner fiber alike.

ID: f797e81c Answer

Correct Answer: A

Rationale

Choice A is the best answer because it accurately uses data from the table to complete the statement about the fibers of three types of sheep. The text discusses some qualities of outer and inner fibers of mouflons, Spanish Merino sheep, and Navajo-Churro sheep and indicates that sheep fibers with finer, or smaller, diameters are softer than fibers with larger diameters. The text then sets up a conclusion that can be made by comparing the fibers of all three sheep types. The table shows that the minimum diameter of the Navajo-Churro’s inner fibers is 10 microns, which is smaller than the minimum diameters of the inner fibers of both the mouflon (15 microns) and the Spanish Merino (17 microns). Thus, comparing the fiber characteristics of all three sheep reveals that at its softest, the inner fiber of the Navajo-Churro is softer than either the mouflon’s or the Merino’s inner fiber.

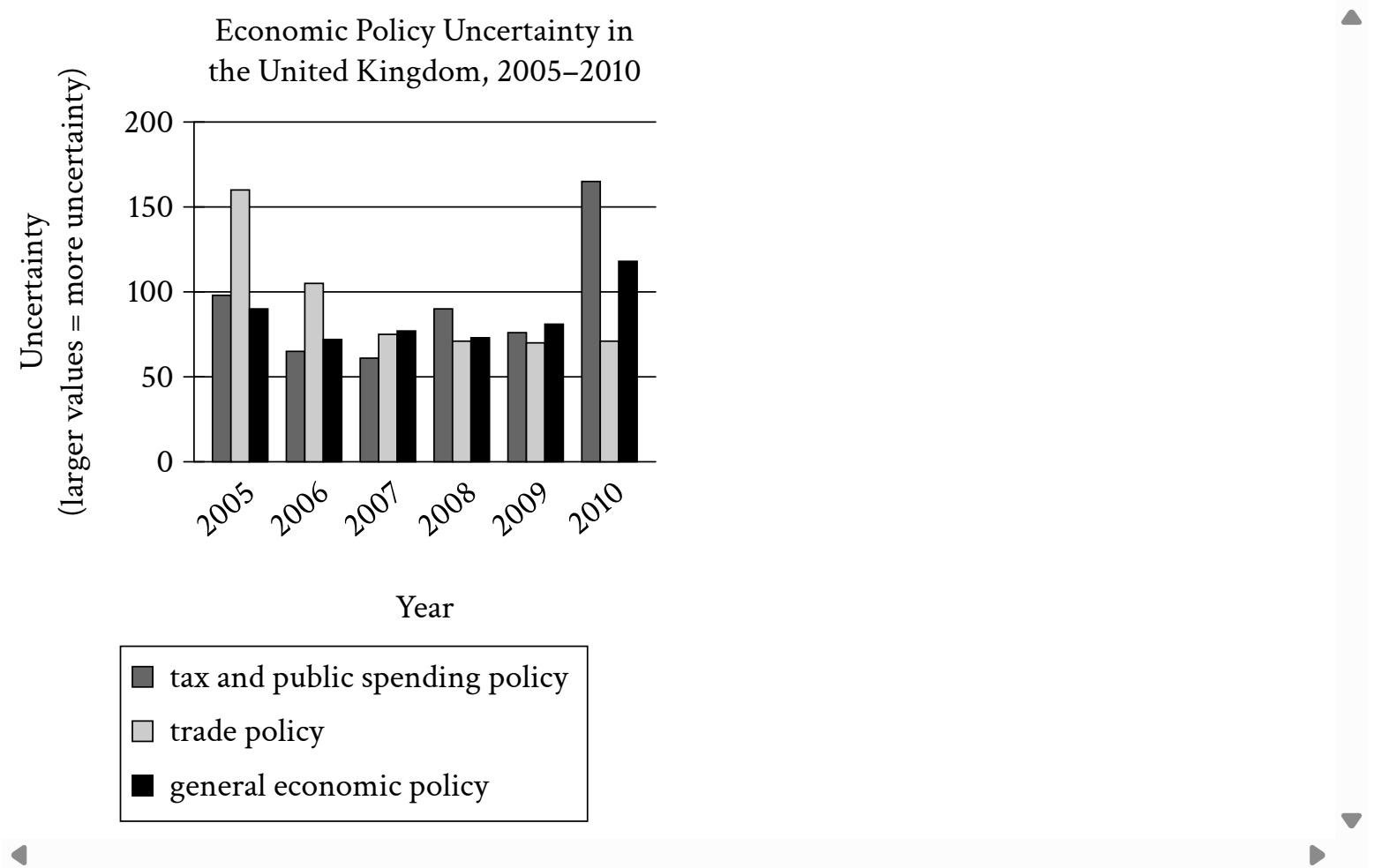
Choice B is incorrect because it doesn't accurately describe the data in the table. The table shows that the softness of Navajo-Churro inner fiber isn't uniform (since the diameter of Navajo-Churro inner fiber ranges from 10 microns to 35 microns) and that the diameter of the outer fiber of the mouflon isn't variable (rather, it is a uniform 150 microns). Choice C is incorrect because it doesn't accurately describe the data in the table. The text indicates that both Spanish Merino sheep and Navajo-Churro sheep were domesticated from mouflon sheep. The table doesn't show that domestication increased the minimum diameter of inner fibers for both Spanish Merino sheep and Navajo-Churro sheep from the 15-micron diameter of mouflon inner fibers: the minimum diameter of Spanish Merino increased to 17 microns, but the minimum diameter of Navajo-Churro inner fibers *decreased* to 10 microns. Choice D is incorrect because it doesn't accurately describe the data in the table. The text explains that sheep fibers with finer, or smaller, diameters are softer than fibers with larger diameters. The table does show that Spanish Merino outer fibers are finer, and thus softer, than mouflon outer fibers and that at their finest, Navajo-Churro outer fibers are softer than mouflon outer fibers, but it also shows that Spanish Merino inner fibers are less soft than mouflon inner fibers, since their minimum diameter is greater than 15 microns, and that Navajo-Churro inner fibers can be less soft than mouflon inner fibers, since the diameter ranges up to 35 microns.

Question Difficulty: Hard

Question ID c0e1f7de

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: c0e1f7de



High levels of public uncertainty about which economic policies a country will adopt can make planning difficult for businesses, but measures of such uncertainty have not tended to be very detailed. Recently, however, economist Sandile Hlatshwayo analyzed trends in news reports to derive measures not only for general economic policy uncertainty but also for uncertainty related to specific areas of economic policy, like tax or trade policy. One revelation of her work is that a general measure may not fully reflect uncertainty about specific areas of policy, as in the case of the United Kingdom, where general economic policy uncertainty \_\_\_\_\_

Which choice most effectively uses data from the graph to illustrate the claim?

- A. aligned closely with uncertainty about tax and public spending policy in 2005 but differed from uncertainty about tax and public spending policy by a large amount in 2009.
- B. was substantially lower than uncertainty about tax and public spending policy each year from 2005 to 2010.
- C. reached its highest level between 2005 and 2010 in the same year that uncertainty about trade policy and tax and public spending policy reached their lowest levels.

D. was substantially lower than uncertainty about trade policy in 2005 and substantially higher than uncertainty about trade policy in 2010.

**ID: c0e1f7de Answer**

Correct Answer: D

Rationale

Choice D is the best answer because it uses data from the graph to effectively illustrate the text's claim about general economic policy uncertainty in the United Kingdom. The graph presents values for economic policy uncertainty in tax and public spending policy, trade policy, and general economic policy in the UK from 2005 to 2010. The graph shows that in 2005, the value for general economic policy uncertainty (approximately 90) was substantially lower than the value for uncertainty about trade policy specifically (approximately 160). It also shows that in 2010, the value for general economic policy uncertainty (approximately 120) was substantially higher than the value for uncertainty about trade policy (approximately 70). The substantial differences between these values in 2005 and 2010 support the claim that a general measure may not fully reflect uncertainty about specific areas of policy.

Choice A is incorrect because the graph shows that the level of general economic policy uncertainty was similar to the level of uncertainty about tax and public spending policy in both 2005 (with values of approximately 90 and 100, respectively) and 2009 (with values of approximately 80 and 75, respectively). Choice B is incorrect because the graph shows that general economic policy uncertainty was higher than uncertainty about tax and public spending policy in 2006, 2007, and 2009, not that it was lower each year from 2005 to 2010. Choice C is incorrect because the graph shows that general economic policy uncertainty reached its highest level in 2010, which was when uncertainty about tax and public spending policy also reached its highest level, not its lowest level.

Question Difficulty: Hard

Question ID 792a8a87

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 792a8a87

In Diné (Navajo) culture, *ikaah* (sandpaintings) are created and then erased as part of sacred healing ceremonies lasting no more than a few days, but Diné *hataalii* (chanter, healer, cultural guide) Fred Stevens developed fixatives to preserve desacralized sandpaintings. While on a US-sponsored cultural ambassadorial trip in Europe and the Americas in the 1960s, Stevens produced several such sandpaintings and gave them to cultural institutions. This may seem in tension with the role of cultural ambassador—how could static objects authentically represent an inherently ephemeral and dynamic practice?—but such a view is itself overly object-focused and neglects how Stevens strove to convey exactly those characteristics of *ikaah* as a cultural practice.

Which quotation from an art historian would most directly support the claim made in the text?

- A. "While Stevens’s ambassadorial sandpaintings are undoubtedly educative for audiences that have little exposure to Diné culture, they should not be confused with authentic *ikaah*, which cannot be extricated from a practice that is intentionally and necessarily transitory nor condensed into a single persistent object."
- B. "The most compelling way to reconcile the apparent tension between the temporary and performative nature of *ikaah* and the persistent and static nature of Stevens’s ambassadorial sandpaintings is to recognize that Stevens was an ambassador not only of Diné culture but of a US art culture that tended to value permanent works over ephemeral ones."
- C. "Stevens’s ambassadorial sandpaintings are best understood not as self-contained objects but as reminders of the public creations of the sandpaintings, during which Stevens conducted appropriate *ikaah* rituals and encouraged viewers to closely track his movements and subtle shifts in the sand throughout the process."
- D. "It is important to recall Stevens’s own actions as a gift-giver—a temporary and performative role—of the sandpaintings, for by taking those actions, Stevens publicly enacted the transmission of knowledge of both traditional *ikaah* practices and cutting-edge chemistry (in the form of the preservative additives), a hybrid that reflects the dynamism of Diné culture."

ID: 792a8a87 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it most directly supports the text’s claim that Stevens strove to convey the ephemeral and dynamic characteristics of *ikaah* as a cultural practice. The text challenges the characterization of Stevens’s preserved sandpaintings as mere “static objects” that cannot “authentically represent” a practice defined in part by the absence of an end product; it claims instead that this “overly object-focused” interpretation overlooks how Stevens preserved the essential characteristics of traditional *ikaah* practice. This quotation supports the claim by explaining that Stevens’s sandpaintings should be understood “not as self-contained objects but as reminders of the public creations of the sandpaintings,” during which Stevens “conducted appropriate *ikaah* rituals and encouraged viewers to closely track his movements and subtle shifts in the sand throughout the process.” The fact that Stevens created the sandpaintings in a public setting and invited viewers to attentively engage with this process supports the claim that he sought to portray *ikaah* as a dynamic practice rather than as a static product. Further, the inherently impermanent nature of such a performance evokes the ephemerality that characterizes *ikaah*.

Choice A is incorrect because it contradicts rather than supports the text’s claim that Stevens strove to convey the ephemeral and dynamic characteristics of *ikaah* as a cultural practice. This quotation argues that Stevens’s preserved sandpaintings “should not be confused with authentic *ikaah*” and emphasizes that authentic *ikaah* “cannot be extricated from a practice that is intentionally and necessarily transitory.” This view aligns with the “overly object-focused” perspective that the text argues against, rather than supporting the claim that Stevens successfully conveyed *ikaah*’s ephemeral and dynamic characteristics. Choice B is incorrect because it focuses on reconciling the tension between ephemeral and permanent forms rather than supporting the claim that Stevens actively conveyed *ikaah*’s ephemeral and dynamic characteristics. While this quotation acknowledges an apparent contradiction, it suggests that Stevens was accommodating US preferences for permanent artworks; it doesn’t demonstrate how he communicated the ephemeral and dynamic nature of traditional *ikaah* practice. Choice D is incorrect. Although the quotation mentions Stevens’s “temporary and performative role” as a gift-giver, it doesn’t address how Stevens conveyed the ephemeral and dynamic characteristics of *ikaah* itself during his ambassadorial activities. The quotation focuses on Stevens’s role in transmitting knowledge and representing cultural dynamism but doesn’t specifically support the claim about his efforts to communicate the essential characteristics of *ikaah* practice. Further, the quotation incorrectly implies that Stevens shared his knowledge of preservative additives; the text doesn’t establish that he revealed how the sandpaintings were preserved.

Question Difficulty: Hard

# Question ID c310fcd1

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: c310fcd1

*There Is Confusion* is a 1924 novel by Jessie Redmon Fauset. In the novel, the narrator portrays the character Joanna as someone who admires ambition in other people to the exclusion of all other qualities: \_\_\_\_\_

Which quotation from *There Is Confusion* most effectively illustrates the claim?

- A. “Joanna was mightily interested in people who had a ‘purpose’ in life. Otherwise not at all.”
- B. “Indeed from the very beginning Joanna showed her preference for her father.”
- C. “Joanna was like her father not only so far as ambition was concerned but also in her willingness to work.”
- D. “She had a good sense of logic, a strong power of concentration, and a remarkably retentive and visualizing memory.”

ID: c310fcd1 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively presents a quotation from *There Is Confusion* that illustrates the claim that the narrator portrays Joanna as admiring the quality of ambition, or the determination to achieve something, and no other qualities in other people. By describing Joanna as not being interested in people unless they have "a ‘purpose’ in life"—that is, a goal they are determined to achieve—in which case she is very interested in them, the quotation reveals that Joanna cares only about others’ ambition.

Choice B is incorrect because this quotation indicates only that Joanna has a preference for her father, without giving a reason for that preference; therefore, it doesn’t illustrate the claim that Joanna cares only about others’ ambition. Choice C is incorrect because this quotation doesn’t illustrate that Joanna greatly admires the quality of ambition in others; it refers to Joanna’s similarity to her father "so far as ambition was concerned" but doesn’t reveal how she (or her father) views that quality. Choice D is incorrect because this quotation describes qualities Joanna possesses—praising her logic, concentration, and memory—instead of Joanna’s interest in other people’s qualities.

Question Difficulty: Hard

Question ID 1daf8efa

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 1daf8efa

Although Eastern North Pacific (ENP) gray whales generally migrate between their wintering waters along the coast of Mexico and their foraging waters in the Arctic, a subset of this population—known as the Pacific Coast Feeding Group (PCFG)—forages along the coastlines of Northern California (USA) and British Columbia (Canada) instead. Interestingly, individuals in this subset reach smaller maximum sizes than other ENP whales do, despite having similar pre-maximum growth rates. Researchers hypothesize that this difference may be an adaptation to distinct resource opportunities in the PCFG foraging range.

Which finding, if true, would most directly support the researchers’ claim regarding the size of PCFG whales?

- A. The average body size of PCFG whales observed along the coasts of Northern California and British Columbia has remained relatively steady in recent decades, while the average body size of ENP whales in the main group has slightly decreased.
- B. When present along the coasts of Northern California and British Columbia, PCFG whales tend to forage in rocky kelp beds at shallow depths inaccessible to whales as large as those in the ENP main group.
- C. When foraging along the coasts of Northern California and British Columbia, PCFG whales are in closer proximity to major ports and urban populations than ENP whales in the main group are when foraging in Arctic waters.
- D. Certain crustacean prey species available along the coasts of Northern California and British Columbia where PCFG whales tend to forage are not available in the Arctic waters where ENP whales in the main group forage.

ID: 1daf8efa Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support the researchers’ hypothesis that the smaller maximum size of PCFG whales is an adaptation to resource opportunities particular to their foraging range. The text explains that PCFG whales, a subgroup of ENP gray whales, forage along the coasts of Northern California and British Columbia rather than in the Arctic, where the main ENP group forages. The text goes on to state that PCFG whales reach smaller maximum sizes than other ENP gray whales despite having similar pre-maximum growth rates. If PCFG whales tend to forage in shallow, rocky kelp beds that whales as large as those in the main group cannot access, that would indicate that smaller body size confers a direct advantage in this foraging range—namely, access to a food source that larger whales cannot reach.

Choice A is incorrect because a finding describing recent trends in average body size for both groups of whales wouldn’t address whether the smaller maximum size of PCFG whales reflects an adaptation to their foraging environment. Recent stability or change in average size doesn’t speak to why the size difference between PCFG whales and the main ENP group exists. Choice C is incorrect because a finding about PCFG whales’ proximity to ports and urban populations wouldn’t address the resources available to PCFG whales or the relationship between body size and foraging. Proximity to human activity is irrelevant to a hypothesis about body size being an adaptation to resource opportunities. Choice D is incorrect. Although a finding about a certain prey species being available in the PCFG whales’ foraging waters but not in the main group of ENP whales’ foraging waters would establish that the PCFG foraging range offers distinct prey species, it wouldn’t connect the availability of those prey

species to body size in a way that would explain the PCFG whales' smaller size. Without indicating that the available prey in the PCFG range favors smaller whales, the finding falls short of supporting the hypothesis that smaller size is an adaptation to resource opportunities.

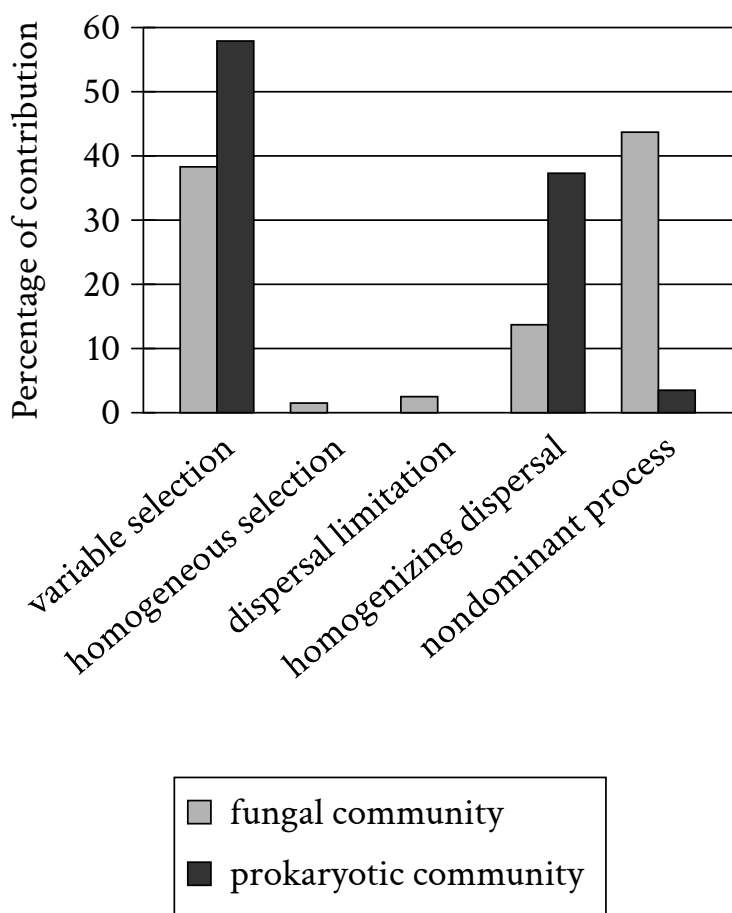
Question Difficulty: Hard

Question ID 45d99965

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 45d99965

Relative Contributions of Processes to Prokaryotic and Fungal Community Assembly in Qinghai-Tibetan Lakes



In a 2020 study, Jian Yang et al. examined prokaryotic and fungal microbial communities in Qinghai-Tibetan Plateau lake sediment to understand the relative contributions of various factors to community assembly, or formation. They quantified the contributions of environmental pressures (variable and homogeneous selection), dispersal limitation, homogenizing dispersal, and nondominant processes. Tolerance of environmental pressures is known to be higher in fungi than in prokaryotes, which the researchers hypothesize accounts for the finding that \_\_\_\_\_

Which choice most effectively uses data from the graph to complete the statement?

- A. homogenizing dispersal contributed substantially less to fungal community assembly than variable selection did.
- B. the total number of factors that contributed to community assembly was greater for prokaryotes than for fungi.
- C. variable selection contributed substantially less to fungal community assembly than to prokaryote community assembly.

D. the contribution of homogeneous selection to community assembly was negligible for both fungi and prokaryotes.

**ID: 45d99965 Answer**

Correct Answer: C

Rationale

Choice C is the best answer because it most effectively uses data from the graph to complete the statement about the researchers' hypothesis regarding a finding. The text states that the researchers attribute a certain finding about community assembly in fungi and prokaryotes to the fact that fungi have a higher tolerance for environmental pressures than do prokaryotes. This finding, then, would be explained by the fact that fungi better tolerate environmental pressures, which the text defines as including variable and homogeneous selection. According to the graph, the contribution of variable selection to community assembly was nearly 40 percent for fungi but nearly 60 percent for prokaryotes, indicating that variable selection contributed significantly less to fungal community assembly than to prokaryotic community assembly. This finding aligns with the researchers' hypothesis: because fungi tolerate environmental pressures like variable selection better than prokaryotes do, those pressures play a smaller role in shaping fungal communities than in shaping prokaryotic communities.

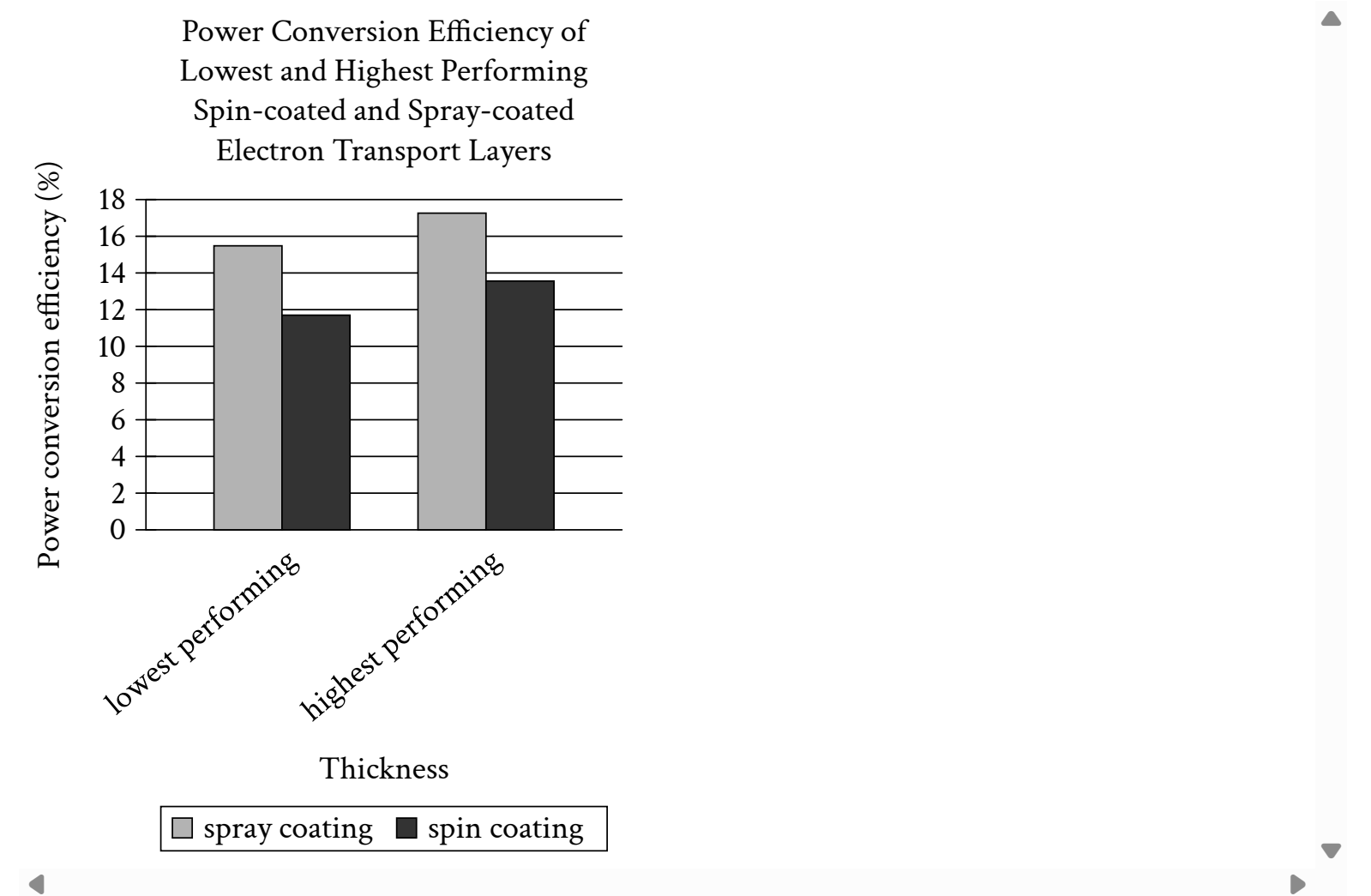
Choice A is incorrect. Although this comparison is supported by the graph, which shows that homogenizing dispersal's contribution to fungal community assembly was just over 10 percent while variable selection's contribution was just under 40 percent, this comparison doesn't illustrate the hypothesis because it involves two factors affecting fungal community assembly. The researchers' hypothesis specifically concerns a difference between fungi and prokaryotes (namely, fungi's greater tolerance of environmental pressures), so a comparison that is limited to fungal community assembly doesn't represent a finding that aligns with this hypothesis. Choice B is incorrect because it mischaracterizes the information in the graph. The graph indicates that the total number of factors that contributed to community assembly was greater for fungi than for prokaryotes: all five factors made nonzero contributions to fungal community assembly, while two factors—homogeneous selection and dispersal limitation—appear not to have contributed to prokaryotic community assembly. In addition, the overall number of factors that influence community assembly isn't directly relevant to the researchers' hypothesis, which addresses the effects of higher tolerance of environmental pressures among fungi in comparison to prokaryotes. Choice D is incorrect. Although the graph indicates that homogeneous selection contributed only minimally to fungal community assembly and appears not to have contributed at all to prokaryotic community assembly, this isn't a finding that the researchers' hypothesis would account for. The hypothesis concerns a difference between fungi and prokaryotes that is plausibly attributable to fungi's greater tolerance of environmental pressures, which include homogeneous and variable selection. The finding that one type of environmental pressure contributed negligibly to both groups doesn't differentiate fungi from prokaryotes and therefore doesn't illustrate what the hypothesis is meant to explain.

Question Difficulty: Hard

Question ID aa9e22a0

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: aa9e22a0



Perovskite solar cells convert light into electricity more efficiently than earlier kinds of solar cells, and manufacturing advances have recently made them commercially attractive. One limitation of the cells, however, has to do with their electron transport layer (ETL), through which absorbed electrons must pass. Often the ETL is applied through a process called spin coating, but such ETLs are fairly inefficient at converting input power to output power. André Taylor and colleagues tested a novel spray coating method for applying the ETL. The team produced ETLs of various thicknesses and concluded that spray coating holds promise for improving the power conversion efficiency of ETLs in perovskite solar cells.

- Which choice best describes data from the graph that support Taylor and colleagues' conclusion?
- A. Both the ETL applied through spin coating and the ETL applied through spray coating showed a power conversion efficiency greater than 10% at their lowest performing thickness.
  - B. The lowest performing ETL applied through spray coating had a higher power conversion efficiency than the highest performing ETL applied through spin coating.

- C. The highest performing ETL applied through spray coating showed a power conversion efficiency of approximately 13%, while the highest performing ETL applied through spin coating showed a power conversion efficiency of approximately 11%.
- D. There was a substantial difference in power conversion efficiency between the lowest and highest performing ETLs applied through spray coating.

**ID: aa9e22a0 Answer**

Correct Answer: B

#### Rationale

Choice B is the best answer because it describes data from the graph that support Taylor and colleagues' conclusion that spray coating holds promise for improving the power conversion efficiency of ETLs in perovskite solar cells. The text explains that perovskite solar cells' efficiency at converting light into electricity is diminished by their electron transport layer (ETL), which is applied through spin coating, but that Taylor's team devised a new spray coating method for applying the ETL that improves its power conversion efficiency. The graph displays data on the power conversion efficiency of solar cells in tests conducted by Taylor's team, with bars for both the highest- and lowest-performing ETLs in two data categories: spray coating and spin coating. According to the graph, the lowest-performing ETL applied through spray coating had a power conversion efficiency of between 14% and 16%, while the highest-performing ETL applied through spin coating had a power conversion efficiency of less than 14%. These data confirm that ETLs applied through novel spray coating are more efficient than those applied through traditional spin coating. Thus, the data support Taylor and colleagues' conclusion about spray coating's potential value.

Choice A is incorrect. Although this claim correctly describes the data in the graph by stating that both the lowest-performing ETL applied through spin coating and the lowest-performing ETL applied through spray coating had a power conversion efficiency greater than 10%, this relationship in the data doesn't support or relate to Taylor and colleagues' conclusion that spray coating promises greater efficiency for solar cells than traditional spin coating does. Choice C is incorrect. This claim does address the greater power conversion efficiency of the highest-performing ETL applied through spray coating, compared with the highest-performing ETL applied through spin coating. However, it also incorrectly cites the value for the efficiency of the highest-performing ETL applied through spray coating as approximately 13%, instead of a value between 14% and 16%, and the value for the efficiency of the highest-performing ETL applied through spin coating as approximately 11%, instead of a value between 12% and 14%, as shown in the graph. Choice D is incorrect because Taylor and colleagues' conclusion is based on the difference in the power conversion efficiency of ETLs applied through spray coating and that of ETLs applied through spin coating, not on the difference between the highest- and lowest-performing ETLs applied through just spray coating.

Question Difficulty: Hard

Question ID 5267df34

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 5267df34

The ancient Greek concept of “mimesis,” a term used in the works of Plato, Aristotle, and other Greek philosophers in discussions of representational art—visual, performance, or literary art that aims to depict the real world—is a foundational concept of the Western philosophy of aesthetics. Mimesis is typically translated as “imitation” in modern editions of ancient Greek texts, but scholar Stephen Halliwell warns that this is overly reductive: “imitation” implies that art merely copies—and is thus by definition entirely derivative of—a reality that exists outside and prior to the work of art, and translating “mimesis” thusly obscures the multifaceted ways in which the ancient Greeks understood the relationship between art and reality.

Which statement, if true, would most directly support the claim by Halliwell presented in the text?

- A. One of the earliest appearances of mimesis’s root word, *mimos*, can be found in an ancient Greek tragedy in reference to dramatic impersonation, and the *mim-* root came to be generally associated with the musical and poetic arts by the fifth century BCE.
- B. Both Plato’s and Aristotle’s theorizations of mimesis examine the psychological effects that works of art induce in the viewer or listener.
- C. Although several of Plato’s earliest philosophical works discuss aesthetic ideas, the term “mimesis” doesn’t appear in Plato’s discussions of art until *Cratylus*, a relatively late work.
- D. Although Plato’s writings typically characterize representational art as an inferior reflection of the physical world, Aristotle suggests that mimesis can refer to art’s capacity to envision hypothetical conditions that could, but don’t yet, exist.

ID: 5267df34 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a statement that would support Halliwell’s claim that “imitation” is an overly simplified translation of the word “mimesis” in the context of ancient Greek philosophical discussions of representational art and that, because it suggests a view of art as merely copying things that exist in reality, the translation obscures the fact that Plato, Aristotle, and other ancient Greeks understood the relationship between art and reality in varied ways. If Plato’s works tend to treat representational art as an inferior or inadequate reflection of the physical world (consistent with the idea of mere imitation), while Aristotle’s works suggest that the term “mimesis” can refer to art’s ability to show conditions that don’t currently exist but could exist (going beyond imitation into novel creation), that evidence would support the claim that the term “mimesis” means more than just “imitation” and that ancient Greek philosophers held different views of the relationship between art and reality.

Choice A is incorrect because information about the root word *mimos* first being used in drama and the root *mim-* coming to be associated with music and poetry wouldn’t indicate anything about the meaning of the specific term “mimesis” as it was used by ancient Greek philosophers in discussions of representational art; thus, the information would have no bearing on Halliwell’s claim that a common translation of the specific term is an oversimplification. Choice B is incorrect because the issue of art’s psychological effects on audiences gets at how people respond to works of art instead of how art itself is related to reality, so the

idea that Plato and Aristotle both addressed such effects in their considerations of mimesis wouldn't have any bearing on Halliwell's claim that a common translation of that term oversimplifies the relationship between art and reality. Further, this idea would touch on one general similarity in approaches to mimesis instead of illustrating the multifaceted, or varied, ways Halliwell claims ancient Greek philosophers understood art's relation to reality. Choice C is incorrect because the idea that Plato discussed aesthetics in his early works but didn't use the term "mimesis" until later doesn't give any indication of how Plato or any other ancient Greek philosophers understood the relation between art and reality, so it would have no bearing on Halliwell's claim that a common translation of the term "mimesis" is oversimplified and fails to reflect the varied ways the philosophers understood that relationship.

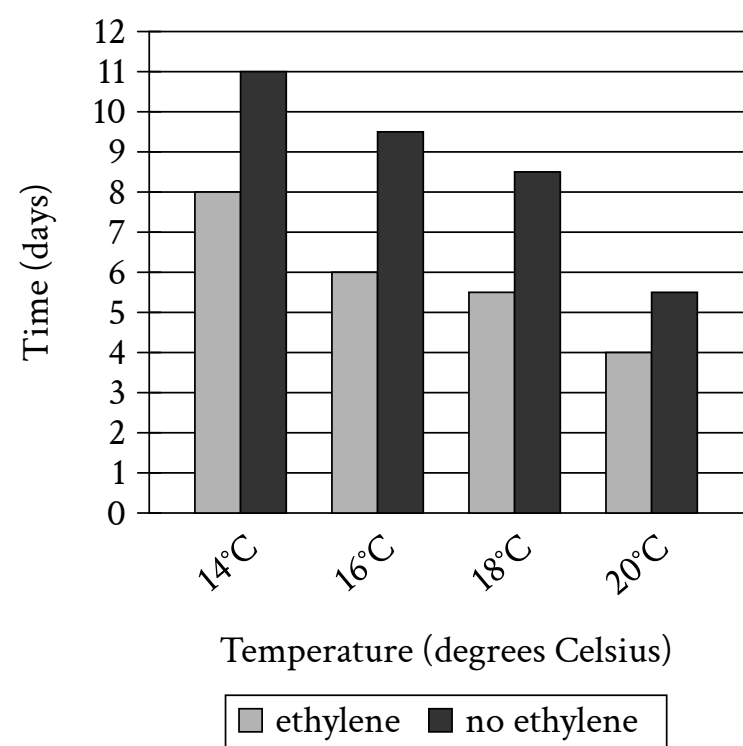
Question Difficulty: Hard

Question ID 212d10e8

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
|----------------------|---------------------|-----------------------|---------------------|-------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: 212d10e8

Banana Ripening Time at Different Temperatures with and without Ethylene Treatment



A student is conducting an experiment to test the effect of temperature and ethylene treatment on the ripening speed of bananas. The student treated some bananas with ethylene while leaving others untreated, then allowed both types of bananas to ripen at one of four different temperatures. Comparing the data for bananas with and without ethylene, the student concluded that \_\_\_\_\_

Which choice most effectively uses data from the graph to complete the student’s conclusion?

- A. 20°C is the ideal temperature at which to store bananas to slow ripening time.
- B. for those bananas that were not treated with ethylene, differences in temperature were not associated with absolute differences in ripening time.
- C. bananas treated with ethylene ripen faster at 14°C and 16°C than at 18°C and 20°C.
- D. ethylene was associated with a greater absolute change in ripening time at 14°C, 16°C, and 18°C than at 20°C.

ID: 212d10e8 Answer

Correct Answer: D

## Rationale

Choice D is the best answer because it most effectively uses data from the graph to complete the student's conclusion about banana ripening time with and without ethylene at different temperatures. The graph shows that at 20°C, the gap between the two bars showing ripening times for ethylene-treated bananas and untreated bananas crosses fewer than 2 gridlines (from about 4 days for ethylene-treated bananas to about 5.5 days for untreated bananas). Meanwhile, the graph shows that at 14°C, 16°C, and 18°C, the gap between the bars crosses more than 2 gridlines (from about 8 days for treated bananas to about 11 days for untreated bananas at 14°C; from about 6 days for treated bananas to about 9.5 days for untreated bananas at 16°C; and from about 5.5 days for treated bananas to about 8.5 days for untreated bananas at 18°C). Since the gap between the bars at each of these temperatures crosses more than 2 gridlines, and since each of these gaps is larger than the gap between the bars at 20°C, it can be concluded that ethylene was associated with a greater absolute change in ripening time at 14°C, 16°C, and 18°C than at 20°C.

Choice A is incorrect because the graph shows that ethylene-treated bananas stored at 20°C ripen more quickly than ethylene-treated bananas stored at the other temperatures do (about 4 days at 20°C vs. about 5.5, 6, and 8 days at 18°C, 16°C, and 14°C, respectively) and that untreated bananas stored at 20°C ripen more quickly than untreated bananas stored at the other temperatures do (about 5.5 days at 20°C vs. about 8.5, 9.5, and 11 days at 18°C, 16°C, and 14°C, respectively). The information in the graph therefore indicates that storing bananas at 20°C speeds up ripening time relative to storing bananas at the other temperatures shown, not that this storage temperature slows ripening time. Choice B is incorrect because the graph shows that as temperature increases, the ripening time of untreated bananas decreases, from about 11 days at 14°C to about 5.5 days at 20°C, with no exceptions to this trend. The graph therefore shows that differences in temperature were associated with absolute differences in ripening time, not that there was no association between differences in temperature and differences in ripening time. Choice C is incorrect because the graph shows that ripening times of ethylene-treated bananas at 14°C and 16°C were about 8 and 6 days, respectively, which is greater than, not less than, ripening times of ethylene-treated bananas at 18°C and 20°C, which were about 5.5 and 4 days, respectively. In other words, bananas treated with ethylene ripen more slowly, not faster, at 14°C and 16°C than at 18°C and 20°C.

Question Difficulty: Hard

# Question ID a35a5695

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a35a5695

“Loon Point” is a 1912 poem by Amy Lowell. In the poem, which presents a nighttime scene on a body of water, Lowell describes an element of nature as an active participant in the experience, writing, \_\_\_\_\_

Which quotation from “Loon Point” most effectively illustrates the claim?

- A. “Through the water the moon writes her legends / In light, on the smooth, wet sand.”
- B. “Softly the water ripples / Against the canoe’s curving side.”
- C. “Or like the snow-white petals / Which drop from an overblown rose.”
- D. “But the moon in her wayward beauty / Is ever and always the same.”

ID: a35a5695 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively illustrates the claim that Lowell describes an element of nature as an active participant in the experience of a nighttime scene on a body of water. The quotation presents the image of the moon shining on a body of water. However, instead of describing the moon in passive terms or simply stating that it reflects through the water and onto the sandy shore, the quotation portrays the moon as being engaged in the humanlike action of writing a legend. In other words, the moon is participating actively in the nighttime scene.

Choice B is incorrect. Although the quotation describes a nighttime scene on a body of water, the element of nature in these lines—the waves—isn’t portrayed as an active participant in an experience; instead, the waves merely ripple softly against a canoe, as waves would normally do. Choice C is incorrect because the quotation doesn’t present a nighttime scene on a body of water; instead, it describes petals falling from a rose. Choice D is incorrect. Although the quotation presents an image of an element of nature—the moon—it doesn’t mention a body of water; moreover, it portrays the moon not as an active participant in a scene but instead as static or unchanging (“ever and always the same”).

Question Difficulty: Hard

# Question ID 7440cac4

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7440cac4

*The Souls of Black Folk* is a 1903 book by W.E.B. Du Bois. In the book, Du Bois suggests that upon hearing Black folk songs, he felt an intuitive and sometimes unexpected sense of cultural recognition: \_\_\_\_\_

Which quotation from *The Souls of Black Folk* most effectively illustrates the claim?

- A. “[Black folk music] still remains as the singular spiritual heritage of the nation and the greatest gift of the Negro people.”
- B. “Ever since I was a child these songs have stirred me strangely. They came out of the South unknown to me, one by one, and yet at once I knew them as of me and of mine.”
- C. “Caricature has sought again to spoil the quaint beauty of the music, and has filled the air with many debased melodies which vulgar ears scarce know from the real. But the true Negro folk-song still lives in the hearts of those who have heard them truly sung and in the hearts of the Negro people.”
- D. “The songs are indeed the siftings of centuries; the music is far more ancient than the words, and in it we can trace here and there signs of development.”

ID: 7440cac4 Answer

Correct Answer: B

Rationale

Choice B is the best answer because the quotation from *The Souls of Black Folk* illustrates the claim that Du Bois felt a sense of cultural recognition when he heard Black folk songs. In the quotation, Du Bois explains that for his entire life, Black folk songs “stirred [him] strangely.” Even though they originated in the South, a region he wasn’t familiar with, he knew the songs “as of me and of mine.” That is, he identified strongly with them and associated them with his community. Therefore, Du Bois felt an intuitive sense of cultural recognition when he heard Black folk songs.

Choice A is incorrect. Although the quotation considers the cultural and spiritual value of Black folk music, it doesn’t establish that this music inspired in Du Bois a sense of cultural recognition. Choice C is incorrect because this quotation addresses the cultural survival of Black folk songs despite attempts to caricature, or parody, them, not Du Bois’s sense of cultural connection to them. Choice D is incorrect because the quotation indicates that the Black folk songs and music are old, “the siftings of centuries,” instead of addressing how Du Bois felt when he heard the songs.

Question Difficulty: Hard

# Question ID 80581d48

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 80581d48

Art collectives, like the United States- and Vietnam-based collective The Propeller Group or Cuba’s Los Carpinteros, are groups of artists who agree to work together: perhaps for stylistic reasons, or to advance certain shared political ideals, or to help mitigate the costs of supplies and studio space. Regardless of the reasons, art collectives usually involve some collaboration among the artists. Based on a recent series of interviews with various art collectives, an arts journalist claims that this can be difficult for artists who are often used to having sole control over their work.

Which quotation from the interviews best illustrates the journalist’s claim?

- A. “The first collective I joined included many amazingly talented artists, and we enjoyed each other’s company, but because we had a hard time sharing credit and responsibility for our work, the collective didn’t last.”
- B. “We work together, but that doesn’t mean that individual projects are equally the work of all of us. Many of our projects are primarily the responsibility of whoever originally proposed the work to the group.”
- C. “Having worked as a member of a collective for several years, it’s sometimes hard to recall what it was like to work alone without the collective’s support. But that support encourages my individual expression rather than limits it.”
- D. “Sometimes an artist from outside the collective will choose to collaborate with us on a project, but all of those projects fit within the larger themes of the work the collective does on its own.”

ID: 80581d48 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents the quotation that best illustrates the journalist’s claim. By indicating that a collective didn’t continue because it was hard to share credit and responsibilities within the group even though the company was enjoyable, the quotation shows that working collaboratively can be difficult for artists who are used to having complete control over their work.

Choice B is incorrect because the quotation indicates that members of a collective are able to collaborate together and have agreed on a fair way to manage their responsibilities; this doesn’t demonstrate the challenge of sharing control among members of a collective. Choice C is incorrect because the quotation highlights the support and encouragement of individual expression an artist experiences due to working in a collective; these positive aspects don’t demonstrate the challenge of sharing control among members of a collective. Choice D is incorrect because the quotation doesn’t address any challenges of sharing control among members of a collective; it simply indicates that artists sometimes choose to work with collectives without having to be a member. Therefore, the quotation doesn’t illustrate the journalist’s claim.

Question Difficulty: Hard

# Question ID 9552f7b9

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 9552f7b9

Jean-Bernard Caron and colleagues recently discovered a cache of jellyfish fossils in the Burgess Shale, a site in the Canadian Rockies that is rich in fossils from the Cambrian period (over 500 million years ago). Caron and colleagues claim that these are the oldest jellyfish fossils ever discovered. In the past twenty years, two sites in China and the United States have yielded fossils of a similar age that some experts believe are most likely jellyfish due to their shapes and the appearance of projecting tentacles. But Caron and colleagues argue that the apparent tentacles are in fact the comb rows of ctenophores, gelatinous animals that are only distantly related to jellyfish.

Which statement, if true, would most directly weaken the claim by Caron and colleagues about the fossils found in China and the United States?

- A. Sites in the Canadian Rockies from later periods than the Cambrian period have yielded fossils that have been conclusively identified as ctenophore fossils.
- B. The fossils found in China and the United States are so poorly preserved that though they cannot be conclusively identified as jellyfish, they cannot be conclusively identified as ctenophores either.
- C. While ctenophore fossils have been discovered in China and the United States, they have never been discovered in the Burgess Shale.
- D. The fossils discovered by Caron and colleagues in the Burgess Shale were better preserved than the fossils discovered by other researchers in China and the United States.

ID: 9552f7b9 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a statement that, if true, would most directly weaken Caron and colleagues' claim that the apparent tentacles in the Chinese and American fossils are actually ctenophore comb rows. If the fossils are so poorly preserved that they cannot be conclusively identified as either organism, neither the claim that they are jellyfish nor, as Caron claims, that they are ctenophores would be supported.

Choice A is incorrect. Caron's claim is that fossils from the US and China are ctenophores, not jellyfish. These fossils are said to be "of a similar age" to the Cambrian fossils found in the Canadian Rockies. And nothing in the text or this choice suggests that the presence or absence of ctenophores after the Cambrian would have any bearing on whether the Cambrian fossils from the US and China are ctenophores. Choice C is incorrect. Caron's claim is that fossils from the US and China are ctenophores, not jellyfish. Nothing in the text suggests that the presence or absence of ctenophores in the Burgess Shale (in Canada) would affect whether the fossils found in the US and China are ctenophores. Choice D is incorrect. Caron's claim is that fossils from the US and China are ctenophores, not jellyfish. Although fossil quality is a plausible issue for the research described in the text, nothing in the text or this choice suggests that the fossils from US and China would have been too poorly preserved for proper identification.

Question Difficulty: Hard

Question ID ee0acb4b

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: ee0acb4b

Archaeologist Petra Vaiglova, anthropologist Xinyi Liu, and their colleagues investigated the domestication of farm animals in China during the Bronze Age (approximately 2000 to 1000 BCE). By analyzing the chemical composition of the bones of sheep, goats, and cattle from this era, the team determined that wild plants made up the bulk of sheep’s and goats’ diets, while the cattle’s diet consisted largely of millet, a crop cultivated by humans. The team concluded that cattle were likely raised closer to human settlements, whereas sheep and goats were allowed to roam farther away.

Which finding, if true, would most strongly support the team’s conclusion?

- A. Analysis of the animal bones showed that the cattle’s diet also consisted of wheat, which humans widely cultivated in China during the Bronze Age.
- B. Further investigation of sheep and goat bones revealed that their diets consisted of small portions of millet as well.
- C. Cattle’s diets generally require larger amounts of food and a greater variety of nutrients than do sheep’s and goats’ diets.
- D. The diets of sheep, goats, and cattle were found to vary based on what the farmers in each Bronze Age settlement could grow.

ID: ee0acb4b Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a finding that, if true, would most strongly support the team’s conclusion that cattle were likely raised closer to human settlements than sheep and goats were. The text explains that Vaiglova, Liu, and their colleagues analyzed the chemical composition of sheep, goat, and cattle bones from the Bronze Age in China in order to investigate the animals’ domestication, or their adaptation from a wild state to a state in which they existed in close connection with humans. According to the text, the team’s analysis showed that sheep and goats of the era fed largely on wild plants, whereas cattle fed on millet—importantly, a crop cultivated by humans. If analysis of the animal bones shows that the cattle’s diet also consisted of wheat, another crop cultivated by humans in China during the Bronze Age, the finding would support the team’s conclusion by offering additional evidence that cattle during this era fed on human-grown crops—and, by extension, that humans raised cattle relatively close to the settlements where they grew these crops, leaving goats and sheep to roam farther away in areas with wild vegetation, uncultivated by humans.

Choice B is incorrect because if it were true that sheep’s and goats’ diets consisted of small portions of millet, which the text states was a crop cultivated by humans, the finding would suggest that sheep and goats were raised relatively close to human settlements, weakening the team’s conclusion that cattle were likely raised closer to those settlements than sheep and goats were. Choice C is incorrect because the finding that cattle generally require more food and nutrients than do sheep and goats wouldn’t support the team’s conclusion that cattle were likely raised closer to human settlements than sheep and goats were. Nothing in the text suggests that cattle were incapable of obtaining sufficient food and nutrients without access to human-grown crops. Hence, even if cattle’s diets are found to have different requirements than the diets of sheep and goats, the cattle could have met those requirements from food located far from human settlements. Choice D is incorrect because if it were true that the

diets of sheep, goats, and cattle varied based on what the farmers in each Bronze Age settlement could grow, the finding would weaken the team's conclusion that cattle were likely raised closer to human settlements than sheep and goats were, suggesting instead that all three types of animals were raised close enough to human settlements to feed on those settlements' crops.

Question Difficulty: Hard

# Question ID 3f38da95

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 3f38da95

In the “language nest” model of education, Indigenous children learn the language of their people by using it as the medium of instruction and socialization at pre-K or elementary levels. In their 2016 study of a school in an Anishinaabe community in Ontario, Canada, scholars Lindsay Morcom and Stephanie Roy (who are Anishinaabe themselves) found that the model not only imparted fluency in the Anishinaabe language but also enhanced students’ pride in Anishinaabe culture overall. Given these positive effects, Morcom and Roy predict that the model increases the probability that as adults, former students of the school will transmit the language to younger generations in their community.

Which finding, if true, would most strongly support the researchers’ prediction?

- A. Anishinaabe adults who didn’t attend the school feel roughly the same degree of cultural pride as the former students of the school feel.
- B. After transferring to the school, new students experience an increase in both fluency and academic performance overall.
- C. As adults, former students of the school are just as likely to continue living in their community as individuals who didn’t attend the school.
- D. As they complete secondary and higher education, former students of the school experience no loss of fluency or cultural pride.

ID: 3f38da95 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would support the researchers’ prediction about the language nest model of education. The text states that Morcom and Roy studied the effects of the language nest model of education on students at an Anishinaabe school, and they found that the model—which is used with students during pre-K or elementary school—increased students’ fluency in the Anishinaabe language and pride in Anishinaabe culture. The researchers predicted that the students’ positive early experiences with the Anishinaabe language would lead them to be more likely to later share the language with younger generations. If former students maintain full fluency and cultural pride after finishing secondary and higher education, it follows that they would be both able and motivated to share what they know with others; this would likely result in a higher probability of transmitting the language to younger generations, as the researchers predict.

Choice A is incorrect because finding that Anishinaabe adults who didn’t attend the school feel approximately the same degree of cultural pride as those adults who did attend wouldn’t support the researchers’ prediction that former students will be more likely to share their knowledge with younger generations. This finding would identify a similarity between the groups rather than a factor that might make former students more likely than other adults to transmit the language to younger people. Choice B is incorrect because finding that new students experience increased performance in language fluency and academics would suggest that the school has a positive effect on students when they attended but wouldn’t reveal anything about those students’ later actions as adults (such as their likelihood of sharing their knowledge with younger generations). Choice C is incorrect because finding that

Anishinaabe adults who attended the school are equally likely to stay in the community as adults who didn't attend the school wouldn't support the researchers' prediction that former students will be more likely to share their knowledge with younger generations. This finding would identify a similarity between the groups rather than a factor that might make former students more likely than other adults to transmit the language to younger people.

Question Difficulty: Hard

# Question ID 4e5e24ad

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 4e5e24ad

The interiors of many temples in the ancient Middle East needed to satisfy a precise set of acoustic demands: the sounds of chants and hymns should travel with clarity, while profound silences should be fully felt and appreciated. In a research paper, a student claims that the users of one such temple were aware of how the materials that were used within the structure could affect sound quality and that they deliberately applied this knowledge to influence how sound was experienced in the space.

Which quotation from a work by a historian would most directly support the student’s claim?

- A. “Many researchers believe that the central chamber of the temple had a high ceiling, a feature that has since become essential to the acoustic design of modern concert halls.”
- B. “The innermost room of the temple was likely among the quietest spaces in the interior of the temple.”
- C. “The acoustic environment of the temple was best suited for music that eschewed ornamentation in favor of simple melodies, harmonies, and rhythms.”
- D. “During special occasions, curtains were placed inside the temple to minimize reverberation and confine the sound to designated locations.”

ID: 4e5e24ad Answer

Correct Answer: D

Rationale

Choice D is the best answer because it provides a quotation that would most directly support the student’s claim that the temple’s users were aware of how materials used in the temple affected sound and deliberately applied that knowledge to shape the sonic experience of people in the space. The quotation indicates that curtains would, at times, be installed specifically “to minimize reverberation and confine the sound,” thereby illustrating that the users of the temple had knowledge of the acoustic properties of materials within the temple (how curtains dampen sound) and employed this knowledge to affect the experience of sound within the space.

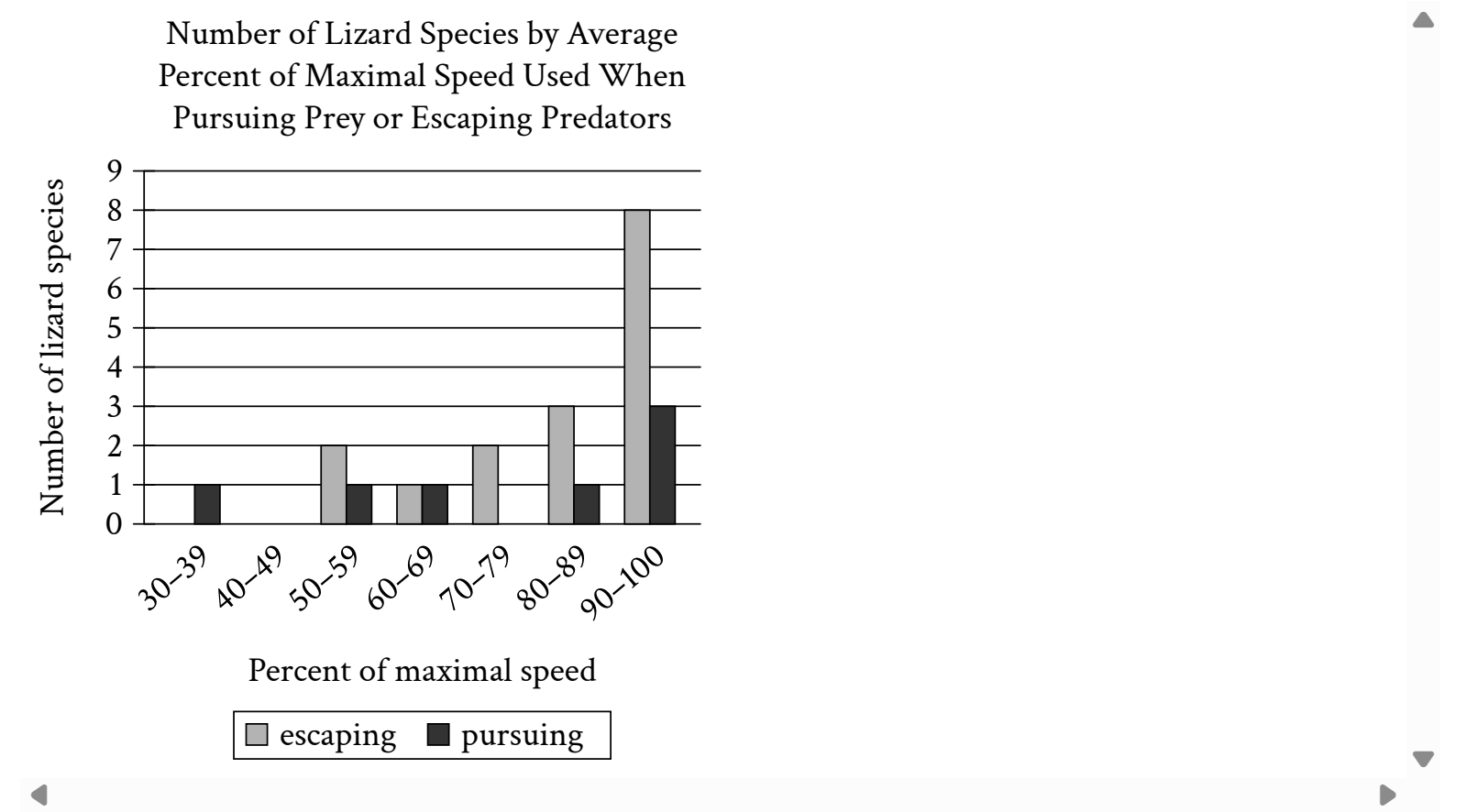
Choice A is incorrect. Although the quotation describes a feature of the temple’s structure (the high ceiling), it makes no mention of the materials used, the materials’ acoustic properties, or temple users’ awareness of how materials impact sound quality. Choice B is incorrect because it doesn’t address any materials that were used in the temple, let alone their acoustic properties or temple users’ awareness of how materials impact sound quality. Choice C is incorrect because it doesn’t address any materials that were used in the temple, let alone their acoustic properties or temple users’ awareness of how materials impact sound quality.

Question Difficulty: Hard

Question ID a054c156

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a054c156



It may seem that the optimal strategy for an animal pursuing prey or escaping predators is to move at maximal speed, but the energy expense of exploiting full speed capacity can disfavor such a strategy even in escape contexts, as evidenced by the fact that \_\_\_\_\_

- Which choice most effectively uses data from the graph to complete the text?
- A. most lizard species use about the same percentage of their maximal speed when escaping predation as they do when pursuing prey.
  - B. multiple lizard species move at an average of less than 90% of their maximal speed while escaping predation.
  - C. more lizard species use, on average, 90%–100% of their maximal speed while escaping predation than use any other percentage of their maximal speed.
  - D. at least 4 lizard species use, on average, less than 100% of their maximal speed while pursuing prey.

ID: a054c156 Answer

Correct Answer: B

## Rationale

Choice B is the best answer because it describes data from the graph that complete the text's discussion of lizard species' use of maximal speed when escaping predators. According to the text, moving at maximal speed (the highest speed possible) requires so much energy that it is not always an effective strategy for animals, even when they are escaping predators. The graph displays data on the average percent of maximal speed used by lizard species while either escaping predators or pursuing prey. The graph categorizes the data for both pursuing and escaping by the number of species using 30%–39% of maximal speed, 40%–49% of maximal speed, 50%–59% of maximal speed, 60%–69% of maximal speed, 70%–79% of maximal speed, 80%–89% of maximal speed, and 90%–100% of maximal speed, respectively. In the graph, there is at least one species in each of the following percent categories for maximal speed while escaping predators: 50%–59%, 60%–69%, 70%–79%, and 80%–89%. Thus, the data in the graph show that multiple lizard species move at an average of less than 90% of their maximal speed while escaping predation.

Choice A is incorrect because the data in the graph isn't organized in such a way that a comparison of the percentage of maximal speed used when escaping predation with the percentage used when pursuing prey is possible at the level of individual species.

Choice C is incorrect. It is true that in the graph, the percent category with the largest number of species using maximal speed while escaping predators is 90%–100% (8 species total). However, these data don't complete the text, which is concerned instead with how animals are discouraged from using maximal speed even when escaping predators because of the amount of energy required to use it. Choice D is incorrect because these data from the graph pertain to maximal speed while pursuing prey and therefore don't complete the text's discussion of lizard species' use of maximal speed when escaping predators.

Question Difficulty: Hard

# Question ID 04c2027b

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 04c2027b

As a monthly newsletter formed in 1969 by a group of Asian American students at the University of California, Los Angeles, *Gidra* helped raise awareness about social and political issues concerning the Asian American community on campus and at large. The newsletter had an expansive reach for a publication of its kind: around 4,000 copies were published each month. A student writing a history paper, however, hypothesizes that *Gidra*’s influence cannot be measured by the number of newsletters published monthly alone.

Which finding, if true, would most directly support the student’s hypothesis?

- A. The students who initially formed *Gidra* each contributed financially to its creation.
- B. In addition to covering current events, *Gidra* also featured works of art and literature.
- C. *Gidra* was initially based out of the Asian American Studies Center at UCLA.
- D. People would often give their copies of *Gidra* to others once they had finished reading an issue.

ID: 04c2027b Answer

Correct Answer: D

Rationale

Choice D is the best answer. If there were more *Gidra* readers than there were copies of the newsletter, then the newsletter’s influence would be much greater than its 4,000 monthly copies.

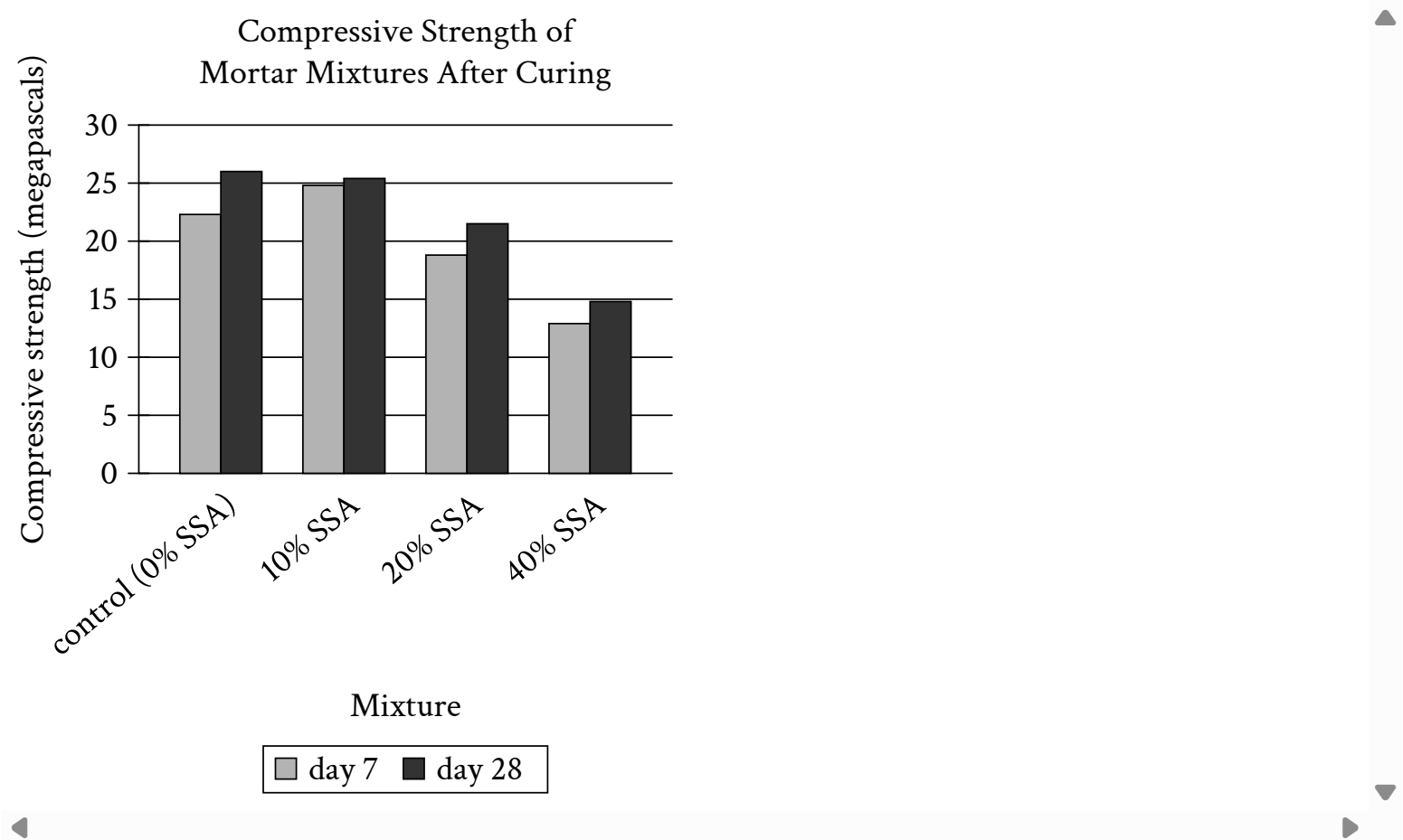
Choice A is incorrect. Information about the newsletter’s initial funding doesn’t tell us about the influence that the newsletter eventually had. Choice B is incorrect. While the content of *Gidra* was undoubtedly related to the newsletter’s influence, this information isn’t relevant to the specific hypothesis about monthly circulation numbers. Choice C is incorrect. Where the publishers of *Gidra* were initially based doesn’t tell us about the newsletter’s overall influence.

Question Difficulty: Hard

Question ID e8dff6a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e8dff6a



Mollusk shells are mainly composed of calcium carbonate, a chemical compound used in mortar and other construction materials. A research team led by Ariane da Silva Cardoso investigated pulverizing discarded Sururu mussel shells to create a substitute for fine aggregates (such as sand) in mortar mixtures. The team prepared mixtures with Sururu shell aggregate (SSA) replacing varying percentages of sand and then tested the mortars' compressive strength on days 7 and 28 of curing. Based on their findings, the team recommended SSA substitution in relatively small proportions to avoid compromising strength.

- Which choice most effectively uses data from the graph to support the researchers' recommendation?
- A. The 10% SSA mixture's compressive strength was greater than or approximately equal to that of the control mixture on day 7 and on day 28, but on both days the 20% and 40% SSA mixtures had less compressive strength than the control mixture did.
  - B. The compressive strength of the 10% SSA mixture remained nearly the same from day 7 to day 28, while that of the 20% and 40% SSA mixtures changed substantially.
  - C. The 10% SSA mixture's compressive strength was greater than that of the control mixture on day 7, but by day 28 the 10% SSA mixture's compressive strength had decreased while that of the control mixture had increased.

D. The compressive strength of the 10% SSA mixture never surpassed the compressive strength measured for the control mixture on day 28.

**ID: e8dff6a Answer**

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the graph to support the researchers' recommendation that Sururu shell aggregate (SSA) substitution be done in relatively small proportions to avoid compromising the compressive strength of mortar mixtures. The text explains that a research team investigated whether SSA can serve as a substitute for sand in mortar mixtures. The graph presents the compressive strength (in megapascals) of mortar mixtures with SSA replacing 0% (control), 10%, 20%, and 40% of the sand on day 7 and day 28 of curing. The graph shows that the compressive strength of the 10% SSA mixture was approximately 25 megapascals on day 7, which is greater than the control mixture's approximately 22 megapascals on the same day. The graph also shows that the 10% SSA mixture's compressive strength was slightly more than 25 megapascals on day 28, which is only slightly less than the control's compressive strength on the same day (about 26 megapascals). Therefore, the graph shows that the compressive strength of the 10% SSA mixture was greater than that of the control on day 7 and roughly equal to that of the control on day 28, suggesting that substituting only 10% of the sand with SSA avoids compromising the mortar's compressive strength. The graph also shows that on day 7, the 20% and 40% SSA mixtures had compressive strengths of about 19 and 13 megapascals, respectively (both lower than the control's), and on day 28, they had compressive strengths of about 22 and 15 megapascals, respectively (once again lower than the control's). Thus, the data support the recommendation by indicating that substituting relatively small proportions of sand with SSA in mortar mixtures doesn't compromise strength compared with the control, whereas substituting larger proportions does.

Choice B is incorrect because the comparison it makes isn't relevant to the researchers' recommendation. Although the graph does show that the bars representing the compressive strength of the 10% SSA mixture on day 7 and day 28 are roughly the same height (suggesting that the mixture's compressive strength changed by only a small amount), and although there are relatively large gaps between the bars showing the compressive strength of the 20% and 40% SSA mixtures on day 7 and day 28 (suggesting that their compressive strength changed over time by a greater amount), this comparison concerns only how each SSA mixture's strength changed over time and doesn't compare the SSA mixtures with the control mixture. Supporting the recommendation that SSA substitution be done in small proportions requires evidence that small substitutions don't compromise strength relative to the control while larger substitutions do. Choice C is incorrect because it doesn't accurately represent the data in the graph, nor is the comparison it makes relevant to the researchers' recommendation. While the graph does show that the compressive strength of the 10% SSA mixture was greater than that of the control on day 7 (about 25 megapascals vs. about 22 megapascals) and, moreover, that the compressive strength of the control increased from day 7 to day 28 (from about 22 megapascals to about 26 megapascals), the graph shows that the compressive strength of the 10% SSA mixture increased by a small amount (from about 25 megapascals to slightly more than 25 megapascals), not that it decreased. Moreover, the researchers recommended substituting relatively small proportions (compared with larger proportions) of the mixtures with SSA; comparing the compressive strength of the 10% SSA mixture with that of the control without also considering how the compressive strength of the 10% SSA mixture compared with that of the 20% and 40% SSA mixtures wouldn't support the recommendation. Choice D is incorrect. Though the graph indicates that the 10% SSA mixture's compressive strength on day 7 and day 28 (about 25 megapascals and slightly more than 25 megapascals, respectively) didn't surpass the control mixture's compressive strength on day 28 (about 26 megapascals), this observation doesn't support the recommendation. The recommendation concerns the trade-off between SSA proportion and compressive strength; supporting it requires not just evidence about how the 10% SSA mixture compared with the control but also evidence about how the mixtures with larger proportions of SSA (20% and 40%) compared with the 10% SSA mixture and the control.

Question Difficulty: Hard

# Question ID 1c6c2d41

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 1c6c2d41

In a series of experiments, Julio Sevilla and Claudia Townsend showed that manipulating the space between products in store displays can influence consumers’ views of those products. Participants in several of the experiments regarded the same products in the same (generic) retail settings as significantly more valuable when the product-to-space ratio was low than when it was high. But in one of the experiments, Sevilla and Townsend arranged the same jewelry with different levels of intervening space at an upscale retailer (Tiffany & Co.) and a relatively inexpensive retailer (Forever 21). The result of this experiment suggests that a store context associated with inexpensive products may moderate the effect Sevilla and Townsend observed in their other experiments.

Which finding from the experiment with Tiffany & Co. and Forever 21, if true, would most directly support the conclusion presented in the text?

- A. At Tiffany & Co., participants judged jewelry spaced far apart to be substantially more valuable than jewelry spaced close together, but at Forever 21, participants judged jewelry spaced far apart to be only slightly more valuable than jewelry spaced close together.
- B. At both Tiffany & Co. and Forever 21, participants judged jewelry spaced far apart to be less valuable than jewelry spaced close together, but the difference in perceived value was significantly greater at Tiffany & Co. than at Forever 21.
- C. Participants judged jewelry spaced far apart at Tiffany & Co. to be similar in value to jewelry spaced far apart at Forever 21, but participants judged jewelry spaced close together at Tiffany & Co. to be more valuable than jewelry spaced close together at Forever 21.
- D. When jewelry was spaced far apart, participants judged the jewelry at Tiffany & Co. to be more valuable than the jewelry at Forever 21, but when jewelry was spaced close together, participants judged the jewelry at Tiffany & Co. to be less valuable than the jewelry at Forever 21.

ID: 1c6c2d41 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a finding that, if true, would support the text’s conclusion about the results of the experiment with Tiffany & Co. and Forever 21. According to the text, Sevilla and Townsend found in several experiments that when products in a generic retail setting are displayed with a low product-to-space ratio (that is, with lots of space between them), consumers view those products as significantly more valuable than when the same products are displayed with a higher product-to-space ratio (less space between them). The text then states that the results of an experiment specifically using the contexts of an inexpensive store (Forever 21) and an upscale one (Tiffany & Co.) suggest that an inexpensive store context may moderate, or lessen, that effect. If Sevilla and Townsend found that participants in the experiment with Tiffany & Co. and Forever 21 judged the same jewelry items as substantially more valuable when there was lots of space between them than when there was little space between them in the upscale store (Tiffany & Co.) but judged the same jewelry items as only slightly more valuable when there was lots of space between them than when there was little space between them in the inexpensive store (Forever 21), that finding

would demonstrate that increased space between products was associated with less of an increase in those products' perceived value at the inexpensive store than at the upscale store. Thus, the finding would support the text's conclusion that a store context associated with inexpensive goods moderates the effect Sevilla and Townsend observed in their earlier experiments.

Choice B is incorrect because if Sevilla and Townsend found that at both upscale and inexpensive stores, participants judged jewelry spaced far apart to be less valuable than jewelry spaced close together, that would show the opposite of the effect the researchers observed in their earlier experiments, not show that an inexpensive store context merely moderates, or lessens, that effect. Choice C is incorrect because this finding wouldn't show that the effect Sevilla and Townsend observed in their initial experiments (that products spaced far apart were perceived as more valuable than the same products spaced close together) is present but lessened in inexpensive retail contexts, as the text suggests. The conclusion in the text rests on determining the difference in jewelry items' perceived value between two spacing conditions within each store and then comparing the difference for the inexpensive store (Forever 21) to the difference for the upscale store (Tiffany & Co.); a finding that compares perceptions of the jewelry items' value between the two stores but for only one type of spacing condition at a time wouldn't provide information about the degree of difference between spacing conditions within each type of store context. Choice D is incorrect because this finding wouldn't show that the effect Sevilla and Townsend observed in their initial experiments (that products spaced far apart were perceived as more valuable than the same products spaced close together) is present but lessened in inexpensive retail contexts, as the text suggests. The conclusion in the text rests on determining the difference in jewelry items' perceived value between two spacing conditions within each store and then comparing the difference for the inexpensive store (Forever 21) to the difference for the upscale store (Tiffany & Co.); a finding that compares perceptions of the relative value of jewelry items between the two stores and for only one type of spacing condition at a time wouldn't provide information about the degree of difference between spacing conditions within each type of store context.

Question Difficulty: Hard

Question ID a70e7f08

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a70e7f08

Biologist Valentina Gómez-Bahamón and her team have investigated two subspecies of the fork-tailed flycatcher bird that live in the same region in Colombia, but one subspecies migrates south for part of the year, and the other doesn't. The researchers found that, due to slight differences in feather shape, the feathers of migratory forked-tailed flycatcher males make a sound during flight that is higher pitched than that made by the feathers of nonmigratory males. The researchers hypothesize that fork-tailed flycatcher females are attracted to the specific sound made by the males of their own subspecies, and that over time the females' preference will drive further genetic and anatomical divergence between the subspecies.

Which finding, if true, would most directly support Gómez-Bahamón and her team's hypothesis?

- A. The feathers located on the wings of the migratory fork-tailed flycatchers have a narrower shape than those of the nonmigratory birds, which allows them to fly long distances.
- B. Over several generations, the sound made by the feathers of migratory male fork-tailed flycatchers grows progressively higher pitched relative to that made by the feathers of nonmigratory males.
- C. Fork-tailed flycatchers communicate different messages to each other depending on whether their feathers create high-pitched or low-pitched sounds.
- D. The breeding habits of the migratory and nonmigratory fork-tailed flycatchers remained generally the same over several generations.

ID: a70e7f08 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support Gómez-Bahamón and her team's hypothesis about fork-tailed flycatchers. The text indicates that although two subspecies of the birds live in the same region, the tail feathers of the migrating males make a higher-pitched sound than the tail feathers of the nonmigrating males do. Gómez-Bahamón and her team hypothesize that female fork-tailed flycatchers are attracted to the particular sound made by the tail feathers of males of their own subspecies, which will bring about additional "genetic and anatomical divergence" between the two subspecies. If it were found that the pitch generated by the tail feathers of migrating males is getting higher over successive generations, it would indicate that the shape of the migrating subspecies' tail feathers is diverging further from that of the nonmigrating subspecies. And if females continue to prefer the sounds of the males of their own subspecies, the females of the migrating subspecies will become acclimated to increasingly higher pitches over subsequent generations, causing further divergence between the subspecies. Thus, if it were found that migrating males' tail feathers were producing higher pitches over time, that would support the researchers' hypothesis.

Choice A is incorrect because the researchers' hypothesis is that female flycatchers prefer the sounds produced by the tail feathers of males of their own subspecies, which will lead to further divergence between the two subspecies. This finding is about the shape of wing feathers and how that affects long-distance flight, whereas the hypothesis is about the shape of tail feathers

and how that relates to female mate preference. Choice C is incorrect because the researchers' hypothesis is that female flycatchers prefer the sounds produced by the tail feathers of males of their own subspecies, which will lead to further divergence between the two subspecies. This finding focuses on how the tail feather sounds communicate different messages, which doesn't address differences between the subspecies or female preferences. Choice D is incorrect because the researchers' hypothesis is that female flycatchers prefer the sounds produced by the tail feathers of males of their own subspecies, which will lead to further divergence between the two subspecies. The finding that breeding habits haven't changed for either subspecies does not, by itself, suggest anything about female preferences or divergence between the two subspecies.

Question Difficulty: Hard

# Question ID de4dd845

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: de4dd845

In countries with right-hand traffic, drivers who want to make a left turn at a traffic intersection with stoplights have to wait for either a gap in oncoming traffic or a designated left-turn signal to turn green. At busy intersections, this often causes a backup of vehicles waiting to turn left or being prevented from proceeding by left-turning vehicles in front of them. Transportation researcher Vikash V. Gayah claims that in urban areas eliminating the option to turn left at busy intersections—both with and without dedicated left-turn signals—would improve traffic flow and, as a result, reduce overall travel times even if such a restriction would require drivers to sometimes travel a slightly longer distance.

Which finding, if true, would most directly support the researcher’s claim?

- A. In a town that installed left-turn signals at all busy intersections, seven out of ten survey respondents agreed with the statement “the streets in my community are easier to navigate by motor vehicle than before.”
- B. A traffic study of intersections in a large city shows that on average drivers wait longer to make a left turn at intersections without left-turn signals than at intersections with such signals.
- C. After a city eliminated left turns at busy intersections, a package-delivery company reports that its drivers have been able to reach more addresses in the city daily, on average, and therefore deliver more packages there annually.
- D. Statistics reveal that school buses in a city that eliminated left turns at most intersections took on average two minutes longer to complete their routes after the restriction took effect than they did before.

ID: de4dd845 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would most directly support Vikash V. Gayah’s claim that eliminating the option to turn left at busy intersections would improve traffic flow and reduce overall travel times. The text begins by describing a problem encountered by drivers in countries with right-hand traffic—namely that drivers wanting to make a left turn must wait for either gaps in oncoming traffic or for designated left-turn signals before proceeding. The resulting backup of vehicles causes increased traffic congestion at busy intersections that slows overall travel times. According to Gayah, eliminating left turns from busy intersections in urban areas would ease the congestion caused by vehicles waiting to turn left. If vehicles spend less time waiting at intersections for left turns, faster overall travel times would result even if some drivers would have to drive slightly longer distances to make the desired left turn. Drivers for package-delivery companies, who presumably spend most of the day driving to destinations across the city in which they are based, would likely provide a good indication of overall traffic patterns across the city. A finding that after a city had eliminated left turns at busy intersections, package-delivery companies were able to complete more daily deliveries on average—which implies faster travel times between package destinations—would therefore support the claim that overall travel times would decrease if left turns were eliminated at busy intersections.

Choice A is incorrect because a finding that a majority of survey respondents agreed with the statement that implementing left-turn signals at all busy intersections made navigating streets in their communities easier wouldn’t support the claim that

eliminating the option to turn left altogether at some busy intersections—both with and without dedicated left-turn signals—would improve the flow of traffic and overall traffic times. In fact, the text emphasizes that designated left-turn signals contribute to increased congestion because they require drivers to wait to turn left, which results in a backup of vehicles. Installing such signals at all busy intersections would thus potentially compound the problem of congestion, not improve it. Moreover, although making streets easier for drivers to navigate might indicate that left-turn signals are beneficial to drivers, it doesn't indicate that overall travel times would necessarily be reduced. Choice B is incorrect because a study concluding that drivers wait longer to make left turns at intersections without dedicated left-turn signals than at intersections with such signals wouldn't support the claim that eliminating the option to turn left altogether would reduce overall travel times. In fact, the finding would merely support the idea that installing left-turn signals would likely reduce the time drivers spend waiting at busy intersections that didn't previously have left-turn signals, not that overall travel times would be reduced. Choice D is incorrect because the finding that after a restriction eliminating left turns at most intersections took effect, school buses took longer to complete their routes than they did before the restriction was implemented would contradict rather than support the researcher's claim that eliminating left turns would reduce overall travel times.

Question Difficulty: Hard

Question ID e2c734d9

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e2c734d9

Percentages of New Year’s Resolution Makers Who Make Certain  
Kinds of Resolutions

| Type of resolution     | Age 18-29 | Age 30-49 | Age 50-64 | Age 65+ |
|------------------------|-----------|-----------|-----------|---------|
| Health and exercise    | 79        | 80        | 79        | 76      |
| Finances               | 68        | 63        | 56        | 47      |
| Personal relationships | 63        | 53        | 58        | 52      |
| Hobbies                | 65        | 53        | 51        | 45      |

A Pew Research Center survey conducted in January 2024 found that three out of ten US adults make at least one New Year’s resolution (a promise for the year ahead), while half of those who make a resolution make more than one. The survey asked participants what kinds of resolutions they made and separated them into several categories. The table presents percentages of people who make particular kinds of New Year’s resolutions among those who choose to make them, indexed by age bracket.

Which choice best presents a conclusion about the habits of New Year’s resolution makers that is best supported by information in the text and the table?

- A. Resolution makers between the ages of 50 and 64 are more likely to make resolutions related to personal relationships and less likely to make resolutions related to finances than resolution makers between the ages of 30 and 49 are.
- B. Resolution makers between the ages of 18 and 29 are more likely to make resolutions about health and exercise than resolution makers between the ages of 30 and 49 are.
- C. The majority of US adults who make resolutions related to health and exercise also make resolutions in multiple additional categories.
- D. Among all US adults, people become less likely to make New Year’s resolutions as they age, regardless of the type of resolution.

ID: e2c734d9 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a conclusion about the habits of New Year’s resolution makers that is best supported by information in the text and the table. The table presents percentages of resolution makers who make particular kinds of resolutions, indexed by age bracket. According to the table, 58 percent of resolution makers ages 50 to 64 made resolutions related to personal relationships, compared to 53 percent of resolution makers ages 30 to 49—indicating that the older group is more likely to make such resolutions. The table also shows that 56 percent of resolution makers ages 50 to 64

made resolutions related to finances, compared to 63 percent of resolution makers ages 30 to 49—indicating that the older group is less likely to make financial resolutions. Thus, the data support the conclusion that resolution makers between the ages of 50 and 64 are more likely to make resolutions related to personal relationships and less likely to make resolutions related to finances than resolution makers between the ages of 30 and 49 are.

Choice B is incorrect because according to the table, 79 percent of resolution makers ages 18 to 29 made resolutions about health and exercise, while 80 percent of resolution makers ages 30 to 49 made such resolutions. Therefore, resolution makers ages 18 to 29 are slightly less likely, not more likely, to make resolutions about health and exercise than resolution makers ages 30 to 49 are. Choice C is incorrect because neither the text nor the table provides information about whether resolution makers who make resolutions related to health and exercise also make resolutions in multiple additional categories. The text indicates that half of those who make a resolution make more than one, but it doesn't specify how many or in which categories, and the table presents only the percentages of resolution makers in each age bracket who made particular kinds of resolutions. Choice D is incorrect because the table presents data only about people who chose to make resolutions, not about all US adults; the table therefore can't support a conclusion about whether US adults overall become less likely to make resolutions as they age. Furthermore, although percentages of resolution makers generally decline as age bracket increases in some resolution categories, the table shows that the percentage of resolution makers who made health and exercise resolutions remains relatively stable across age brackets; thus, even among resolution makers, there isn't a consistent age-related decline across all types of resolutions.

Question Difficulty: Hard

# Question ID 212910a1

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 212910a1

Mosasaurs were large marine reptiles that lived in the Late Cretaceous period, approximately 100 million to 66 million years ago. Celina Suarez, Alberto Pérez-Huerta, and T. Lynn Harrell Jr. examined oxygen-18 isotopes in mosasaur tooth enamel in order to calculate likely mosasaur body temperatures and determined that mosasaurs were endothermic—that is, they used internal metabolic processes to maintain a stable body temperature in a variety of ambient temperatures. Suarez, Pérez-Huerta, and Harrell claim that endothermy would have enabled mosasaurs to include relatively cold polar waters in their range.

Which finding, if true, would most directly support Suarez, Pérez-Huerta, and Harrell’s claim?

- A. Mosasaurs’ likely body temperatures are easier to determine from tooth enamel oxygen-18 isotope data than the body temperatures of nonendothermic Late Cretaceous marine reptiles are.
- B. Fossils of both mosasaurs and nonendothermic marine reptiles have been found in roughly equal numbers in regions known to be near the poles during the Late Cretaceous, though in lower concentrations than elsewhere.
- C. Several mosasaur fossils have been found in regions known to be near the poles during the Late Cretaceous, while relatively few fossils of nonendothermic marine reptiles have been found in those locations.
- D. During the Late Cretaceous, seawater temperatures were likely higher throughout mosasaurs’ range, including near the poles, than seawater temperatures at those same latitudes are today.

ID: 212910a1 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents the finding that, if true, would best support Suarez, Pérez-Huerta, and Harrell’s claim about mosasaurs. The text states that Suarez, Pérez-Huerta, and Harrell’s research on mosasaur tooth enamel led them to conclude that mosasaurs were endothermic, which means that they could live in waters at many different temperatures and still maintain a stable body temperature. The researchers claim that endothermy enabled mosasaurs to live in relatively cold waters near the poles. If several mosasaur fossils have been found in areas that were near the poles during the period when mosasaurs were alive and fossils of nonendothermic marine reptiles are rare in such locations, that would support the researchers’ claim: it would show that mosasaurs inhabited polar waters but nonendothermic marine mammals tended not to, suggesting that endothermy may have been the characteristic that enabled mosasaurs to include polar waters in their range.

Choice A is incorrect because finding that it’s easier to determine mosasaur body temperatures from tooth enamel data than it is to determine nonendothermic reptile body temperatures wouldn’t support the researchers’ claim. Whether one research process is more difficult than another indicates nothing about the results of those processes and therefore is irrelevant to the issue of where mosasaurs lived and what enabled them to live in those locations. Choice B is incorrect because finding roughly equal numbers of mosasaur and nonendothermic marine reptile fossils in areas that were near the poles in the Late Cretaceous would suggest that endothermy didn’t give mosasaurs any particular advantage when it came to expanding their range to include relatively cold polar waters, thereby weakening the researchers’ claim rather than supporting it. Choice D is incorrect because

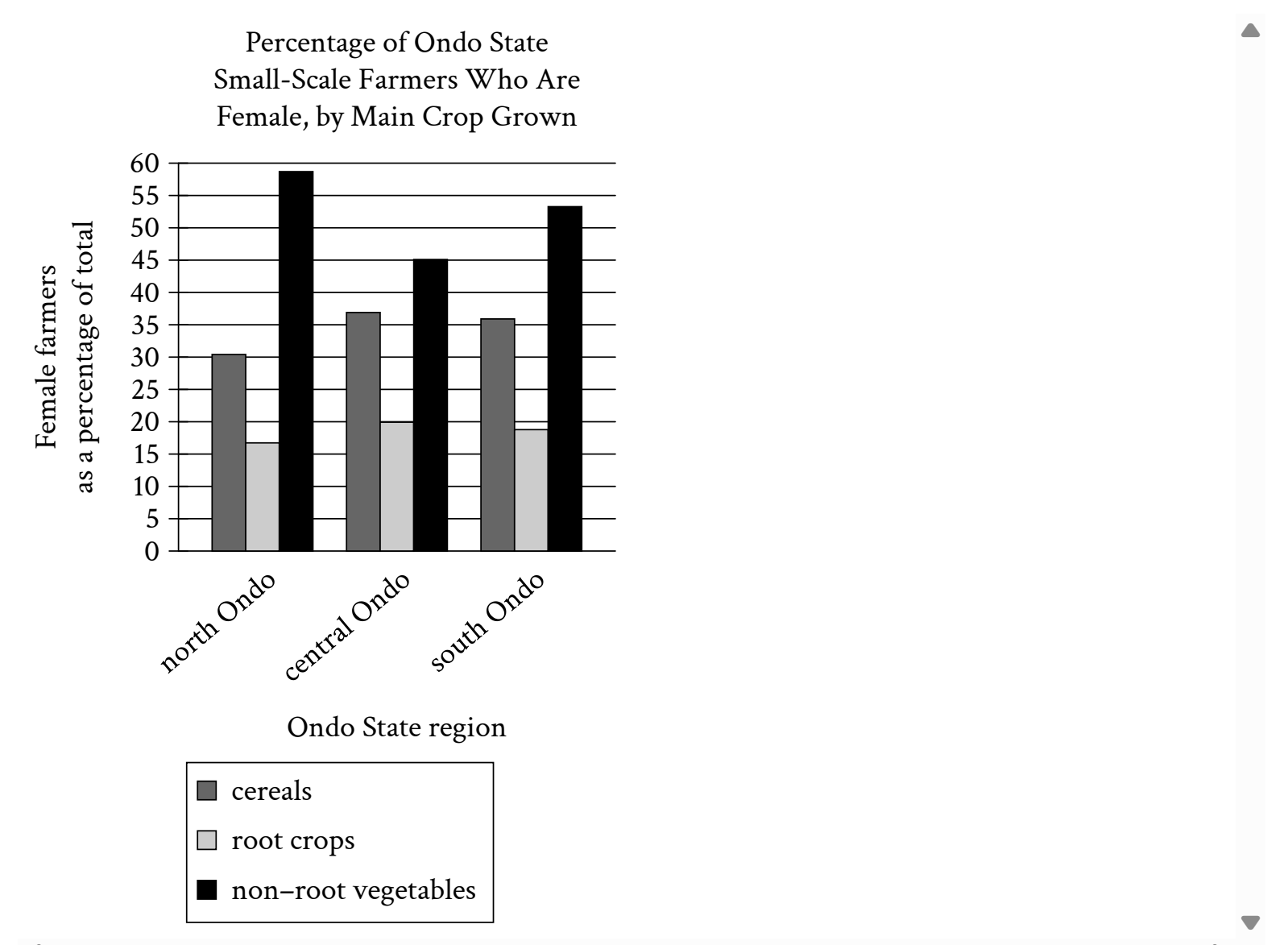
finding that the temperature of seawater in the Late Cretaceous was warmer than seawater today wouldn't weaken the researchers' claim. Seawater in the Late Cretaceous could have been warmer than seawater today but still cold enough for endothermy to be advantageous to mosasaurs, so this finding wouldn't provide enough information to either support or weaken the researchers' claim.

Question Difficulty: Hard

Question ID 8f8b176c

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8f8b176c



Geographer Adebayo Oluwole Eludoyin and his colleagues surveyed small-scale farmers in three locations in Ondo State, Nigeria—which has mountainous terrain in the north, an urbanized center, and coastal terrain in the south—to learn more about their practices, like the types of crops they mainly cultivated. In some regions, female farmers were found to be especially prominent in the cultivation of specific types of crops and even constituted the majority of farmers who cultivated those crops; for instance,

- Which choice most effectively uses data from the graph to complete the example?
- A. most of the farmers who mainly cultivated cereals and most of the farmers who mainly cultivated non-root vegetables in south Ondo were women.

- B. more women in central Ondo mainly cultivated root crops than mainly cultivated cereals.
- C. most of the farmers who mainly cultivated non-root vegetables in north and south Ondo were women.
- D. a relatively equal proportion of women across the three regions of Ondo mainly cultivated cereals.

**ID: 8f8b176c Answer**

Correct Answer: C

Rationale

Choice C is the best answer because it uses data from the graph to effectively complete the example of Eludoyin and his colleagues’ findings concerning female farmers in some regions of Ondo State, Nigeria. The graph presents values for the percentage of Ondo State small-scale farmers who are female, by type of crop and region. The graph shows that of the farmers mainly cultivating non-root vegetables, approximately 57% in north Ondo and approximately 54% in south Ondo are female; in other words, most of those farmers are female, which exemplifies the idea that female farmers make up the majority (more than half) of the farmers cultivating specific types of crops in some regions.

Choice A is incorrect because it inaccurately cites data from the graph: the graph shows that in south Ondo, most of the farmers mainly cultivating non-root vegetables are women (approximately 54%), but that only about 35% (less than half) of the farmers mainly cultivating cereals are women. Choice B is incorrect because it inaccurately cites data from the graph: the graph shows that more women in central Ondo mainly cultivate cereals than mainly cultivate root crops (approximately 36% and 20%, respectively). Additionally, it doesn’t effectively complete the example because the graph shows that female farmers don’t make up the majority (more than half) of the farmers for any type of crop in central Ondo. Choice D is incorrect because it doesn’t effectively complete the example; it simply states that a relatively equal proportion of women across the three regions mainly cultivate cereals, which doesn’t address the value for that proportion and thus doesn’t show that a majority (more than half) of the farmers cultivating certain crops are female.

Question Difficulty: Hard

# Question ID 9f8900d5

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 9f8900d5

Given that stars and planets initially form from the same gas and dust in space, some astronomers have posited that host stars (such as the Sun) and their planets (such as those in our solar system) are composed of the same materials, with the planets containing equal or smaller quantities of the materials that make up the host star. This idea is also supported by evidence that rocky planets in our solar system are composed of some of the same materials as the Sun.

Which finding, if true, would most directly weaken the astronomers’ claim?

- A. Most stars are made of hydrogen and helium, but when cooled they are revealed to contain small amounts of iron and silicate.
- B. A nearby host star is observed to contain the same proportion of hydrogen and helium as that of the Sun.
- C. Evidence emerges that the amount of iron in some rocky planets is considerably higher than the amount in their host star.
- D. The method for determining the composition of rocky planets is discovered to be less effective when used to analyze other kinds of planets.

ID: 9f8900d5 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would weaken the astronomers’ claim about the makeup of host stars and their planets. The text explains that because stars and planets begin forming from the same gas and dust, astronomers believe planets should be composed of the same materials as their host stars, but in equal or smaller quantities. The finding that the amount of iron in some rocky planets is much higher than the amount in their host star would weaken the astronomers’ claim because it would show that some planets contain the same material as their host star, but in higher quantities.

Choice A is incorrect because a finding only about the makeup of stars, whether they’ve cooled or not, would provide no information about the makeup of planets. Thus, it wouldn’t have any bearing on the claim that planets and their host stars are composed of the same materials in differing quantities. Choice B is incorrect because a finding about two host stars having similar proportions of certain materials wouldn’t provide any information about the makeup of planets. Thus, it wouldn’t be relevant to the claim that planets and their host stars are composed of the same materials in differing quantities. Choice D is incorrect because the text indicates that the astronomers’ claim is based on a fact—that stars and planets begin forming from the same gas and dust in space—which would remain true regardless of the effectiveness of a method for analysis of compositions. The text does cite analysis of rocky planets in our solar system and the Sun, but only as a single piece of evidence that is consistent with the claim and not as the source of the claim; the finding that the method used for that analysis is less effective in other scenarios wouldn’t weaken a claim that’s based on knowledge of how stars and planets initially form.

Question Difficulty: Hard

# Question ID 2f3c795c

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 2f3c795c

Early Earth is thought to have been characterized by a stagnant lid tectonic regime, in which the upper lithosphere (the outer rocky layer) was essentially immobile and there was no interaction between the lithosphere and the underlying mantle. Researchers investigated the timing of the transition from a stagnant lid regime to a tectonic plate regime, in which the lithosphere is fractured into dynamic plates that in turn allow lithospheric and mantle material to mix. Examining chemical data from lithospheric and mantle-derived rocks ranging from 285 million to 3.8 billion years old, the researchers dated the transition to 3.2 billion years ago.

Which finding, if true, would most directly support the researchers’ conclusion?

- A. Among rocks known to be older than 3.2 billion years, significantly more are mantle derived than lithospheric, but the opposite is true for the rocks younger than 3.2 billion years.
- B. Mantle-derived rocks older than 3.2 billion years show significantly more compositional diversity than lithospheric rocks older than 3.2 billion years do.
- C. There is a positive correlation between the age of lithospheric rocks and their chemical similarity to mantle-derived rocks, and that correlation increases significantly in strength at around 3.2 billion years old.
- D. Mantle-derived rocks younger than 3.2 billion years contain some material that is not found in older mantle-derived rocks but is found in older and contemporaneous lithospheric rocks.

ID: 2f3c795c Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would most directly support the researchers’ conclusion that the transition from a stagnant lid regime to a tectonic plate regime occurred around 3.2 billion years ago. The text explains that early in Earth’s history, Earth exhibited a stagnant lid regime in which there’s no interaction between the lithosphere and the underlying mantle. The text further explains that, by contrast, once Earth began to exhibit a tectonic plate regime, its lithospheric and mantle material began to mix. If mantle-derived rocks younger than 3.2 billion years contain material not found in older mantle-derived rocks, that material must have originated somewhere other than the mantle. And if this material is found in both older and contemporaneous lithospheric rocks, that would imply that the lithosphere was able to mix with mantle material beginning around 3.2 billion years ago, as the researchers concluded.

Choice A is incorrect. The text gives no basis for comparing the quantities of lithospheric and mantle-derived rocks. Choice B is incorrect. The text gives no basis for comparing the material makeup of lithospheric rocks to that of mantle-derived rocks. Choice C is incorrect. A positive correlation between the age of lithospheric rocks and these rocks’ chemical similarity to mantle-derived rocks would mean that the oldest rocks would be the most similar, which contradicts the text’s claim that lithospheric and mantle-derived rocks were completely separate until 3.2 billion years ago. If the researchers’ conclusion about the onset of tectonics on Earth is correct, then younger lithospheric rocks would show greater chemical similarity to mantle-derived rocks than older lithospheric rocks do.



# Question ID 1c8ea715

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 1c8ea715

A student in a political science course is writing a paper on Aristotle's *The Politics*, in which Aristotle offers his opinion on political instability and gives advice on how constitutions can be preserved. Aristotle observes that different forms of government can fall in different ways—for example, oligarchies might grant power to military leaders during wartime who refuse to relinquish that power during peacetime—but some methods of preserving order apply across all forms of government. The student claims that in particular Aristotle asserts that in a healthy state obedience to law must be as close to absolute as possible and that even minor infractions should not be ignored.

Which quotation from a philosopher’s analysis of *The Politics* would best support the student’s claim?

- A. “When constructing his argument regarding the characteristics of a well-functioning government, Aristotle asserts that ‘Transgression creeps in unperceived and at last ruins the state,’ illustrating this idea with a comparison to frequent small expenditures slowly and almost imperceptibly chipping away at a fortune until it is ultimately depleted.”
- B. “When Aristotle writes on the necessity of avoiding corruption in government, he proposes that ‘every state should be so administered and so regulated by law that its magistrates cannot possibly make money.’ In particular, he thinks oligarchies are particularly susceptible to corruption through bribery.”
- C. “When Aristotle considers the health of constitutions, he states that ‘Constitutions are preserved when their destroyers are at a distance, and sometimes also because they are near, for the fear of them makes the government keep in hand the constitution.’ He holds that rulers who wish to see constitutions preserved must continually remind the populace of the dangers that would result from a constitutional collapse.”
- D. “When contrasting different forms of government, Aristotle holds that ‘oligarchies may last, not from any inherent stability in such forms of government, but because the rulers are on good terms both with the unenfranchised and with the governing classes.’ That is, oligarchic leaders who wish to hold on to power will introduce members of disenfranchised classes into government in a participatory role.”

ID: 1c8ea715 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents the quotation that best supports the student’s claim that in *The Politics*, Aristotle gives advice on preserving constitutions—preventing governments from falling and maintaining order—and specifically asserts that in a healthy state, laws must be followed as strictly as possible and infractions should not be overlooked even if they are minor. The philosopher states that when Aristotle builds his argument about the characteristics of a well-functioning government, Aristotle asserts that transgression, or violation of law, will ruin the state if it "creeps in unperceived," or goes unnoticed. The philosopher then adds that Aristotle illustrates this point by comparing the situation to one in which small but frequent expenses diminish a fortune almost unnoticeably until, eventually, the fortune is entirely gone. In other words, the philosopher indicates that Aristotle makes the point that total obedience to law preserves a healthy state while even small violations, if ignored, will undermine the health of the state.

Choice B is incorrect because the philosopher addresses Aristotle's observation about corruption within the government (in particular, preventing the possibility that members of the government can take bribes), and although corruption can involve infractions, the observation is about a subset of people within the state and isn't directly connected to the importance of upholding total obedience to the law throughout the state. Choice C is incorrect because the philosopher discusses Aristotle's point about those who would intentionally destroy a constitution altogether and the need for rulers to remind the populace that it would be dangerous for a constitution to collapse, but neither idea is directly connected to the importance of upholding total obedience to the law. Choice D is incorrect because the philosopher explains that Aristotle makes the point that oligarchic leaders may retain power by having members of disenfranchised classes participate in government alongside governing classes, and this point doesn't address the importance of ensuring obedience to the law and addressing even minor violations.

Question Difficulty: Hard

# Question ID 9e4ab29e

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 9e4ab29e

Plants like potatoes, tomatoes, and soybeans are susceptible to bacterial wilt disease caused by the bacteria *Ralstonia solanacearum*. A multinational team of scientists led by Zhong Wei studied whether other microbes in the soil might influence the degree to which plants are affected by the disease. The team sampled soil surrounding individual tomato plants over time and compared the results of plants that became diseased with those that remained healthy. They concluded that the presence of certain microbes in the soil might explain the difference between healthy and diseased plants.

Which finding, if true, would most directly support the team’s conclusion?

- A. The soil surrounding healthy plants contained significantly higher concentrations of microbes known to inhibit *Ralstonia solanacearum* than the soil surrounding diseased plants did.
- B. The soil surrounding the plants contained high concentrations of *Ralstonia solanacearum* regardless of whether the plants were affected by wilt disease.
- C. The soil surrounding healthy plants tended to have significantly higher moisture levels than the soil surrounding diseased plants did.
- D. By the end of the experiment, over half the plants had been affected by wilt disease regardless of differences in the types and concentrations of microbes in the surrounding soil.

ID: 9e4ab29e Answer

Correct Answer: A

Rationale

Choice A is the best answer. This choice provides evidence that directly links the presence of *R. solanacearum*-inhibiting microbes in the soil to the health of tomato plants.

Choice B is incorrect. This choice would weaken the team’s conclusion. It suggests that the presence of the disease-causing bacteria had no effect on the health of the tomato plants. Choice C is incorrect. This choice doesn’t support the team’s conclusion. The conclusion is about microbes, not soil moisture. Choice D is incorrect. This choice would weaken the team’s conclusion. It suggests that the presence of the bacteria-inhibiting microbe in soil had no effect on the health of the tomato plants.

Question Difficulty: Hard

Question ID cb912b8b

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: cb912b8b

North American Thrasher Mean Bill Size and Habitat Temperature Range

| Species              | Mean bill surface area (cm <sup>2</sup> ) | Mean maximum temperature of warmest month (°C) | Mean minimum temperature of coldest month (°C) |
|----------------------|-------------------------------------------|------------------------------------------------|------------------------------------------------|
| Brown thrasher       | 1.86                                      | 30.40                                          | -4.29                                          |
| Bendire's thrasher   | 1.98                                      | 36.57                                          | 0.24                                           |
| Long-billed thrasher | 2.24                                      | 35.27                                          | 8.82                                           |
| Cozumel thrasher     | 2.28                                      | 33.27                                          | 18.21                                          |
| Ocellated thrasher   | 3.26                                      | 27.56                                          | 5.45                                           |

It has been hypothesized that since birds can dissipate excess heat through their bills, bill size should increase with habitat temperature. To evaluate this hypothesis for a 2021 study, Charlotte Probst and colleagues gathered data on mean bill surface area of species of North American thrashers (genus: *Toxostoma*) as well as on climate conditions of the birds' native habitats. Based on their data, Probst and colleagues concluded that the hypothesis was not fully supported.

Which choice most effectively uses data from the table to support Probst and colleagues' conclusion?

- A. Although the Bendire's thrasher has one of the smallest mean bill surface areas of the birds included in the table, its habitat has one of the lowest mean maximum temperatures in the warmest month and one of the lowest mean minimum temperatures in the coldest month.
- B. Although the Cozumel thrasher has the second greatest mean bill surface area of the birds included in the table, its habitat's mean temperature in the warmest month is significantly higher than that of the other birds' habitats.
- C. Of the birds included in the table, the brown thrasher has the smallest mean bill surface area and the habitat with the lowest mean minimum temperature in the coldest month, while the long-billed thrasher has the second-largest mean bill surface area and the habitat with the second-highest mean minimum temperature in the coldest month.
- D. Of the birds included in the table, the ocellated thrasher has the largest mean bill surface area and the habitat with the lowest mean maximum temperature in the warmest month, while the Bendire's thrasher has the second smallest mean bill surface area and the habitat with the highest mean maximum temperature in the warmest month.

ID: cb912b8b Answer

Correct Answer: D

## Rationale

Choice D is the best answer because it most effectively uses data from the table to support Probst and colleagues' conclusion about the hypothesis regarding the relationship between birds' bill size and habitat temperature. The text states that although it has been hypothesized that birds' bill size should increase with habitat temperature (an adaptation that reflects the fact that birds can release excess heat through their bills), Probst and colleagues concluded after studying mean bill surface area in North American thrashers that this hypothesis was not fully supported. In other words, Probst and colleagues did not observe the predicted positive relationship between mean bill surface area and habitat temperature in the thrashers they studied. The data in the table about the ocellated thrasher support Probst and colleagues' conclusion because this species has the greatest mean bill surface area ( $3.26 \text{ cm}^2$ ), but its habitat has the lowest mean maximum temperature in the warmest month ( $27.56^\circ\text{C}$ ). If the hypothesis were fully supported, species such as the ocellated thrasher that have colder habitats would likely also have smaller bills. Similarly, the data about the Bendire's thrasher support Probst and colleagues' conclusion because this species has the second-smallest mean bill surface area ( $1.98 \text{ cm}^2$ ), yet its habitat has the highest mean maximum temperature in the warmest month ( $36.57^\circ\text{C}$ ). If the hypothesis were fully supported, the Bendire's thrasher and other species with warmer habitats would also have larger bills. Because data in the table show that the ocellated thrasher and the Bendire's thrasher have the opposite or near opposite of the hypothesized relationship between bill size and habitat temperature, these examples support Probst and colleagues' conclusion that this hypothesis isn't fully supported.

Choice A is incorrect because it misrepresents the data in the table. Although the Bendire's thrasher has the second-smallest mean bill surface area of the species that are included in the table and although its habitat has the second-lowest mean minimum temperature in the coldest month, this habitat has the highest (rather than the lowest) mean maximum temperature in the warmest month. Moreover, the data about this species' bill surface area and mean minimum temperature suggest that smaller bills are associated with colder habitats, supporting rather than challenging the hypothesis that bill size increases with habitat temperature. Choice B is incorrect because it misrepresents the data in the table. Although the Cozumel thrasher has the second-greatest mean bill surface area of the species that are included in the table, its habitat's mean maximum temperature in the warmest month is not "significantly higher" than the mean maximum temperatures of the other habitats. On the contrary, the mean maximum temperature of the Cozumel thrasher's habitat is lower than that observed for the habitats of both the Bendire's thrasher and the long-billed thrasher. Choice C is incorrect because it misrepresents the data in the table. Although this choice accurately describes the brown thrasher's mean bill surface area and habitat temperature, it incorrectly states that the long-billed thrasher has the second-largest (rather than the third-largest) mean bill surface area of the species included. In addition, instead of revealing a lack of support for the hypothesis that bill size increases with habitat temperature, the data in this choice broadly reflect the hypothesized relationship.

Question Difficulty: Hard

# Question ID 6875c7a6

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6875c7a6

“The Poet Walt Whitman” is an 1887 essay by José Martí, a Cuban author and political activist, originally written in Spanish. In the essay, Martí explores the value of literature, arguing that a society’s spiritual well-being depends on the character of its literary culture: \_\_\_\_\_

Which quotation from a translation of “The Poet Walt Whitman” most effectively illustrates the claim?

- A. “Poetry, which brings together or separates, which fortifies or brings anguish, which shores up or demolishes souls, which gives or robs men of faith and vigor, is more necessary to a people than industry itself, for industry provides them with a means of subsistence, while literature gives them the desire and strength for life.”
- B. “Every society brings to literature its own form of expression, and the history of the nations can be told with greater truth by the stages of literature than by chronicles and decades.”
- C. “Where will a race of men go when they have lost the habit of thinking with faith about the scope and meaning of their actions? The best among them, those who consecrate Nature with their sacred desire for the future, will lose, in a sordid and painful annihilation, all stimulus to alleviate the ugliness of humanity.”
- D. “Listen to the song of this hardworking and satisfied nation; listen to Walt Whitman. The exercise of himself exalts him to majesty, tolerance exalts him to justice, and order to joy.”

ID: 6875c7a6 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively illustrates the claim that Martí argues that a society’s spiritual well-being depends on the character of its literary culture. In the quotation, Martí asserts that poetry is “more necessary to a people than industry itself” and that it has the power to provide people with “faith and vigor.” He also adds that literature gives people “the desire and strength for life.” Therefore, this quotation shows that Martí believes that literature is a societal necessity because it uplifts people and nourishes their spiritual well-being.

Choice B is incorrect. Although this quotation emphasizes the importance of literature, it focuses on how the nature of a society is reflected in that society’s literature rather than on literature’s value for people’s spiritual well-being. Choice C is incorrect. Although this quotation involves an element of spirituality, it doesn’t discuss literature. The quotation instead focuses on humanity’s actions. Choice D is incorrect because this quotation mainly focuses on the importance of Walt Whitman rather than on the value of literature in general.

Question Difficulty: Hard

# Question ID 77953e2f

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 77953e2f

“Mr. Cornelius Johnson, Office-Seeker” is a 1900 short story by Paul Laurence Dunbar. In the story, the narrator describes Mr. Cornelius Johnson’s appearance as conveying his exaggerated sense of his importance: \_\_\_\_\_

Which quotation from “Mr. Cornelius Johnson, Office-Seeker” most effectively illustrates the claim?

- A. “He carried himself always as if he were passing under his own triumphal arch.”
- B. “The grey Prince Albert was scrupulously buttoned about his form, and a shiny top hat replaced the felt of the afternoon.”
- C. “It was a beautiful day in balmy May and the sun shone pleasantly on Mr. Cornelius Johnson’s very spruce Prince Albert suit of grey as he alighted from the train in Washington.”
- D. “Mr. Cornelius Johnson always spoke in a large and important tone.”

ID: 77953e2f Answer

Correct Answer: A

Rationale

Choice A is the best answer. This quote most effectively illustrates the claim. The claim is that the narrator describes Mr. Johnson as arrogant and self-important. This basically says that Mr. Johnson always looks like he’s congratulating himself for something, which definitely supports the idea that Mr. Johnson is arrogant! .

Choice B is incorrect. This quote doesn’t illustrate the claim. The claim is that the narrator describes Mr. Johnson’s appearance as conveying his arrogance. This describes his appearance, but the description doesn’t suggest a sense of arrogance. Choice C is incorrect. This quote doesn’t illustrate the claim. The claim is that the narrator describes Mr. Johnson’s appearance as conveying his arrogance. This doesn’t describe Mr. Johnson’s appearance very much, and it doesn’t suggest a sense of arrogance. Choice D is incorrect. This quote doesn’t effectively illustrate the claim. It describes Mr. Johnson’s tone of voice as “large and important,” but it doesn’t describe his appearance as conveying a sense of self-importance.

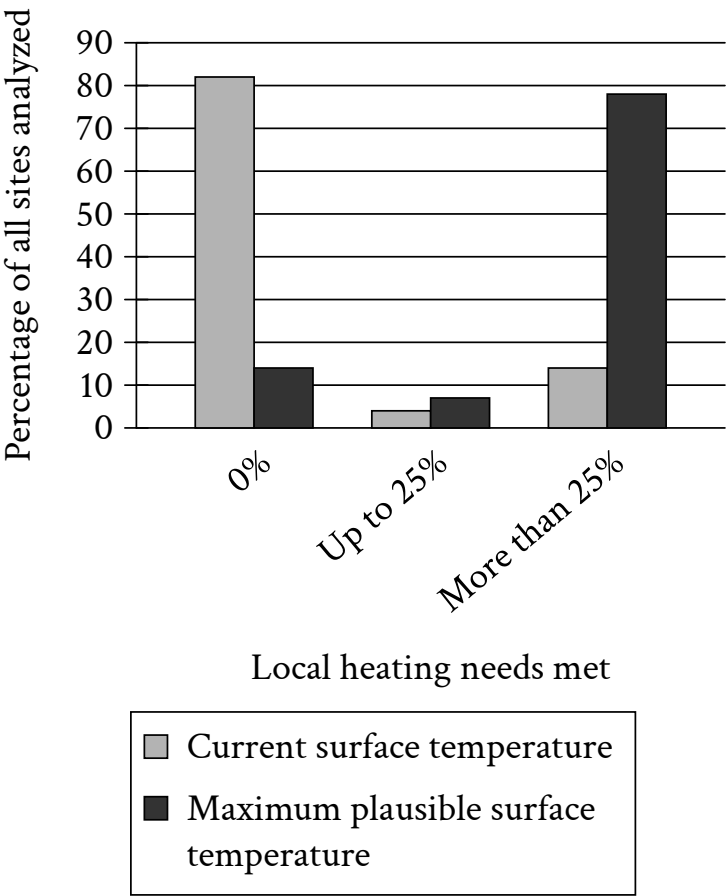
Question Difficulty: Hard

Question ID 6b1f0e55

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6b1f0e55

Home Heating Needs Met with Subsurface Thermal Pollution for Two Temperature Conditions, by Percentage of Sites



Urbanization, industrialization, and the warming climate create thermal pollution (excess heat) in the shallow subsurface soil. Susanne A. Benz and colleagues analyzed thousands of sites on three continents under one scenario in which surface temperature remains at the current level and under another in which the surface reaches the maximum plausible temperature. They then categorized each site according to the percentage of local home heating needs that could be met using this excess subsurface heat. The team concluded that if surface temperature approaches the maximum plausible level, the percentage of sites where thermal pollution could feasibly contribute to meeting home heating needs will increase.

Which choice best describes data in the graph that support Benz and colleagues’ conclusion?

- A. Under both temperature conditions, less than 10% of sites were in the up-to-25% group, but at the maximum plausible surface temperature, almost 80% of sites could have all their local heating needs met by thermal pollution.

- B. At current surface temperatures, more than 80% of the sites have no need for supplemental local home heating from subsurface thermal pollution, but at the maximum plausible surface temperature, more than 70% of sites exhibit significantly greater home heating needs.
- C. At current surface temperatures, more than 80% of sites can meet, at most, 25% of local home heating needs with subsurface thermal pollution, but at the maximum plausible surface temperature, more than 80% of sites can meet greater than 25% of local home heating needs.
- D. At current surface temperatures, more than 80% of the sites cannot use subsurface thermal pollution to meet any portion of local home heating needs, but at the maximum plausible surface temperature, that percentage drops below 20%.

**ID: 6b1f0e55 Answer**

Correct Answer: D

Rationale

Choice D is the best answer. The researchers concluded that as we approach maximum plausible surface temperatures, there will be a larger percentage of sites where thermal pollution could contribute to meeting home heating needs. By showing that only a small percentage of homes can currently use thermal pollution for home heating, and that this percentage would grow much larger at maximum plausible surface temperatures, this choice supports the researchers' conclusion.

Choice A is incorrect. We do not know how many sites could have all (i.e., 100%) of their local heating needs met by thermal pollution, as the graph only classifies sites by whether "0%," "Up to 25%," and "More than 25%" of heating needs could be met. Choice B is incorrect. The graph is not depicting need for supplemental heating from thermal pollution, but rather potential to use thermal pollution for supplemental heating. Choice C is incorrect. The graph indicates that, at current surface temperatures, less than 10% of sites can meet 25% of local home heating needs and that more than 80% of sites cannot meet any local home heating needs.

Question Difficulty: Hard

Question ID eb7ba11e

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: eb7ba11e

Effect of Paywall Introduction on Newspaper Companies’ Revenues

| Newspaper          | Total revenue change (\$ in thousands) | Percentage change (%) | Newspaper size |
|--------------------|----------------------------------------|-----------------------|----------------|
| Los Angeles Times  | 93,966                                 | 12.5                  | large          |
| The New York Times | 235,788                                | 20                    | large          |
| The Denver Post    | −3,765                                 | −1                    | small          |
| Sun Sentinel       | −24,899                                | −11.9                 | small          |
| Chicago Tribune    | 94,492                                 | 19                    | large          |

Digital paywalls restrict access to online content to those with a paid subscription. In an investigation of the effect of paywalls on newspaper company revenues for print and digital subscriptions and advertising, Doug J. Chung and colleagues compared actual outcomes (with a paywall) to control estimates (without a paywall). The researchers concluded that introducing a paywall is generally more beneficial for larger newspapers, which have high circulation and tend to offer a substantial amount of unique online content.

Which choice best describes data from the table that support Chung and colleagues’ conclusion?

- A. The *Chicago Tribune* and the *Los Angeles Times* had similar total revenue changes, but the *Los Angeles Times* had a smaller percentage change.
- B. The *Los Angeles Times* had a 12.5% revenue change, while the *Chicago Tribune* had a 19% revenue change.
- C. The *New York Times* had a 20% revenue change, while the *Denver Post* had a −1% revenue change.
- D. The *Denver Post* had only a −1% revenue change, which was the smallest percentage change of the selected companies.

ID: eb7ba11e Answer

Correct Answer: C

Rationale

Choice C is the best answer. The conclusion is that paywalls are more beneficial for large newspapers. This data supports that conclusion by comparing the revenue increase of a large newspaper to the revenue decrease of a small newspaper.

Choice A is incorrect. This choice doesn’t support the conclusion. It doesn’t include any small newspapers for comparison.

Choice B is incorrect. This choice doesn’t support the conclusion. It doesn’t include any small newspapers for comparison.

Choice D is incorrect. This choice doesn’t support the conclusion. It doesn’t include any large newspapers for comparison.

Question Difficulty: Hard

# Question ID 289312dd

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 289312dd

Political scientists who favor the traditional view of voter behavior claim that voting in an election does not change a voter’s attitude toward the candidates in that election. Focusing on each US presidential election from 1976 to 1996, Ebonya Washington and Sendhil Mullainathan tested this claim by distinguishing between subjects who had just become old enough to vote (around half of whom actually voted) and otherwise similar subjects who were slightly too young to vote (and thus none of whom voted). Washington and Mullainathan compared the attitudes of the groups of subjects toward the winning candidate two years after each election.

Which finding from Washington and Mullainathan’s study, if true, would most directly weaken the claim made by people who favor the traditional view of voter behavior?

- A. Subjects’ attitudes toward the winning candidate two years after a given election were strongly predicted by subjects’ general political orientation, regardless of whether subjects were old enough to vote at the time of the election.
- B. Subjects who were not old enough to vote in a given election held significantly more positive attitudes towards the winning candidate two years later than they held at the time of the election.
- C. Subjects who voted in a given election held significantly more polarized attitudes toward the winning candidate two years later than did subjects who were not old enough to vote in that election.
- D. Two years after a given election, subjects who voted and subjects who were not old enough to vote were significantly more likely to express negative attitudes than positive attitudes toward the winning candidate in that election.

ID: 289312dd Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would weaken the claim made by people who favor the traditional view of voter behavior. According to the text, people who favor that view believe that voting in an election doesn’t change a voter’s attitude toward the candidates in that election. If Washington and Mullainathan found that two years after an election, attitudes toward the winning candidate were significantly more polarized among subjects who had voted than among subjects who had been too young to vote, that would suggest that the act of voting did have an effect on the voters’ attitudes toward the candidates, which would undermine the claim that voting doesn’t change voters’ attitudes.

Choice A is incorrect because a finding about links between subjects’ attitudes and general political orientation, regardless of age and ability to vote, wouldn’t address the presence or absence of changes in attitudes among those subjects who did actually vote. Therefore, the finding wouldn’t have any bearing on the claim that voting in an election doesn’t change a voter’s attitude toward the candidates in that election. Choice B is incorrect because a finding that positive attitudes toward a winning candidate significantly increased in the two years after the election among subjects who had been too young to vote would involve only people who didn’t vote; therefore, the finding wouldn’t have any bearing on the claim that when people do vote, the act of voting doesn’t change their attitudes toward the candidates. Choice D is incorrect because the finding that subjects in both groups were

more likely to have negative attitudes than positive attitudes toward the winning candidate two years after an election would reflect all subjects' attitudes at one particular time whether they voted or not, rather than the presence or absence of a change in voters' attitudes after voting. Therefore, the finding would neither weaken nor strengthen the claim that voting in an election doesn't change a voter's attitude toward the candidates.

Question Difficulty: Hard

# Question ID 7c7dba12

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7c7dba12

*O Pioneers!* is a 1913 novel by Willa Cather. In the novel, Cather depicts Alexandra Bergson as a person who takes comfort in understanding the world around her: \_\_\_\_\_

Which quotation from *O Pioneers!* most effectively illustrates the claim?

- A. "She looked fixedly up the bleak street as if she were gathering her strength to face something, as if she were trying with all her might to grasp a situation which, no matter how painful, must be met and dealt with somehow."
- B. "She had never known before how much the country meant to her. The chirping of the insects down in the long grass had been like the sweetest music. She had felt as if her heart were hiding down there, somewhere, with the quail and the plover and all the little wild things that crooned or buzzed in the sun. Under the long shaggy ridges, she felt the future stirring."
- C. "Alexandra drove off alone. The rattle of her wagon was lost in the howling of the wind, but her lantern, held firmly between her feet, made a moving point of light along the highway, going deeper and deeper into the dark country."
- D. "Alexandra drew her shawl closer about her and stood leaning against the frame of the mill, looking at the stars which glittered so keenly through the frosty autumn air. She always loved to watch them, to think of their vastness and distance, and of their ordered march. It fortified her to reflect upon the great operations of nature, and when she thought of the law that lay behind them, she felt a sense of personal security."

ID: 7c7dba12 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it most effectively uses a quotation from *O Pioneers!* to illustrate the claim that Alexandra Bergson takes comfort in understanding the world around her. In the quotation, Alexandra is described as enjoying looking at the stars and feeling a "sense of personal security" when she contemplates nature's order and its governing laws. This suggests that Alexandra takes comfort in understanding the world around her.

Choice A is incorrect because the quotation expresses how Alexandra Bergson attempts to meet difficult situations with determination, not how she takes comfort in understanding the world around her. Choice B is incorrect because the quotation expresses "how much the country meant to" Alexandra Bergson, not how she takes comfort in understanding the world around her. In detailing some of the wildlife surrounding Alexandra, the quotation conveys that nature is important to her but not necessarily that it gives her comfort. Choice C is incorrect because the quotation describes Alexandra driving her wagon down a highway at night; it doesn't describe how she takes comfort in understanding the world around her or address how she's feeling as she drives off.

Question Difficulty: Hard

# Question ID 6e888a2f

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6e888a2f

In the twentieth century, ethnographers made a concerted effort to collect Mexican American folklore, but they did not always agree about that folklore’s origins. Scholars such as Aurelio Espinosa claimed that Mexican American folklore derived largely from the folklore of Spain, which ruled Mexico and what is now the southwestern United States from the sixteenth to early nineteenth centuries. Scholars such as Américo Paredes, by contrast, argued that while some Spanish influence is undeniable, Mexican American folklore is mainly the product of the ongoing interactions of various cultures in Mexico and the United States.

Which finding, if true, would most directly support Paredes’s argument?

- A. The folklore that the ethnographers collected included several songs written in the form of a *décima*, a type of poem originating in late sixteenth-century Spain.
- B. Much of the folklore that the ethnographers collected had similar elements from region to region.
- C. Most of the folklore that the ethnographers collected was previously unknown to scholars.
- D. Most of the folklore that the ethnographers collected consisted of *corridos*—ballads about history and social life—of a clearly recent origin.

ID: 6e888a2f Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would support Paredes’s argument that Mexican-American folklore is mostly the result of cultural interactions in Mexico and the United States rather than an adaptation of Spanish folklore. The text describes a disagreement among scholars about whether Mexican-American folklore mostly derived from the folklore of Spain or originated in Mexico and the United States as cultures there have interacted. The latter view is the argument that Paredes puts forward. If Mexican-American folklore collected in the twentieth century mostly consists of ballads about history and social life that originated recently, then that would support Paredes’s argument, since it would suggest that the folklore mostly arose after Spanish rule ended in the early nineteenth century and that the folklore reflects cultural interactions in Mexico and the United States rather than traditions from Spain.

Choice A is incorrect because the inclusion of songs influenced by sixteenth-century Spanish poetry among Mexican-American folklore collected in the twentieth century would not support Paredes’s view that the folklore was the result of cultural interactions in Mexico and the United States rather than an offshoot of Spanish folklore. If anything, the presence of such songs among the folklore collected in the twentieth century would weaken Paredes’s argument, since it would reflect the influence of Spanish culture on the folklore. Choice B is incorrect because the mere presence of similarities in Mexican-American folklore across regions would not be sufficient to draw a conclusion about where the folklore originated, let alone to support Paredes’s argument that the folklore reflects cultural interactions in Mexico and the United States. In fact, since Paredes argued that Mexican-American folklore is the product of various cultures interacting in Mexico and the United States, he would likely expect there to be regional variations in folklore as different cultures have interacted in different places. Choice C is incorrect because scholars’

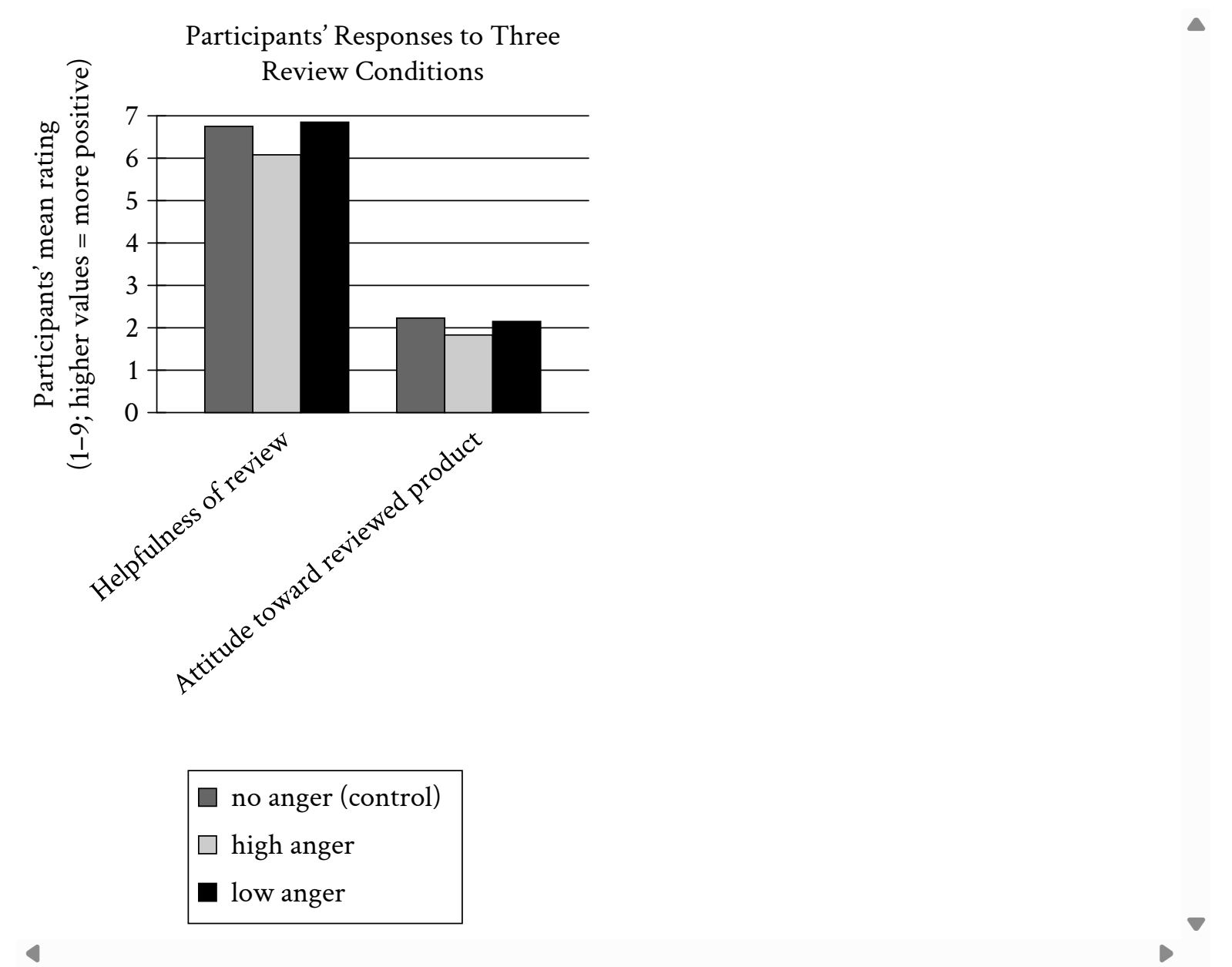
previous ignorance of the folklore would have no bearing on Paredes's argument that Mexican-American folklore mostly reflects cultural interactions in Mexico and the United States. The folklore's origins are independent of scholars' knowledge of the folklore.

Question Difficulty: Hard

Question ID bff2a5b2

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: bff2a5b2



To understand how expressions of anger in reviews of products affect readers of those reviews, business scholar Dezhi Yin and colleagues measured study participants' responses to three versions of the same negative review—a control review expressing no anger, a review expressing a high degree of anger, and a review expressing a low degree of anger. Reviewing the data, a student concludes that the mere presence of anger in a review may not negatively affect readers' perceptions of the review, but a high degree of anger in a review does worsen readers' perceptions of the review.

Which choice best describes data from the graph that support the students' conclusion?

- A. On average, participants' ratings of the helpfulness of the review were substantially higher than were participants' ratings of the reviewed product regardless of which type of review participants had seen.
- B. Compared with participants who saw the control review, participants who saw the low-anger review rated the review as slightly more helpful, whereas participants who saw the high-anger review rated the review as less helpful.
- C. Participants who saw the low-anger review rated the review as slightly more helpful than participants who saw the control review did, but participants' attitude toward the reviewed product was slightly worse when participants saw the low-anger review than when they saw the no-anger review.
- D. Compared with participants who saw the low-anger review, participants who saw the high-anger review rated the review as less helpful and had a less positive attitude toward the reviewed product.

**ID: bff2a5b2 Answer**

Correct Answer: B

Rationale

Choice B is the best answer. The claim is that low anger does not negatively affect readers' perceptions of the review, while high anger does negatively affect readers' perceptions of the review. This choice accurately expresses the supporting data from the "helpfulness of review" part of the graph: that low-anger reviews were rated as slightly more helpful than no-anger reviews, while high-anger reviews were rated as less helpful than no-anger reviews.

Choice A is incorrect. This choice does not support the conclusion. The conclusion is only about how participants feel about the review itself—the participants' ratings of the reviewed product are not relevant. Choice C is incorrect. This choice does not support the conclusion. The conclusion is only about how participants feel about the review itself—the participants' attitude towards the reviewed product is not relevant. Choice D is incorrect. This choice does not support the conclusion. The conclusion is only about how participants feel about the review itself—the participants' attitude towards the reviewed product is not relevant.

Question Difficulty: Hard

Question ID cceb69a7

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: cceb69a7

Initially observed in 2017, the interstellar object ‘Oumuamua is the first object of its kind to be seen in our solar system. Researchers have been puzzled because its acceleration cannot be entirely explained by the gravitational pull of nearby bodies: there must be a nongravitational influence on its velocity and trajectory. Some previously suggested explanations for this nongravitational acceleration involve mechanisms that are unlikely or unrealistic, such as geometric effects from ‘Oumuamua being potentially composed of several spatially separated bodies. Now, Jennifer Bergner and colleagues propose that the nongravitational acceleration is due to the gaseous expulsion of entrapped hydrogen from ‘Oumuamua’s water-rich icy body.

- Which statement, if true, would most strongly support the claim made by Bergner and colleagues about the cause of ‘Oumuamua’s acceleration?
- A. Existing proposed models of outgassing from ‘Oumuamua include the direct conversion of nitrogen or carbon monoxide from a solid to a gaseous state without becoming liquid, but these models have theoretical or observational inconsistencies.
  - B. ‘Oumuamua’s trajectory is inconsistent with a nongravitational acceleration that would be caused by the release of hydrogen gas resulting from the processing of water ice (H<sub>2</sub>O), but the interstellar object’s observable properties can be explained if it has a significant component of molecular hydrogen ice (H<sub>2</sub>).
  - C. Since nongravitational accelerations of interstellar objects are several orders of magnitude weaker than gravitational accelerations, deviation from behavior that could be fully attributed to gravitational pull has been detected on a limited number of objects similar to ‘Oumuamua.
  - D. Exposure to interstellar cosmic radiation can result in the formation of embedded pockets of hydrogen gas in water ice; moreover, when traveling through the solar system, ‘Oumuamua experienced warming sufficient to alter its icy structure and allow for outgassing.

ID: cceb69a7 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents findings that, if true, would support the claim made by Bergner and colleagues that the nongravitational acceleration of ‘Oumuamua is due to the expulsion of entrapped hydrogen. The text first introduces the observation of a unique interstellar object named ‘Oumuamua and goes on to explain that the object exhibited nongravitational acceleration that could not be fully attributed to the expected cause: gravitational pull of nearby celestial bodies. The text concludes by stating that Bergner and colleagues claim that the nongravitational acceleration is caused by expulsion of hydrogen gas from ‘Oumuamua’s water-rich icy body. To support this claim requires evidence that hydrogen gas could be present within ‘Oumuamua at all, which this answer choice presents: cosmic radiation can result in embedded pockets of hydrogen gas in water ice. Additionally, evidence that this gas can be released from such a body is required to fully support the claim, which this answer choice goes on to provide: ‘Oumuamua experienced sufficient warming as it traveled through the solar system to alter its icy structure and release the hydrogen gas. Thus, this answer choice provides the best evidence to support Bergner and colleagues’ claim.

Choice A is incorrect because this answer choice concerns faults with previous models of outgassing from 'Oumuamua of carbon monoxide and nitrogen, which would not support a claim regarding hydrogen outgassing. Furthermore, inconsistencies in other models would not provide evidence in support of a different model or explanation. Choice B is incorrect. The evidence presented in this answer choice would weaken the claim proposed by Bergner and colleagues that the nongravitational acceleration of 'Oumuamua is caused by the expulsion of hydrogen gas because this answer choice suggests that there is evidence that refutes this claim: 'Oumuamua's trajectory is inconsistent with a nongravitational acceleration caused by the release of hydrogen gas. Furthermore, the remaining portion of this answer choice is unrelated to the claim. Choice C is incorrect because the claim being made by Bergner and colleagues concerns the expulsion of entrapped hydrogen gas, but this answer choice is concerned solely with the differences in magnitude of gravitational and nongravitational acceleration, which would not support Bergner's claim. Furthermore, this answer choice discusses interstellar objects similar to 'Oumuamua, but the text states that 'Oumuamua is the first observed object of its kind in our solar system, so evidence from other, similar bodies would not be available.

Question Difficulty: Hard

# Question ID 2682b2de

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 2682b2de

In 1967 the US Congress created the Corporation for Public Broadcasting, which in turn created National Public Radio (NPR). NPR began producing and distributing high-quality news and cultural programming to affiliate stations across the United States in 1971. In a research paper, a student claims that the Corporation for Public Broadcasting and NPR were inspired by the British Broadcasting System (BBC), which had been established in the 1920s.

Which quotation from a work by a historian would be the most effective evidence for the student to include in support of this claim?

- A. "Although the BBC had begun as a private corporation, politicians successfully argued to make it a public company because they believed a public broadcaster could help build national unity in the aftermath of World War I."
- B. "For many decades, the BBC had no competition since it held Britain's only broadcasting license, whereas in the United States, the Corporation for Public Broadcasting launched NPR in a broadcasting market already filled with competitors."
- C. "Congress's embrace of publicly funded broadcasting reflected a common belief among US politicians that the role of government was not only to ensure people's safety and liberty but also to enrich people's lives in other ways."
- D. "The goal of the BBC was to support British democracy by promoting an informed citizenry, and US legislators believed that ensuring access to high-quality programming could do the same for democracy in the United States."

ID: 2682b2de Answer

Correct Answer: D

Rationale

Choice D is the best answer because this quotation would be the most effective evidence to include in support of the claim that the Corporation for Public Broadcasting and NPR were inspired by the British Broadcasting System (BBC). The quotation states that the goal of the BBC was to support British democracy and that US legislators believed high-quality programming could accomplish the same goal for democracy in the United States. In other words, US legislators looked to the BBC as a model, taking direct inspiration from it when they created the Corporation for Public Broadcasting, which in turn created NPR.

Choice A is incorrect because this quotation provides historical information about the BBC, not information about the inspiration for the creation of the Corporation for Public Broadcasting and NPR. This quotation, therefore, is irrelevant to the student's claim that the BBC inspired the creation of the Corporation for Public Broadcasting, which in turn created NPR. Choice B is incorrect because this quotation contrasts the lack of competition faced by the BBC with the substantial competition faced by NPR, which has no bearing on the student's claim that the Corporation for Public Broadcasting and NPR were inspired by the BBC. Choice C is incorrect because this quotation focuses on a common belief among US politicians that inspired Congress's embrace of publicly funded broadcasting. The quotation doesn't say anything about the BBC and therefore doesn't support the claim that the BBC inspired Congress to create the Corporation for Public Broadcasting, which in turn created NPR.

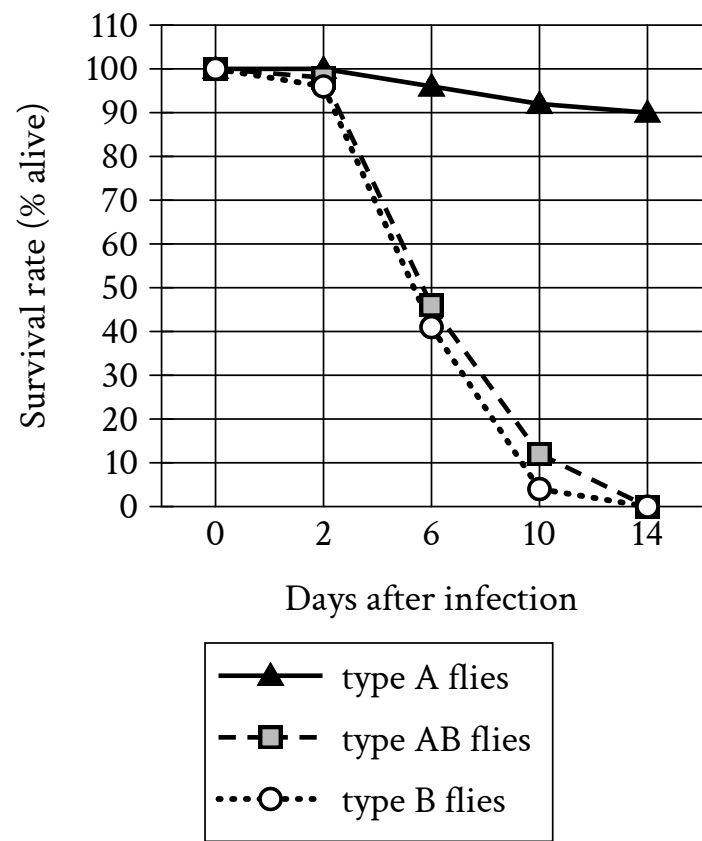
Question Difficulty: Hard



| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e6974bce

Average Survival of Fruit Flies following Infection



In a study of the evolution of *DptA* and *DptB*—*Diptericin* genes encoding antimicrobial peptides that combat pathogens and foster beneficial microbes in fruit flies (*Drosophila*)—researchers assessed *Drosophila melanogaster* resistance to pathogenic infections by *Providencia rettgeri* and *Acetobacter sicerae*, bacteria common in the flies’ environments. Subjects included flies identified by mutations silencing *DptA*, *DptB*, or both *DptA* and *DptB* (termed types A, B, and AB, respectively). In conjunction with the observation that resistance to *P. rettgeri* correlates with *DptA* activity but is not significantly affected by *DptB* activity, data in the graph of survival rates post-*A. sicerae* infection suggest that \_\_\_\_\_

- Which completion of the text is best supported by data in the graph?
- A. *DptA* confers defense against *A. sicerae* regardless of the presence of *DptB*.
  - B. *DptB* protects against only one bacteria species, whereas *DptA* protects against multiple species.
  - C. *DptB* may have developed as a specific defense against *A. sicerae*.
  - D. defense against *A. sicerae* is strongest when both *DptA* and *DptB* are present.

Correct Answer: C

#### Rationale

Choice C is the best answer because it most logically completes the text based on supporting data in the graph. The text indicates that in the fly *D. melanogaster*, *DptA* and *DptB* are genes that encode peptides that both fight pathogens and promote beneficial microbes. Researchers tested *D. melanogaster*'s resistance to *P. rettgeri* and *A. sicerae* bacteria based on which variation of the peptide-encoding gene the flies exhibit: *DptA* silenced (referred to as type A), *DptB* silenced (type B), or both silenced (type AB). The text also indicates that resistance to *P. rettgeri* correlates with *DptA* activity but not with *DptB* activity (which would manifest as type B flies surviving at a higher rate than other fly types when exposed to *P. rettgeri*). The graph shows the post-*A. sicerae* infection results, which indicate that *DptB* activity was most strongly associated with survival, whereas *DptA* activity was not (manifesting in the graph as the type A flies having greater survival rates than the other fly types). In other words, when *DptA* activity was silenced, the flies showed relatively high survival rates, but when *DptB* activity was silenced, whether on its own or in conjunction with *DptA* activity being silenced, survival rates were low, suggesting that *DptB* may have developed as a specific defense against *A. sicerae*.

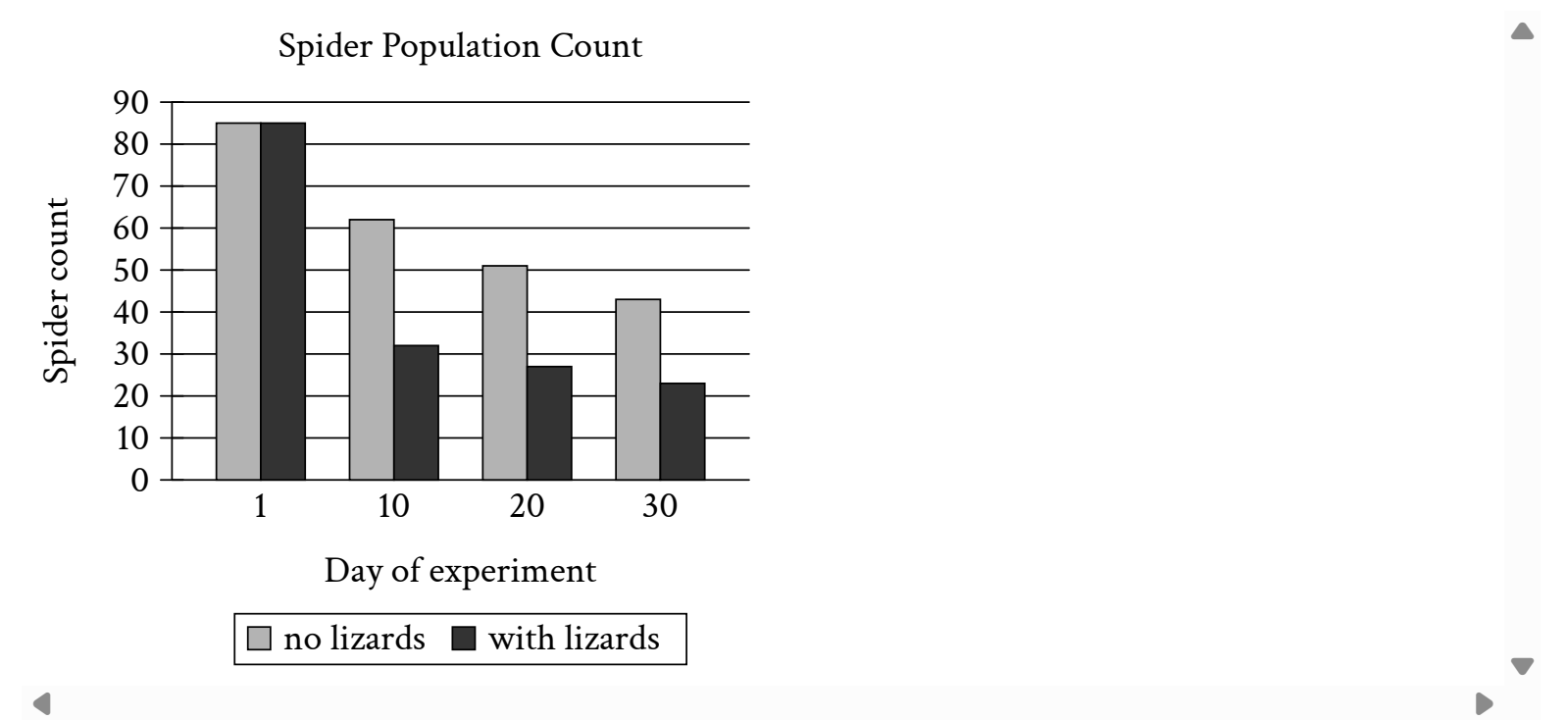
Choice A is incorrect. The graph suggests that *DptA* activity is associated with a low rate of survival, not a high one. Furthermore, the graph shows results for flies where *DptA* alone was silenced, *DptB* alone was silenced, and both were silenced and thus does not show any flies with activity in both *DptA* and *DptB*, which would be necessary to determine whether *DptA* conferred defense against *A. sicerae* in the presence of *DptB*. Choice B is incorrect. Only two bacteria species were considered in the text: *P. rettgeri* and *A. sicerae*. The text and graph taken together suggest that activity in *DptA* is associated with resistance to *P. rettgeri* while *DptB* activity is not, and that *DptB* activity is associated with resistance to *A. sicerae* while *DptA* is not. There is no further information to suggest one genetic type confers resistance to a greater number of pathogens than the other. Choice D is incorrect. The graph does not address flies with activity in both *DptA* and *DptB*. All flies represented in the graph had one or both of *DptA* and *DptB* silenced, or inactive.

Question Difficulty: Hard

Question ID 55949247

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 55949247



To investigate the effect of lizard predation on spider populations, a student in a biology class placed spiders in two enclosures, one with lizards and one without, and tracked the number of spiders in the enclosures for 30 days. The student concluded that the reduction in the spider population count in the enclosure with lizards by day 30 was entirely attributable to the presence of the lizards.

Which choice best describes data from the graph that weaken the student’s conclusion?

- A. The spider population count was the same in both enclosures on day 1.
- B. The spider population count also substantially declined by day 30 in the enclosure without lizards.
- C. The largest decline in spider population count in the enclosure with lizards occurred from day 1 to day 10.
- D. The spider population count on day 30 was lower in the enclosure with lizards than in the enclosure without lizards.

ID: 55949247 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it describes data from the graph that weaken the student’s conclusion about the reduction in the spider population in the enclosure with lizards. The graph shows that the enclosure with lizards and the enclosure without lizards each began with about 85 spiders, and that the number of spiders in each enclosure fell over the 30 days of the study. The

student's claim is that the reduction in spiders in the enclosure with lizards is "entirely attributable to the presence of the lizards," meaning that the spider population wouldn't have declined except for the presence of the lizards. This claim is weakened, however, by the fact that the enclosure without lizards also saw a substantial reduction in the number of spiders. Since the number of spiders fell in the enclosure without lizards as well as in the enclosure with lizards, there must be some other factor than just the presence of the lizards that contributed to the reduction in the spider population.

Choice A is incorrect because the fact that the two enclosures started with the same number of spiders is irrelevant to the claim that the reduction in spider population by day 30 in the enclosure with lizards can be entirely attributed to the lizards. Choice C is incorrect because the fact that the spider population in the enclosure with lizards fell more between days 1 and 10 than in other periods has nothing to do with the student's claim that the reduction in spiders in that enclosure by day 30 can be entirely attributed to the lizards. Choice D is incorrect. Although it's true that on day 30 the spider population was lower in the enclosure with lizards than in the enclosure without lizards, this fact doesn't weaken the student's claim that the reduction in the spider population in the enclosure with lizards can be entirely attributed to the lizards. Indeed, the lower spider population in the enclosure with lizards suggests that the lizards are contributing to the reduction in the spider population, though the fact that the spider population also fell substantially in the other enclosure means that the lizards aren't the only cause of the reduction.

Question Difficulty: Hard

Question ID 4252b950

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 4252b950

Psychologists Dacher Keltner and Jonathan Haidt have argued that experiencing awe—a sensation of reverence and wonder typically brought on by perceiving something grand or powerful—can enable us to feel more connected to others and thereby inspire us to act more altruistically. Keltner, along with Paul K. Piff, Pia Dietze, and colleagues, claims to have found evidence for this effect in a recent study where participants were asked to either gaze up at exceptionally tall trees in a nearby grove (reported to be a universally awe-inspiring experience) or stare at the exterior of a nearby, nondescript building. After one minute, an experimenter deliberately spilled a box of pens nearby.

Which finding from the researchers’ study, if true, would most strongly support their claim?

- A. Participants who had been looking at the trees helped the experimenter pick up significantly more pens than did participants who had been looking at the building.
- B. Participants who helped the experimenter pick up the pens used a greater number of positive words to describe the trees and the building in a postexperiment survey than did participants who did not help the experimenter.
- C. Participants who did not help the experimenter pick up the pens were significantly more likely to report having experienced a feeling of awe, regardless of whether they looked at the building or the trees.
- D. Participants who had been looking at the building were significantly more likely to notice that the experimenter had dropped the pens than were participants who had been looking at the trees.

ID: 4252b950 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a finding that, if true, would most strongly support the researchers’ claim that they found evidence that experiencing awe can make people feel more connected to others and thus more likely to behave altruistically (with beneficial and unselfish concern for others). According to the text, the researchers tested for this effect by first having participants look at either something known to be awe-inspiring (very tall trees) or something ordinary (a plain building) and then purposely spilling pens near the participants. The finding that participants who had looked at the trees helped pick up significantly more pens than did participants who had looked at the building would support the researchers’ claim by demonstrating that the people who had experienced awe behaved more altruistically when the experimenter needed help than the other participants did.

Choice B is incorrect because a finding about helpful participants using positive words to describe the trees and the building after the experiment was over wouldn’t have any bearing on the researchers’ claim that experiencing awe increases altruistic behavior. The text doesn’t address the use of positive words to describe things or suggest any connection between using such words and having experienced awe, so that behavior wouldn’t serve as evidence that experiencing awe played a role in promoting helpful behavior. Choice C is incorrect because a finding that participants who didn’t help the experimenter were significantly more likely than others to report having experienced awe whether they had looked at the building or the trees would weaken the researchers’

claim that experiencing awe increases altruistic behavior by suggesting that the opposite might be true—that experiencing awe is in fact linked to choosing not to act in a way that benefits someone else. Choice D is incorrect because a finding about participants noticing that the experimenter had dropped the pens wouldn't have any bearing on the researchers' claim about people behaving altruistically. Being aware of a challenge or problem isn't necessarily beneficial on its own and isn't the same as offering help, so the finding wouldn't support the idea that experiencing awe increases altruistic behavior.

Question Difficulty: Hard

Question ID de91be7b

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: de91be7b

| Land Area Covered by Native Flowering Plants at a Site in Antarctica |                                         |                                         |                                                    |
|----------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------------------|
| Species                                                              | Area covered in 2009 (in square meters) | Area covered in 2018 (in square meters) | Percent increase in area covered from 2009 to 2018 |
| <i>Deschampsia antarctica</i>                                        | 1,230                                   | 1,576                                   | 28%                                                |
| <i>Colobanthus quitensis</i>                                         | 6.9                                     | 10.7                                    | 55%                                                |

The only flowering plant species native to Antarctica, *Colobanthus quitensis* and *Deschampsia antarctica* grow in places where the earth remains free of ice for much of the year. Botanist Niccoletta Cannone wondered how the warming of Antarctica’s climate in recent years had affected these species, so she visited a site in Antarctica, first in 2009 and later in 2018, to count the number of plants growing there. Cannone found that the area of land covered by the two species had significantly expanded during the nine-year period. While both species likely benefited from warming temperatures, *Colobanthus quitensis* \_\_\_\_\_

- Which choice most effectively uses data from the table to complete the comparison?
- A. suppressed the growth of *Deschampsia antarctica*, which covered a smaller area of land in 2018 than it had in 2009.
  - B. saw a greater expansion than *Deschampsia antarctica* did, increasing the area of land it covered by more than half.
  - C. showed a greater increase in the average size of individual plants than *Deschampsia antarctica* did.
  - D. covered land newly freed from ice at a rate 55% faster than that of *Deschampsia antarctica*.

ID: de91be7b Answer

Correct Answer: B

Rationale

Choice B is the best answer because it most effectively uses data from the table to complete the comparison of how *Colobanthus quitensis* benefited from warming temperatures with how *Deschampsia antarctica* benefited from them. The table shows the land area covered by these two plant species at a site in Antarctica. According to the table, *Colobanthus quitensis* increased the area it covered by 55% from 2009 to 2018, whereas *Deschampsia antarctica* increased the area it covered by 28% during the same period. It therefore follows that *Colobanthus quitensis* saw a greater expansion than *Deschampsia antarctica* did and that *Colobanthus quitensis* increased the area of land it covered by more than half.

Choice A is incorrect because according to the table, *Deschampsia antarctica* covered 1,230 square meters of land in 2009 and 1,576 square meters of land in 2018. *Deschampsia antarctica* therefore covered a larger, not a smaller, area of land in 2018 than in 2009. Moreover, there’s no information in the text or the table that suggests that one species of the plant suppressed the other.

Choice C is incorrect because it inaccurately describes the data in the table. The table shows the land area covered by *Colobanthus quitensis* and *Deschampsia antarctica* and the percent increase in area covered by the two species from 2009 to 2018, not the average size of individual plants belonging to the two species. The data in the table therefore can't be used to make a comparison of the increase in individual plants' average size. Choice D is incorrect because the table shows the land area covered by *Colobanthus quitensis* and *Deschampsia antarctica* and the percent increase in area covered by the two species from 2009 to 2018, not the rate at which the species increased the area they covered. Moreover, there's nothing in the table or the text that suggests that the areas covered by the two species were newly freed from ice.

Question Difficulty: Hard

# Question ID 7a81af3c

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7a81af3c

Jan Gimsa, Robert Sleight, and Ulrike Gimsa have hypothesized that the sail-like structure running down the back of the dinosaur *Spinosaurus aegyptiacus* improved the animal’s success in underwater pursuits of prey species capable of making quick, evasive movements. To evaluate their hypothesis, a second team of researchers constructed two battery-powered mechanical models of *S. aegyptiacus*, one with a sail and one without, and subjected the models to a series of identical tests in a water-filled tank.

- Which finding from the model tests, if true, would most strongly support Gimsa and colleagues’ hypothesis?
- A. The model with a sail took significantly less time to complete a sharp turn while submerged than the model without a sail did.
  - B. The model with a sail displaced significantly more water while submerged than the model without a sail did.
  - C. The model with a sail had significantly less battery power remaining after completing the tests than the model without a sail did.
  - D. The model with a sail took significantly longer to travel a specified distance while submerged than the model without a sail did.

ID: 7a81af3c Answer

Correct Answer: A

Rationale

Choice A is the best answer. This finding would most strongly support the hypothesis. The hypothesis is that the sail improved the dinosaur’s ability to chase quick, evasive prey. This finding suggests that the sail helped the dinosaur make sharp turns more quickly, which supports that hypothesis.

Choice B is incorrect. This finding wouldn’t necessarily support the hypothesis. The hypothesis is that the sail improved the dinosaur’s ability to chase quick, evasive prey. It’s unclear how the sail displacing more water would relate to that hypothesis—it doesn’t seem to be relevant. Choice C is incorrect. This finding wouldn’t necessarily support the hypothesis. The hypothesis is that the sail improved the dinosaur’s ability to chase quick, evasive prey. It’s unclear how the difference in battery power between the models would relate to that hypothesis—it doesn’t seem to be relevant. Choice D is incorrect. This finding would actually weaken the hypothesis. The hypothesis is that the sail improved the dinosaur’s ability to chase quick, evasive prey. This finding suggests that the sail slowed the dinosaur down—which would probably make it worse at catching quick, evasive prey.

Question Difficulty: Hard

Question ID c88583a4

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: c88583a4

Percentage of Available Eggs Eaten by Cane Toad Tadpoles

| Amphibian species (common name) | Percentage of eggs eaten | Native to Australia | Produces bufadienolide |
|---------------------------------|--------------------------|---------------------|------------------------|
| Little red tree frog            | 1%                       | yes                 | no                     |
| Cane toad                       | 90%                      | no                  | yes                    |
| Short-footed frog               | 7%                       | yes                 | no                     |
| Striped burrowing frog          | 10%                      | yes                 | no                     |
| Dainty green tree frog          | 1%                       | yes                 | no                     |

Native to Latin America, the cane toad was introduced to Australia in the 1930s. In recent decades, tadpoles in the Australian population have been shown to consume eggs of their own species. A 2022 study showed that when presented with cane toad eggs as well as eggs of native Australian amphibians, cane toad tadpoles disproportionately consumed eggs of their own species. This behavior results from their attraction to bufadienolide, a chemical produced by the eggs of cane toads but not by the eggs of native amphibians. However, using data from this study, a student wishes to argue that the presence of bufadienolide doesn't entirely explain the cane toad tadpoles' preference for certain eggs over others.

Which choice best describes data from the table that support the student's argument?

- A. The tadpoles consumed a higher percentage of the striped burrowing frog eggs than they did of the eggs of the dainty green tree frog.
- B. The tadpoles left a certain percentage of the eggs of each of the five species unharmed, thus ultimately allowing them to hatch.
- C. The tadpoles consumed a lower percentage of the short-footed frog eggs than they did of the eggs of their own species.
- D. The tadpoles consumed the same percentage of the dainty green tree frog eggs as they did of the little red tree frog eggs.

ID: c88583a4 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the table to support the student's argument about the role of bufadienolide in the egg preferences of cane toad tadpoles. For each of five amphibian species included in the 2022 study, the table gives the percentage of available eggs that the cane toad tadpoles ate. According to the table, the tadpoles ate 10% of striped burrowing frog eggs and 1% of dainty green tree frog eggs, which suggests a preference for striped burrowing frog eggs over dainty green tree frog eggs. The table also indicates that neither of these species' eggs produces bufadienolide. Thus, these

data suggest that something other than the presence or absence of bufadienolide is needed to adequately explain the tadpoles' egg preferences.

Choice B is incorrect. Although the table shows that for each of the five amphibian species, the cane toad tadpoles ate less than 100% of that species' eggs, which demonstrates that the tadpoles did indeed leave some eggs for each species unharmed, this fact alone is irrelevant to the tadpoles' preferences for some species' eggs over other species' eggs. Choice C is incorrect. Although the table indicates that the cane toad tadpoles ate 90% of the cane toad eggs and 7% of the short-footed frog eggs, which suggests that they prefer cane toad eggs over short-footed frog eggs, the table also indicates that cane toad eggs produce bufadienolide, whereas short-footed frog eggs do not. Therefore, these data are not sufficient to exclude that bufadienolide alone could explain the tadpoles' preference for some species' eggs over other species' eggs. Choice D is incorrect. Although the table shows that for both dainty green tree frog eggs and little red tree frog eggs, the cane toad tadpoles ate 1% of those species' eggs, it also indicates that neither produces bufadienolide. Thus, these data alone don't indicate bufadienolide's role in the tadpoles' egg preferences.

Question Difficulty: Hard

# Question ID 2bedb5ca

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 2bedb5ca

A student performs an experiment testing her hypothesis that a slightly acidic soil environment is more beneficial for the growth of the plant *Brassica rapa parachinensis* (a vegetable commonly known as choy sum) than a neutral soil environment. She plants sixteen seeds of choy sum in a mixture of equal amounts of coffee grounds (which are highly acidic) and potting soil and another sixteen seeds in potting soil without coffee grounds as the control for the experiment. The two groups of seeds were exposed to the same growing conditions and monitored for three weeks.

Which finding, if true, would most directly weaken the student’s hypothesis?

- A. The choy sum planted in the soil without coffee grounds were significantly taller at the end of the experiment than the choy sum planted in the mixture of soil and coffee grounds.
- B. The choy sum grown in the soil without coffee grounds weighed significantly less at the end of the experiment than the choy sum grown in the mixture of soil and coffee grounds.
- C. The choy sum seeds planted in the soil without coffee grounds sprouted significantly later in the experiment than did the seeds planted in the mixture of soil and coffee grounds.
- D. Significantly fewer of the choy sum seeds planted in the soil without coffee grounds sprouted plants than did the seeds planted in the mixture of soil and coffee grounds.

ID: 2bedb5ca Answer

Correct Answer: A

Rationale

Choice A is the best answer because it describes an experimental outcome that would most directly weaken the student’s hypothesis. According to the text, the student hypothesizes that *Brassica rapa parachinensis* (choy sum) will benefit more from acidic soil than it will from neutral soil. The text then explains that the student planted 16 choy sum seeds in potting soil with coffee grounds added to increase acidity and another 16 seeds in soil without coffee grounds as a control (a group identical to the experimental group except for the experimental modification being tested). If the hypothesis were correct, the plants in the more acidic soil-and-coffee-grounds mixture would grow faster than those in the control group. However, choice A proposes a scenario in which the plants in soil without coffee grounds were “significantly taller” than those in the more acidic mixture—an outcome that weakens the hypothesis that higher acidity is beneficial to the plants’ growth.

Choice B is incorrect. If the choy sum planted in the neutral soil produced less plant matter and therefore weighed less than the choy sum planted in the acidic soil-and-coffee-grounds mixture, this finding would strengthen the student’s hypothesis, not weaken it. Choice C is incorrect. If seeds planted in neutral soil (without coffee grounds) sprouted significantly later than seeds planted in the acidic soil-and-coffee-grounds mixture, this finding would strengthen, not weaken, the student’s hypothesis that acidic soil benefits choy sum. Choice D is incorrect. If seeds planted in the neutral soil (without coffee grounds) sprouted significantly fewer plants than seeds planted in the acidic soil-and-coffee-grounds mixture did, this finding would strengthen, not weaken, the student’s hypothesis that choy sum benefits from acidic soil.



# Question ID e994ae01

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e994ae01

*The Post Office* is a 1912 play by Rabindranath Tagore, originally written in Bengali. The character Amal is a young boy who imagines that the people he sees passing the window of his home are carefree even when engaged in work or chores, as is evident when he says to the daughter of a flower seller, \_\_\_\_\_

Which quotation from *The Post Office* most effectively illustrates the claim?

- A. "I see, you don't wish to stop; I don't care to stay on here either."
- B. "Oh, flower gathering? That is why your feet seem so glad and your anklets jingle so merrily as you walk."
- C. "I'll pay when I grow up—before I leave to look for work out on the other side of that stream there."
- D. "Wish I could be out too. Then I would pick some flowers for you from the very topmost branches right out of sight."

ID: e994ae01 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it most effectively illustrates the claim that Amal imagines the people he sees are carefree even when engaged in work. In the quotation, Amal observes that the flower seller's daughter is "flower gathering," or working, as the text indicates. Moreover, Amal notes that the daughter's feet "seem so glad" and her "anklets jingle so merrily," suggesting that Amal believes that the flower seller's daughter is cheerful.

Choice A is incorrect because the quotation makes no observation about the cheerful mood of the flower seller's daughter. Choice C is incorrect because the quotation discusses how Amal envisions his future, not the feelings of the flower seller's daughter. Choice D is incorrect because the quotation discusses Amal's wishes, not the feelings of the flower seller's daughter.

Question Difficulty: Hard

Question ID 4811f361

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 4811f361

Juvenile Plants Found Growing on Bare Ground and in Patches of Vegetation for Five Species

| Species             | Bare ground | Patches of vegetation | Total | Percent found in patches of vegetation |
|---------------------|-------------|-----------------------|-------|----------------------------------------|
| <i>T. moroderi</i>  | 9           | 13                    | 22    | 59.1%                                  |
| <i>T. libanitis</i> | 83          | 120                   | 203   | 59.1%                                  |
| <i>H. syriacim</i>  | 95          | 106                   | 201   | 52.7%                                  |
| <i>H. squamatum</i> | 218         | 321                   | 539   | 59.6%                                  |
| <i>H. stoechas</i>  | 11          | 12                    | 23    | 52.2%                                  |

Alicia Montesinos-Navarro, Isabelle Storer, and Rocío Perez-Barrales recently examined several plots within a diverse plant community in southeast Spain. The researchers calculated that if individual plants were randomly distributed on this particular landscape, only about 15% would be with other plants in patches of vegetation. They counted the number of juvenile plants of five species growing in patches of vegetation and the number growing alone on bare ground and compared those numbers to what would be expected if the plants were randomly distributed. Based on these results, they claim that plants of these species that grow in close proximity to other plants gain an advantage at an early developmental stage.

Which choice best describes data from the table that support the researchers’ claim?

- A. For all five species, less than 75% of juvenile plants were growing in patches of vegetation.
- B. The species with the greatest number of juvenile plants growing in patches of vegetation was *H. stoechas*.
- C. For *T. libanitis* and *T. moroderi*, the percentage of juvenile plants growing in patches of vegetation was less than what would be expected if plants were randomly distributed.
- D. For each species, the percentage of juvenile plants growing in patches of vegetation was substantially higher than what would be expected if plants were randomly distributed.

ID: 4811f361 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it provides the most direct support from the table for the claim that the plants growing in close proximity to other plants gained an advantage at an early developmental stage. The table shows the total number of juvenile plants from five species that were found growing on bare ground and in patches of vegetation as well as the percentage of the total number of each species that were growing in patches of vegetation. For each of the five species, more than 50% of the juvenile plants were growing in patches of vegetation. The text notes, however, that a random distribution of plants across the landscape should result in only about 15% of the plants being found in patches of vegetation. In other words, for each of the five

species, the percentage of juvenile plants found growing in patches of vegetation was substantially higher than could be explained by chance alone. This finding supports the claim in the text: if plants growing in patches are overrepresented among plants that have survived to the juvenile stage, as the data show they are, then it suggests that it's advantageous for plants at an early stage of development to grow in patches of vegetation.

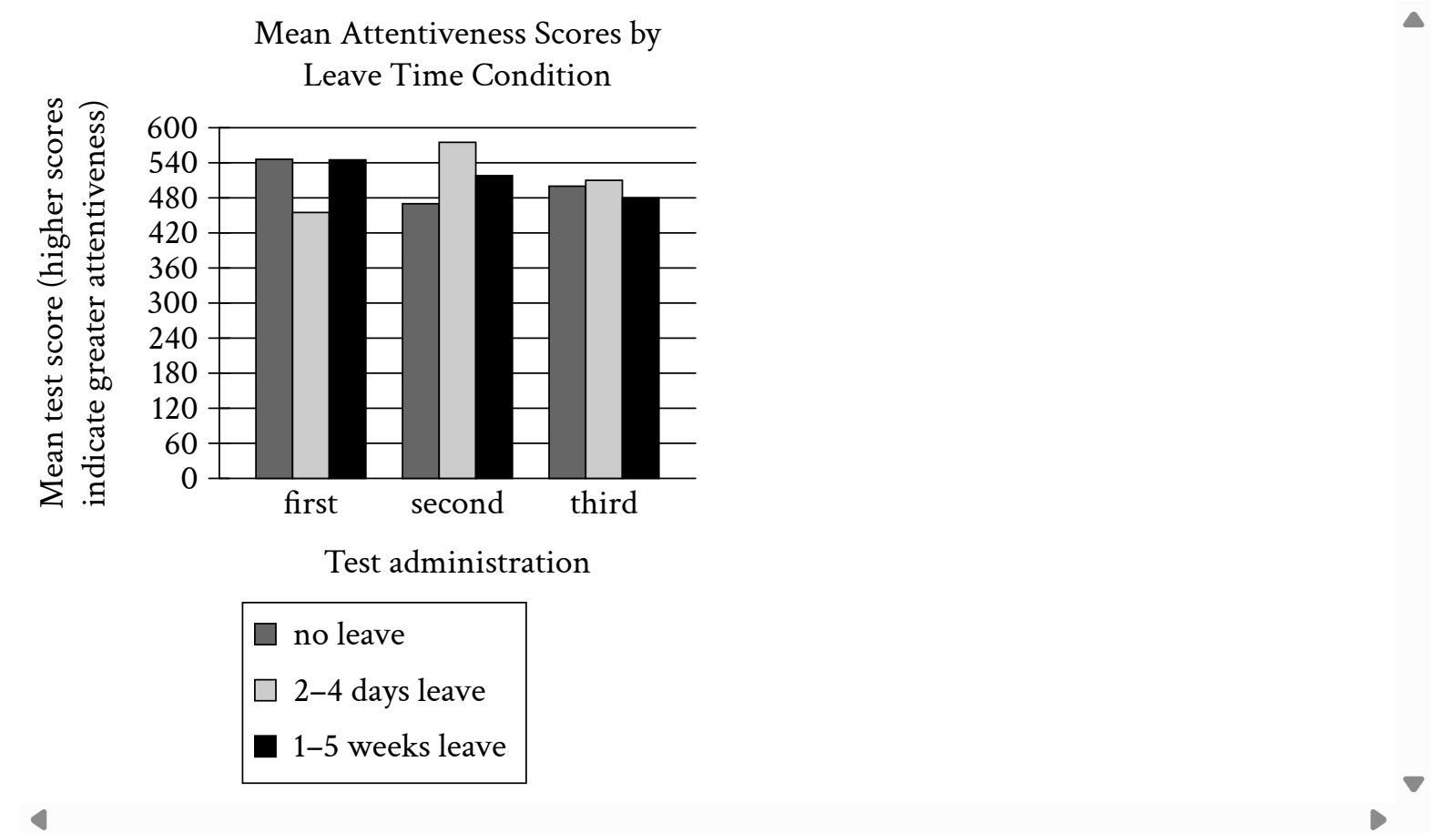
Choice A is incorrect because the statement that less than 75% of juvenile plants were found growing in patches of vegetation, while true, doesn't clearly support the claim that the plants growing in close proximity to other plants gained an advantage at an early developmental stage. Saying that less than 75% of plants were found in patches doesn't indicate how the percentage growing in patches compares with the percentage that would be expected to grow in patches on the basis of chance alone, which is the information necessary to evaluate whether the claim in the text has support in the table. Put another way, if the percentage of plants found growing in patches was 15% or less, it would be true that less than 75% were found in patches, but the data would in fact weaken the claim in the text, not strengthen it, since the data would show that growing in patches wasn't advantageous. Choice B is incorrect because only 12 plants of this species were found growing in patches, which was the lowest number of any species, not the greatest number. Additionally, even if it were true that this species had the greatest number of plants growing in patches, the finding would be irrelevant to the claim that plants of all five species gained an advantage by growing in close proximity to other plants. Choice C is incorrect because 59.1% of the plants of these species were found growing in patches, which is a far greater percentage, not a lower percentage, than what would be expected if plants were randomly distributed (around 15%). Additionally, if it were true that the percentage of plants growing in patches was lower for these species than what would be expected from chance alone, that finding would weaken, not strengthen, the claim that growing in patches is advantageous.

Question Difficulty: Hard

Question ID 20762e01

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 20762e01



To investigate potential cognitive benefits of taking leave from work, psychologist Jan Packer and colleagues conducted a six-month study of Australian university staff members who took no leave from work during the study, took 2–4 days of leave, or took 1–5 weeks of leave. Tests of attentiveness were administered to participants three times during the study: at random for the no-leave staff, and for the rest, one week before their leave, one week following their return to work, and one week after the second test administration. After analyzing the results, the researchers concluded that longer leave times might not confer a greater cognitive benefit than shorter leave times do.

Which choice best describes data from the graph that support the researchers’ conclusion?

- A. In the second test administration, participants who took 2–4 days of leave had higher average attentiveness scores than did those who took no leave, but in the third test administration, those who took no leave had higher average scores than those who took 1–5 weeks of leave.
- B. In the first test administration, participants who took 2–4 days of leave had lower average attentiveness scores than did those who took 1–5 weeks of leave and those who took no leave.
- C. In both the second and third test administrations, participants who took 2–4 days of leave had higher average attentiveness scores than did participants who took 1–5 weeks of leave.

D. In the second and third test administrations, participants who took 2–4 days of leave had higher average attentiveness scores than did those who took no leave.

**ID: 20762e01 Answer**

Correct Answer: C

Rationale

Choice C is the best answer because it describes data from the graph that support Jan Packer and colleagues' conclusion about the effect of leave time on the attentiveness of university employees. According to the text, the researchers' study design included a group of employees who took no leave, a group who took 2–4 days of leave, and a group who took 1–5 weeks of leave. The participants who took leave were tested for attentiveness one week before their leave (the first test administration), one week after their return to work (the second test administration), and two weeks after their return (the third test administration). The participants who took no leave were tested three times at random. The graph shows that at one week after their return to work, participants who took only 2–4 days of leave had an average attentiveness score of between 540 and 600, while participants who took 1–5 weeks of leave had an average score of between 480 and 540. At two weeks after their return to work, those who took only 2–4 days of leave had an average score of between 480 and 540, while those who took 1–5 weeks of leave had an average score of approximately 480. In other words, the graph shows that on both post-leave testing dates, participants with longer leave times had lower average attentiveness scores than those with shorter leave times. Since attentiveness is an indicator of cognitive functioning, these data confirm Packer and colleagues' conclusion that longer leave times might not confer a greater cognitive benefit than shorter leave times do.

Choice A is incorrect. The graph does show that in the second test administration, participants who took 2–4 days of leave had higher average attentiveness scores than did those who took no leave and also shows that in the third test administration, those who took no leave had higher average scores than those who took 1–5 weeks of leave. But neither of these findings has a direct bearing on the researchers' conclusion, which concerns a comparison of participants who took 2–4 days of leave with those who took 1–5 weeks, rather than a comparison of either group with participants who took no leave. Choice B is incorrect. Although the graph does show that in the first test administration, participants who took 2–4 days of leave had lower average attentiveness scores than did those who took 1–5 weeks of leave and those who took no leave, this test administration occurred before any participants went on leave; therefore, these results have no bearing on the researchers' conclusion about how the amount of leave taken by participants affected their cognitive functioning. Choice D is incorrect. Although the graph does show that in the second and third test administrations, participants who took 2–4 days of leave had higher average attentiveness scores than did those who took no leave, the researchers' conclusion is about the effects of short leave compared with the effects of long leave, not the effects of short leave compared with the effects of no leave. These results are therefore irrelevant to the conclusion.

Question Difficulty: Hard

Question ID a3f08545

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a3f08545

Correlations Between Congestion Ratings and Features of the Crowd in Raters’ Immediate Vicinity

| Crowd feature | Before obstacle | After obstacle | Overall |
|---------------|-----------------|----------------|---------|
| Density       | 0.8592          | 0.7308         | 0.7447  |
| Velocity      | −0.9357         | −0.9518        | −0.8587 |

Researcher Xiaolu Jia and colleagues monitored individuals’ velocity and the surrounding crowd density as a group of study participants walked through a space and navigated around an obstacle. Participants rated how congested it seemed before the obstacle, after the obstacle, and overall, and the researchers correlated those ratings with velocity and density. (Correlations range from −1 to 1, with greater distance from 0 indicating greater strength). The researchers concluded that the correlations with velocity are stronger than those with density.

Which choice best describes data from the table that support the researchers’ conclusion?

- A. The correlation between congestion ratings before the obstacle and density is further from 0 than the correlation between overall congestion rating and velocity is.
- B. The correlation between congestion ratings before the obstacle and velocity is further from 0 than the correlation between congestion overall and velocity is.
- C. For each of the three ratings, the correlation with velocity is negative while the correlation with density is positive.
- D. For each of the three ratings, correlations with velocity are further from 0 than the corresponding correlations with density are.

ID: a3f08545 Answer

Correct Answer: D

Rationale

Choice D is the best answer. The text tells us that the farther the correlation is from 0, the “stronger” it is (doesn’t matter if it’s negative or positive). The table shows that the correlations with velocity are farther from zero than the correlations with density, which supports the conclusion that the correlations with velocity are stronger.

Choice A is incorrect. This choice doesn’t support the conclusion. It makes an “apples to oranges” comparison by comparing density and velocity correlations across features instead of comparing them for each feature. Choice B is incorrect. This choice doesn’t support the conclusion. It doesn’t include the density correlations for comparison. Choice C is incorrect. This choice doesn’t support the conclusion. The text tells us that the farther the correlation is from 0, the “stronger” it is: it doesn’t matter for “strength” whether it’s negative or positive.

Question Difficulty: Hard

# Question ID aa8e7bcb

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: aa8e7bcb

Many insects are iridescent, or have colors that appear to shimmer and change when seen from different angles. Scientists have assumed that this feature helps to attract mates but could also attract predators. But biologist Karin Kjernsmo and a team had the idea that the shifting appearance of colors might actually make it harder for other animals to see iridescent insects. To test this idea, the team put beetle forewings on leaves along a forest path and then asked human participants to look for them. Some of the wings were naturally iridescent. Others were painted with a nonchanging color from the iridescent spectrum, such as purple or blue.

Which finding, if true, would most directly support the team’s idea?

- A. On average, participants found most of the purple wings and blue wings and far fewer of the iridescent wings.
- B. On average, participants found the iridescent wings faster than they found the purple wings or blue wings.
- C. Some participants reported that the purple wings were easier to see than the blue wings.
- D. Some participants successfully found all of the wings on the leaves.

ID: aa8e7bcb Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents the finding that, if true, would most strongly support the research team’s idea about the effect of iridescence, or colors that appear to shimmer and change. The text indicates that although some scientists have assumed that iridescence could attract predators, Kjernsmo’s team wondered if iridescent insects might be harder for other animals to see. The team tested this idea by asking human participants to look for both iridescent beetle wings and beetle wings that weren’t iridescent but that had been painted colors such as purple or blue. If participants located most of the purple or blue wings but far fewer of the iridescent wings, that finding would support the team’s idea since it would suggest that noniridescent wings are easier to see than iridescent wings.

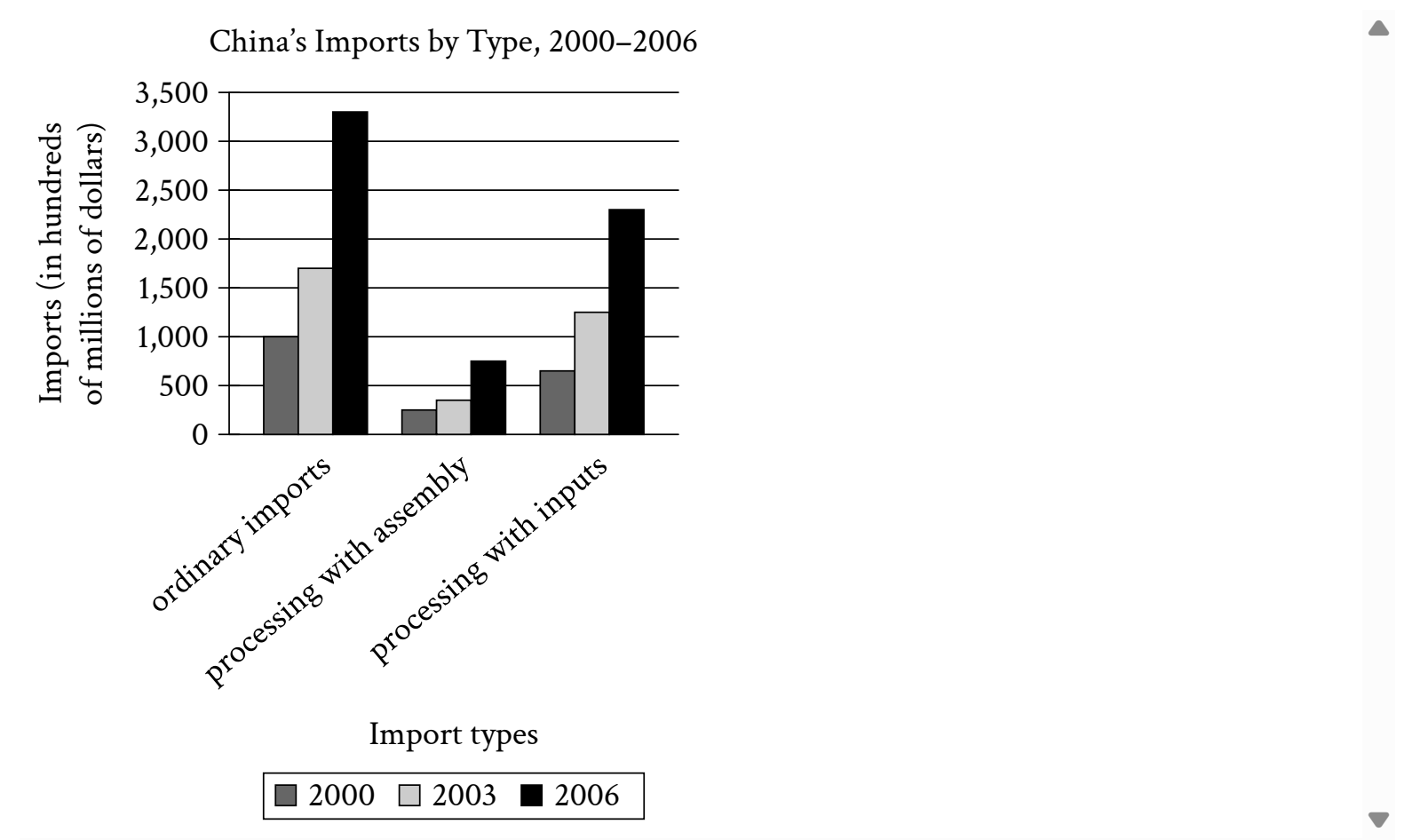
Choice B is incorrect because if participants located the iridescent wings more quickly than the purple or blue wings, that finding would weaken the team’s idea, not support the team’s idea, since it would suggest that the iridescent wings were easier to see than the noniridescent wings. Choice C is incorrect because finding that some participants believed that the purple wings were easier to see than the blue wings would be irrelevant to the team’s idea. The purple and blue wings were both noniridescent, so any difference in how easy those two colors were to see would have nothing to do with the idea that iridescent insects are harder to see than noniridescent insects. Choice D is incorrect because if some participants found all the wings, that wouldn’t support the team’s idea that iridescent insects may be harder to see than noniridescent insects. If anything, this finding might weaken the team’s idea since it could suggest that iridescence had no effect on how difficult the wings were to see.

Question Difficulty: Hard

Question ID da397c6c

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: da397c6c



A student is researching the Chinese government’s 1992 shift to a market economy that emphasizes trade liberalization. One means of trade liberalization involves expanding from ordinary imports into an emphasis on processing imports, which have two types: processing with assembly (in which a firm obtains raw materials from a foreign trading partner without payment and sells the final goods to that partner, charging for assembly) and processing with inputs (in which a firm expends capital to buy raw materials from a trading partner, processes them into final goods, and sells those goods to whichever trading partner it chooses). The student asserts that while initial efforts at trade liberalization were shaped by Chinese firms’ limited capital, this situation resolved during the 2000s.

Which choice best describes data from the graph that support the student’s assertion?

- A. Processing imports with inputs were greater than both ordinary imports and processing imports with assembly in 2006.
- B. From 2000 to 2006, processing imports with inputs rose much more sharply than processing imports with assembly did.
- C. From 2000 to 2006, neither processing imports with inputs nor processing imports with assembly were greater than ordinary imports.

D. Processing imports with assembly were greater in 2006 than processing imports with inputs in 2000.

ID: da397c6c Answer

Correct Answer: B

Rationale

Choice B is the best answer because it describes data from the graph that best support the student's assertion that initial efforts at trade liberalization in China were shaped by firms having limited capital (assets available for use) and that this situation resolved during the 2000s. The text explains that an approach to trade liberalization involves engaging in processing imports, one type of which doesn't require payment to a trade partner (processing with assembly) and one type of which requires upfront payment to a trade partner for raw materials (processing with inputs). The graph, which presents China's imports for ordinary imports and both types of processing imports in the years 2000, 2003, and 2006, shows that while processing imports with assembly rose from about 250 hundred million dollars in 2000 to about 750 hundred million dollars in 2006, processing imports with inputs rose much more sharply, increasing from approximately 650 hundred million dollars in 2000 to about 2,300 hundred million dollars in 2006. Because processing with inputs requires firms to pay for materials (expending capital) and processing with assembly doesn't, the sharper rise in processing imports with inputs suggests that Chinese firms' assets—and thus their ability to engage in that type of processing imports—were relatively limited in (and before) 2000 and then substantially increased from 2000 to 2006. In other words, the data suggest that the situation of having limited capital resolved during the 2000s.

Choice A is incorrect because the graph indicates that ordinary imports were greater than both types of processing imports in 2006, not that processing imports with inputs were greater than ordinary imports and processing imports with assembly that year. Choice C is incorrect because the observation that ordinary imports were greater than both types of processing imports in 2000, 2003, and 2006 doesn't address a change within any type of imports from 2000 to 2006, and an indication of a change in that period that might be related to the availability of assets is needed to support the assertion that the situation of having limited capital resolved during the 2000s. Choice D is incorrect because the fact that processing imports with assembly were greater at the end of the period from 2000 to 2006 than processing imports with inputs were at the start of the same period doesn't address a change within either type of imports during the period, and an indication of such a change that might be related to the availability of assets is needed to support the assertion that the situation of having limited capital resolved during the 2000s.

Question Difficulty: Hard

Question ID c8897261

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: c8897261

ALSOL is a microcredit program in Mexico that makes small loans to female entrepreneurs who lack the collateral and credit history to secure financing from conventional banks. Borrowers use their business proceeds to repay loans in equal weekly installments and incur no penalty for missed payments other than lack of access to larger loans. Economists Gustavo Barboza and Sandra Trejos analyzed ALSOL data and found that rural borrowers, who mostly make and sell handicrafts, miss payments more often than urban borrowers do, partly because they sell their goods less frequently than they could. Barboza and Trejos claim that this behavior reflects strategic decisions that enable rural women to increase their profits per unit sold.

Which finding, if true, would most directly support Barboza and Trejos’s claim?

- A. Many marketplaces require entrepreneurs to pay marketplace operators a fixed percentage of each day’s proceeds in exchange for permission to sell goods there.
- B. Rural entrepreneurs can typically sell their goods for higher prices in cities than in their home areas, but the number of people selling competing goods tends to be higher in cities.
- C. Due to the lower costs they incur, rural entrepreneurs tend to require smaller initial loans than urban entrepreneurs do.
- D. The cost to rural entrepreneurs to bring their goods to towns with marketplaces is high but largely independent of the number of goods they bring.

ID: c8897261 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would most directly support Barboza and Trejos’s claim that rural female entrepreneurs who have received small loans from ALSOL are strategic in selling their goods less frequently than they could, even if it means missing payments. The text explains that borrowers in the ALSOL program use proceeds from their businesses to repay loans in equal weekly payments, with almost no penalty for missed payments. According to the text, Barboza and Trejos found that rural borrowers miss weekly payments in part because they don’t sell their goods as often as they could, a move the researchers claim allows the entrepreneurs to help increase profits for the goods they sell. Finding that the cost of bringing goods to towns with marketplaces is high for rural entrepreneurs but is largely independent of how many goods are brought would support the researchers’ claim: traveling to marketplaces less frequently would mean that a rural entrepreneur spends less on travel overall, and taking a large load of goods to a marketplace for essentially the same cost as taking a small load would allow the entrepreneur to more substantially offset the cost of travel with greater overall sales at the marketplace, resulting in more profit per good sold—even if those profits are earned less frequently and don’t support weekly loan payments.

Choice A is incorrect because the finding that many marketplaces require entrepreneurs to pay the operators of the marketplace a fixed percentage of proceeds to be able to sell goods there wouldn’t explain why rural entrepreneurs strategically choose to sell their goods less frequently than they could in order to increase their profits per unit sold. With a fixed percentage of proceeds due to operators, the amount entrepreneurs have to pay operators would also be fixed regardless of frequency of selling. Choice B is

incorrect because the finding that rural entrepreneurs can usually sell their goods for higher prices in cities than in their local areas but also face higher competition to sell goods in cities wouldn't explain why rural entrepreneurs strategically choose to sell their goods less frequently than they could in order to increase their profits per unit sold. This is because both the higher prices and higher competition in cities would be stable factors—meaning there would be no clear reason for the rural entrepreneurs not to take every available chance to sell their goods in cities and to instead sell their goods in cities only sometimes. Choice C is incorrect because the finding that rural entrepreneurs have lower costs and thus tend to require smaller initial loans than urban entrepreneurs do has no bearing on rural borrowers strategically choosing to sell their goods less frequently than they could specifically to increase their profits per unit sold. The cost of producing goods doesn't depend on the frequency with which an entrepreneur sells those goods, so lower frequency alone wouldn't affect profits, and the initial loan amount is set and has nothing to do with how much profit is earned from each sale.

Question Difficulty: Hard

Question ID 58320829

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 58320829

Simulated Change in Annual Aquifer Input and Irrigation Output if Precipitation Concentration Increases as Climate Models Predict

| Baseline concentration of annual precipitation   | % change in water entering aquifers | % change in surface water used for irrigation | % change in groundwater used for irrigation |
|--------------------------------------------------|-------------------------------------|-----------------------------------------------|---------------------------------------------|
| Precipitation is currently somewhat concentrated | 4.9                                 | 0.4                                           | 0.9                                         |
| Precipitation is currently evenly distributed    | 11.0                                | 9.0                                           | 7.9                                         |

Some climate models for the western United States predict that while total annual precipitation may remain unchanged from the present level, precipitation will become concentrated into fewer but more intense rain and snow events. University of Texas climate scientist Geeta Persad and her colleagues simulated how the amount of water entering aquifers and the amount being used for irrigation purposes would change if this were to occur. Persad and her colleagues concluded that concentration of precipitation into fewer events would result in a higher number of dry days, triggering more irrigation, but that this change in irrigation output is highly sensitive to the baseline concentration of precipitation that currently exists in an area.

Which choice best describes data from the table that support Persad and her colleagues’ conclusion?

- A. If baseline precipitation is somewhat concentrated, the amount of water being used for irrigation will increase 0.4% for surface water and 0.9% for groundwater, whereas the amount of water entering aquifers will increase 11.0% if baseline precipitation is evenly distributed.
- B. If baseline precipitation is somewhat concentrated, water use for irrigation will increase only slightly, whereas it will increase 9.0% for surface water and 7.9% for groundwater if baseline precipitation is evenly distributed.
- C. If baseline precipitation is somewhat concentrated, the amount of water entering aquifers will increase 4.9%, while the amount being used for irrigation will increase 0.4% for surface water and 0.9% for groundwater.
- D. If baseline precipitation is somewhat concentrated, water use for irrigation will decline by a small amount, whereas it will increase 11.0% for surface water and 9.0% for groundwater if baseline precipitation is evenly distributed.

ID: 58320829 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it describes data from the table that support Persad and her colleagues’ conclusion. The text explains that, according to some climate models, precipitation in the western United States will become concentrated into fewer, more intense rain and snow events. According to the text, Persad and her colleagues concluded that more irrigation will

consequently be needed but that the change in irrigation output will be highly sensitive to, or greatly affected by, the baseline concentration of precipitation in an area. This conclusion is supported by data from the researchers' simulations of changes in annual irrigation output in two different scenarios—one in which an area's annual precipitation is already somewhat concentrated and one in which its annual precipitation is evenly distributed. The table shows that if baseline precipitation is somewhat concentrated, water use for irrigation will increase only slightly, whereas if baseline precipitation is evenly distributed, water use for irrigation will increase much more—9.0% for surface water and 7.9% for groundwater. This difference illustrates the researchers' conclusion that the amount of additional water needed for irrigation will vary greatly depending on how concentrated or spread out the annual precipitation in an area already is.

Choice A is incorrect because it compares changes in the amount of water being used for irrigation to changes in the amount of water entering aquifers. Persad and her colleagues' conclusion doesn't focus on changes to the amount of water entering aquifers; rather, the researchers' conclusion focuses on changes to irrigation output relative to how concentrated or spread out the annual precipitation in an area is. Choice C is incorrect because it supports only part of Persad and her colleagues' conclusion. According to the text, the researchers concluded that the concentration of precipitation into fewer events will trigger more irrigation but that this change in irrigation output will be highly sensitive to an area's baseline concentration of annual precipitation. The data in this choice support the idea that more irrigation will be needed, but to support the rest of the researchers' conclusion, additional data from the table are required to show that the increases in water use for irrigation will vary depending on how concentrated or spread out the annual precipitation in an area already is. Choice D is incorrect because data in the table indicate no declines in water use for irrigation, showing only increases in the form of positive values.

Question Difficulty: Hard

# Question ID 069d7a45

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 069d7a45

*Richard II* is a play from the 1590s by William Shakespeare. Although King Richard has been vanquished by his cousin Henry Bolingbroke, he intimates that he is not entirely ready to show subservience to his cousin, saying, \_\_\_\_\_

Which quotation from *Richard II* most effectively illustrates the claim?

- A. "I have no name, no title,— / No, not that name was given me at the font,— / But 'tis usurp'd:— Alack the heavy day, / That I have worn so many winters out, / And know not now what name to call myself!"
- B. "Alack, why am I sent for to a king, / Before I have shook off the regal thoughts / Wherewith I reign'd? I hardly yet have learn'd / To insinuate, flatter, bow, and bend my knee."
- C. "Still my griefs are mine. / You may my glories and my state depose, / But not my griefs; still am I king of those."
- D. "Am I both priest and clerk? Well then, amen. / God save the King! although I be not he; / And yet, amen, if heaven do think him me."

ID: 069d7a45 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it most effectively presents a quotation that illustrates the claim that Richard intimates he is not entirely ready to show subservience to Bolingbroke. The quotation conveys that Richard has not yet shaken off “the regal thoughts / Wherewith [he] reign’d”—that is, he still feels like a king—and that he has “hardly yet have learn’d / To insinuate, flatter, bow, and bend [his] knee,” directly listing acts of subservience he is not prepared to perform. By stating his unreadiness to behave subserviently while still inhabiting a regal mindset, Richard intimates exactly what the claim describes.

Choice A is incorrect because this quotation centers on Richard’s anguish over the loss of his name and title; it expresses confusion about his identity rather than illustrating that he is not yet prepared to show subservience to Bolingbroke. Choice C is incorrect because in this quotation Richard claims that his griefs remain his own even after his “glories” and “state” have been deposed; it concerns ownership of his suffering and identity rather than any unreadiness to behave subserviently toward Bolingbroke. Choice D is incorrect because the quotation depicts Richard as willing to go along with the assertion of others that Bolingbroke is the rightful king, although God, who in this case serves as an objective arbiter, may have a different opinion on who the rightful king is (“if heaven do think him me”). So the quotation suggests that Richard is willing to behave subserviently even if he thinks he has been wronged; it does not suggest that he is at present unwilling to show subservience.

Question Difficulty: Hard

# Question ID b030788d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: b030788d

“When Dawn Comes to the City” is a 1922 poem by Claude McKay, who immigrated to the United States from the island nation of Jamaica as an adult. The poem conveys McKay’s contrasting feelings about New York City—his adopted home in the US—and his home country: \_\_\_\_\_

Which quotation from “When Dawn Comes to the City” most effectively illustrates the claim?

- A. “A lonely newsboy hurries by, / Humming a recent ditty; / Red streaks strike through the gray of the sky, / The dawn comes to the city [New York City].”
- B. “Dark figures start for work; / I watch them sadly shuffle on, / ’Tis dawn, dawn in New York. / But I would be on the island of the sea, / In the heart of the island of the sea.”
- C. “And the shaggy Nannie goat is calling, calling, calling / From her little trampled corner of the long wide lea / That stretches to the waters of the hill-stream falling / Sheer upon the flat rocks joyously!”
- D. “The tired cars go grumbling by, / The moaning, groaning cars, / And the old milk carts go rumbling by / Under the same dull stars.”

ID: b030788d Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a quotation illustrating the claim that the poem conveys McKay’s contrasting feelings about New York City and Jamaica. McKay first presents a somewhat negative view of New York City, describing watching “dark figures” who “sadly shuffle” to work at dawn, and then indicates that he would instead like to be “in the heart of the island of the sea.”

Choice A is incorrect because the quotation focuses on a description of only one place (New York City, with its “lonely newsboy” and “red streaks” in the sky at dawn) rather than on different feelings about two places. Choice C is incorrect because the quotation focuses on a description of only one place (which isn’t named) rather than on McKay’s different feelings about two places. Choice D is incorrect because though McKay presents a negative image of an unnamed place with “tired cars” that grumble, moan, and groan, and “old milk carts” that rumble by under “dull stars,” the quotation focuses on McKay’s feelings about only one place rather than on different feelings about two places.

Question Difficulty: Hard

Question ID 78d0458a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 78d0458a

Gorgets, or necklaces with large pendants, have been part of the ceremonial attire of tribes from the US Southeast for centuries. One of the oldest examples, the Fairfield Gorget, was found in Fairfield, Missouri, in 1958. Its overall design resembles that of other art from the region during the Mississippian period (900–1600 CE). Yet the image on the gorget is of a jaguar—a species whose range doesn’t extend to Missouri. Jaguar images are common in ancient Mexican art, and Mexico lies squarely in the species’ range. Therefore, some scholars argue that long-distance trade in Mexican art objects brought the imagery to Missouri, where a local artist could have adopted it and incorporated it into the Fairfield Gorget.

Which finding, if true, would most strongly support the underlined explanation?

- A. The Fairfield Gorget is dated not to the Mississippian period but instead to the earlier Woodland period, which ended around 900 CE.
- B. The range of the jaguar is shown to have expanded dramatically after the Mississippian period came to a close around 1600 CE.
- C. An ancient Mexican art object is found at a site that dates to the Mississippian period and is close to where the Fairfield Gorget was found.
- D. Certain works by present-day artists from Southeastern tribes reflect outside cultural influences, including contemporary Mexican art.

ID: 78d0458a Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would most strongly support the underlined explanation that the jaguar imagery on the Fairfield Gorget could have been inspired by art objects brought to Missouri from Mexico. The text describes the Fairfield Gorget as one of the oldest examples of these necklaces, noting that it’s similar to other art from the Mississippian period except for its image of a jaguar. The text goes on to explain that this is unusual because the jaguar’s range didn’t include Missouri. The Fairfield Gorget’s artist likely wouldn’t have encountered a live jaguar, but since such jaguar images were common in ancient Mexican art (and the jaguar’s range did include Mexico), perhaps some of that art inspired the gorget’s artist. Therefore, evidence that an ancient Mexican art object had been found at a site that was close to the Fairfield Gorget in both location and time period would strongly support the explanation that long-distance trade from Mexico took place during the Mississippian period and that jaguar imagery could have reached Missouri by those means.

Choice A is incorrect. The underlined explanation indicates that Mexican artistic influence preceded the creation of the Fairfield Gorget. An artifact from Mexico that appeared in Missouri only after the gorget was created cannot support such a claim. Choice B is incorrect. The underlined explanation pertains to whether the jaguar image on the Fairfield Gorget was suggested to the Mississippian artist who made it by encounters with depictions of jaguars in Mexican art. The appearance of jaguars in Missouri after the Mississippian period cannot provide evidence for such a claim. Choice D is incorrect. The underlined explanation

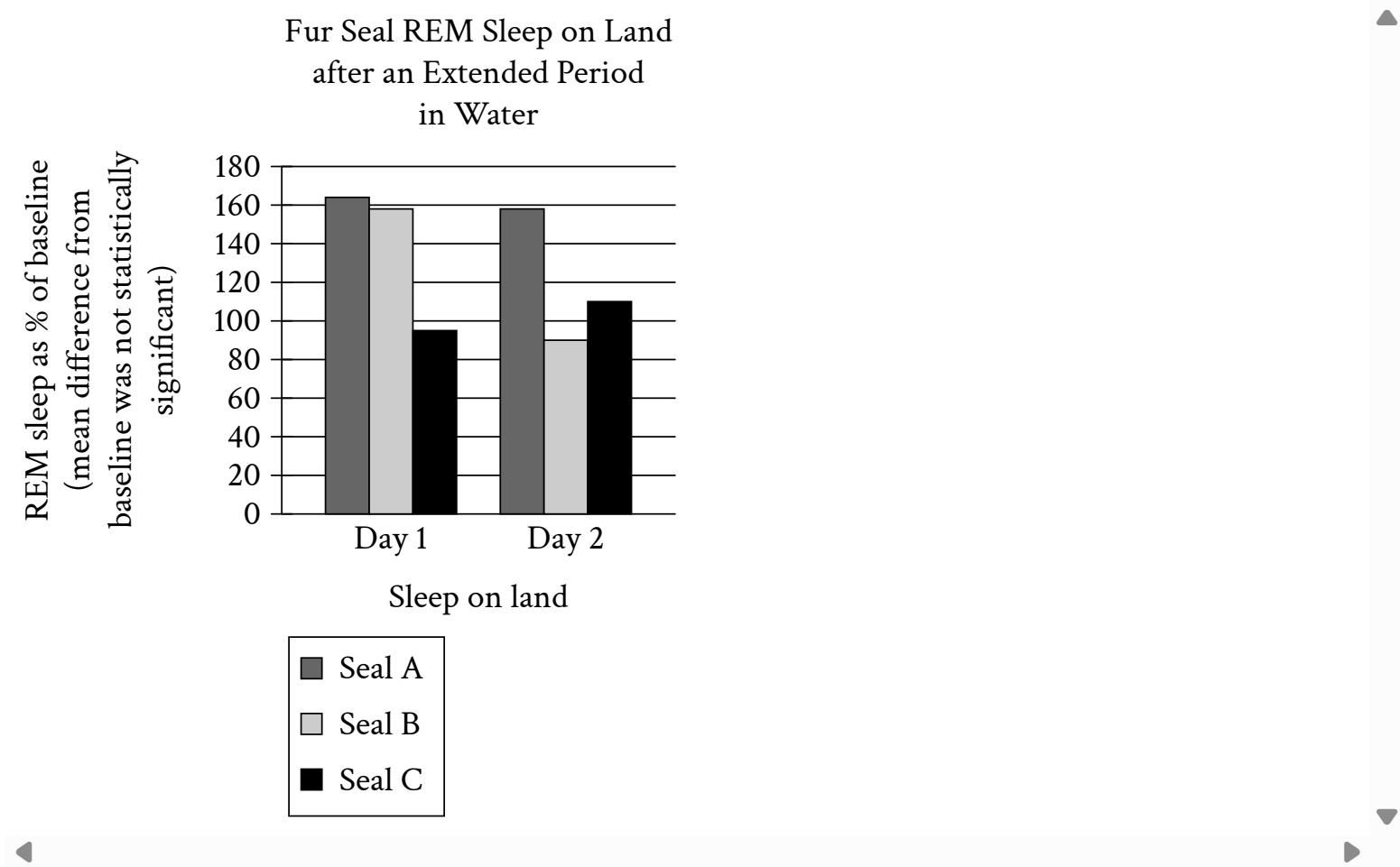
pertains to influence that Mexican art might have had on Mississippian art, restricted to the period from 900 CE to 1600 CE. The actions of contemporary artists cannot provide evidence for centuries-old networks of artistic influence and exchange.

Question Difficulty: Hard

Question ID 83e0e256

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 83e0e256



Research suggests that REM sleep in animals is homeostatically regulated: animals compensate for periods of REM sleep deprivation by increasing subsequent REM sleep. When on land, fur seals get enough REM sleep, but during the weeks they're in the water, they get almost none. In a study of fur seals' sleep habits, researchers recorded the REM sleep (as a percentage of baseline) of fur seals once they had returned to land. They concluded that REM sleep may not be homeostatically regulated in fur seals, citing as evidence the fact that the seals in the study \_\_\_\_\_

- Which choice most effectively uses data from the graph to complete the text?
- A. didn't consistently demonstrate a significant increase in REM sleep after their period of deprivation in the water.
  - B. showed no significant difference between REM sleep after returning to land and REM sleep while in the water.
  - C. didn't show significantly less REM sleep during the second day after returning to land than they did during the first day.
  - D. showed no significant differences from one another in baseline levels of REM sleep.

Correct Answer: A

Rationale

Choice A is the best answer. If REM sleep were homeostatically regulated in fur seals, then all the seals would compensate with REM levels significantly over baseline after going weeks without REM. We'd also expect the seals to maintain those elevated REM levels for some time. Since seals B and C return very quickly to baseline REM levels, this suggests that REM sleep in fur seals may not be regulated homeostatically.

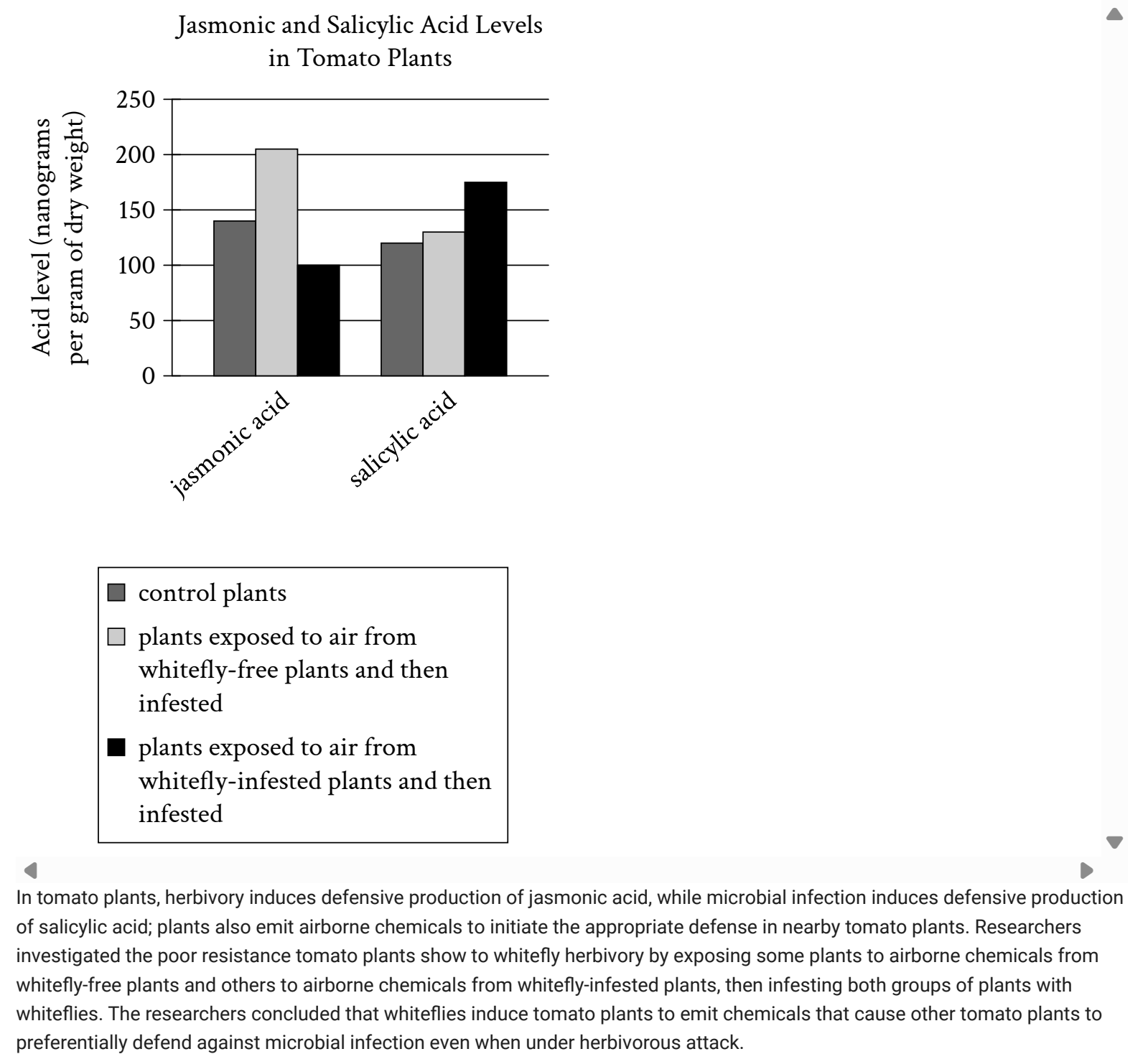
Choice B is incorrect. The graph doesn't depict REM sleep while in the water for the seals in the study. Additionally, we're told fur seals get no REM sleep while in the water, which is significantly different to the values shown in the graph for after they return to land. Choice C is incorrect. This doesn't support the conclusion. If REM sleep were homeostatically regulated in fur seals, then we'd suspect the seals to sustain REM levels well above baseline for a prolonged period in order to compensate for weeks of REM deprivation while in the water. Whether or not there's a reduction in REM sleep from day 1 to day 2 doesn't tell us how REM sleep on those days relates to baseline, which is where our focus should be. Choice D is incorrect. The y-axis of this graph doesn't depict baseline levels of REM sleep, but rather shows REM sleep as a percent of baseline.

Question Difficulty: Hard

Question ID 9dc29fcb

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 9dc29fcb



Which choice best describes data from the graph that support the researchers' conclusion?

- A. When plants exposed to air from whitefly-free plants were infested, they produced more jasmonic acid than did control plants, whereas when plants exposed to air from whitefly-infested plants were infested, they produced less jasmonic acid and more salicylic acid than did control plants.
- B. When plants exposed to air from whitefly-infested plants were infested, they produced less jasmonic acid than salicylic acid, whereas when plants exposed to air from whitefly-free plants were infested, they produced about the same amount of jasmonic acid and salicylic acid.
- C. When plants exposed to air from whitefly-free plants were infested, they produced both jasmonic acid and salicylic acid, whereas when plants exposed to air from whitefly-infested plants were infested, they exclusively produced salicylic acid.
- D. When plants exposed to air from whitefly-infested plants were infested, they produced less jasmonic acid than did control plants, whereas when plants exposed to air from whitefly-free plants were infested, they produced more jasmonic acid and salicylic acid than did control plants.

**ID: 9dc29fcb Answer**

Correct Answer: A

Rationale

Choice A is the best answer because it best describes data from the graph that support the researchers' conclusion about whitefly-induced defenses in tomato plants. According to the text, tomato plants produce airborne chemicals that prompt nearby tomato plants to increase their production of appropriate defensive chemicals, such as jasmonic acid in response to herbivory and salicylic acid in response to microbial infection. The text goes on to indicate that researchers concluded that whiteflies induce tomato plants to emit chemicals that cause nearby plants to defend against microbial infection instead of herbivory from whiteflies. The graph shows that control tomato plants (plants that weren't exposed to any chemicals from nearby tomato plants and weren't subsequently infested with whiteflies) produced about 140 nanograms of jasmonic acid per gram of dry weight and about 120 nanograms of salicylic acid per gram of dry weight, which indicates the baseline levels of these defensive chemicals in tomato plants. The graph also shows that plants exposed to air from whitefly-free plants produced about 205 nanograms of jasmonic acid per gram of dry weight when subsequently infested by whiteflies, which is more than the amount produced by the control plants. This suggests that when infested with whiteflies, tomato plants that weren't previously exposed to air from nearby whitefly-infested plants begin producing higher levels of jasmonic acid to defend against the infestation. Finally, the graph also shows that plants exposed to air from whitefly-infested plants and then subsequently infested by whiteflies produced approximately 100 nanograms of jasmonic acid per gram of dry weight (which is less than control plants did) and approximately 175 nanograms of salicylic acid per gram of dry weight (which is more than control plants did). This suggests that whiteflies cause tomato plants to emit chemical signals that decrease nearby plants' defenses against whitefly herbivory relative to baseline levels and redirect their defenses toward microbial infection, thereby supporting the researchers' conclusion that whiteflies cause tomato plants to emit airborne chemical signals that induce nearby plants to preferentially defend against microbes even when experiencing herbivory from whiteflies.

Choice B is incorrect. Although the graph shows that tomato plants exposed to whitefly-infested plants produced less jasmonic acid than salicylic acid (about 100 nanograms of jasmonic acid per gram of dry weight vs. about 175 nanograms of salicylic acid per gram of dry weight), and although this might suggest that those plants are therefore better defended against microbial attack than against herbivory, this wouldn't be sufficient to conclude that this is the case: without reference to the relative levels of defensive chemicals produced by the plants in the other experimental conditions, it would be impossible to conclude that exposure to air from whitefly-infested plants either induces or diminishes these plants' defenses to different kinds of threats. Furthermore, the graph shows that plants exposed to air from whitefly-free plants produced about 205 nanograms of jasmonic acid per gram of dry weight and about 130 nanograms of salicylic acid per gram of dry weight, not that they produced the same amount of the two acids. Choice C is incorrect because it inaccurately describes the data in the graph. The graph shows that plants in all three conditions produced both jasmonic and salicylic acid, not that plants exposed to air from whitefly-infested plants produce no jasmonic acid at all. Choice D is incorrect. Although the graph shows that plants exposed to air from whitefly-infested plants produced about 100 nanograms of jasmonic acid per gram of dry weight when infested, which is less than the amount produced by control plants (about 140 nanograms per gram of dry weight), and although the graph shows that plants

exposed to air from whitefly-free plants produced about 205 nanograms of jasmonic acid per gram of dry weight when infested (which is more than the amount produced by control plants) and about 130 nanograms of salicylic acid per gram of dry weight (which is more than the approximately 120 nanograms per gram of dry weight produced by control plants), this wouldn't support the researchers' conclusion that plants exposed to air from whitefly-infested plants preferentially defend against microbial infection—that is, that they increase their levels of salicylic acid and decrease their levels of jasmonic acid relative to control plants. Rather, the data would suggest that exposure to air from whitefly-infested plants reduces plants' defenses against herbivory, but these data wouldn't indicate that whiteflies induce plants to redirect their defenses to guard against microbial infection. Furthermore, the data concerning plants exposed to air from whitefly-free plants merely indicate that these plants increase their defenses against both herbivory and microbial infection when infested by whiteflies.

Question Difficulty: Hard

# Question ID f6ba1a62

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: f6ba1a62

E-book Sales as a Percentage of Total Unit Sales in All Book Formats for a Large US Trade Publisher, by Genre, 2006, 2011, 2016

| Genre                       | 2006 | 2011 | 2016 |
|-----------------------------|------|------|------|
| science fiction and fantasy | 0.6  | 27.7 | 36.7 |
| cookbooks                   | 0    | 2.9  | 10.5 |
| travel guides               | 0    | 5.5  | 24.6 |
| romance                     | 0.3  | 40.6 | 56.2 |

E-books became an increasingly popular means of reading in the United States in the 2000s and 2010s, though that popularity was concentrated in titles that, like those in most fiction genres, are meant to be read straight through from beginning to end. For books in nonfiction genres that do not tell stories and require the reader to flip back and forth through a volume, e-books were significantly less commercially successful. This can be seen by comparing \_\_\_\_\_

Which choice most effectively uses data from the table to illustrate the claim?

- A. the percentage of 2016 cookbook sales that were e-books with the percentage of 2016 science fiction and fantasy sales that were e-books.
- B. the percentage of 2006 romance sales that were e-books with the percentage of 2016 romance sales that were e-books.
- C. the percentage of 2006 romance sales that were e-books with the 2006 science fiction and fantasy sales that were e-books.
- D. the percentage of 2011 travel guide sales that were e-books with the percentage of 2016 travel guide sales that were e-books.

ID: f6ba1a62 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it uses data from the table to effectively support the claim that book genres that typically require the reader to start at the beginning of the story and read straight through are more commercially successful as e-books than other genres. For each of three years, the table presents four book genres and the percentage of total sales for each genre in e-book format. Cookbooks, a nonfiction genre, do not require the reader to read straight through. According to the table, 10.5 percent of total cookbook sales in 2016 were in the e-book format. The 2016 percentage of e-book sales was 36.7 percent in the science fiction and fantasy genre, which are typically stories read straight through from start to finish. The higher percentage of total sales of the story-based e-books in 2016 supports the claim in the text.

Choice B is incorrect because it compares the e-book sales of romance books in 2006 to those in 2016. Romance books are meant to be read straight through from start to finish. The text claims that books that are not stories and do not require reading straight through are not as commercially successful in e-book format as those that do. As this choice is only comparing e-book sales for one genre, it does not support the claim. Choice C is incorrect because both science fiction and fantasy and romance novels are fiction books meant to be read straight through from beginning to end. The text claims that books that are not stories and do not require reading straight through are less commercially successful in e-book format than those that do. As this choice does not compare e-book sales of story genres to e-book sales in genres that are not stories, it does not support the claim. Choice D is incorrect. Although the data in the table show that the travel guide e-books made up a greater percentage of total sales in 2016 than in 2011, this doesn't illustrate the claim in the text that e-books in nonfiction genres not meant to be read straight through are less commercially successful. The claim cannot be supported without comparing the percentage of e-book sales between fiction and nonfiction book genres from the table.

Question Difficulty: Hard

Question ID 8296d9ff

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8296d9ff

Three Studies' Estimated Average Velocity of LMC

| Researchers                 | Study year | Estimated average velocity |
|-----------------------------|------------|----------------------------|
| Murai and Fujimoto          | 1980       | 344 km/s                   |
| Kallivayalil and colleagues | 2006       | 378 km/s                   |
| Gardiner and colleagues     | 1994       | 297 km/s                   |

In 2006, Nitya Kallivayalil and colleagues calculated the most accurate estimate yet of the average velocity (in kilometers per second) of the Large Magellanic Cloud (LMC) galaxy. Before the 2006 study, estimates of the average velocity were low enough for the LMC to maintain an orbit around the Milky Way galaxy, but according to an analysis by Gurtina Besla and colleagues, the estimated velocity from the 2006 study is too high for the LMC to maintain such an orbit. Therefore, if Besla and colleagues are correct, the maximum average velocity for the LMC that would allow it to maintain orbit around the Milky Way is likely \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. above 344 km/s but below 378 km/s.
- B. above 297 km/s but below 344 km/s.
- C. above 378 km/s.
- D. below 297 km/s.

ID: 8296d9ff Answer

Correct Answer: A

Rationale

Choice A is the best answer because it uses data from the table to give the range of velocities for the LMC from the 1980 value (344 km/s) to the 2006 value (378 km/s), thereby effectively completing the text. The text indicates that before 2006, all the estimated velocities of the LMC were within the range necessary to maintain orbit around the Milky Way galaxy. It then indicates that, according to Besla and colleagues, the 2006 estimate of 378 km/s is too high to maintain that orbit. This strongly implies that if the 1980 value (344 km/s) is below the orbital threshold, and if Besla and colleagues are correct that the 2006 value (378 km/s) is above that threshold, the maximum orbital velocity for the LMC must be somewhere in the range from above 344 km/s to below 378 km/s.

Choice B is incorrect. The text indicates that the 2006 velocity estimate for the LMC (378 km/s) was the first estimate that exceeded the velocity needed to maintain orbit around the Milky Way. Thus, the 1980 estimate of 344 km/s and the 1994 estimate of 297 km/s must both be below the maximum possible orbital velocity for the LMC. Choice C is incorrect. The text states that Besla and colleagues’ analysis found that the velocity from the 2006 study (378 km/s) was too high for the LMC to maintain orbit

around the Milky Way. Therefore, if a velocity of 378 km/s is too high, an even higher velocity will also be too high. Choice D is incorrect. The text indicates that the 2006 velocity estimate for the LMC (378 km/s) was the first to exceed the velocity range required to maintain orbit around the Milky Way. Thus, the 1994 estimate of 297 km/s must be below the maximum possible orbital velocity for the LMC.

Question Difficulty: Hard

# Question ID 848c49b2

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 848c49b2

Icebergs generally appear to be mostly white or blue, depending on how the ice reflects sunlight. Ice with air bubbles trapped in it looks white because much of the light reflects off the bubbles. Ice without air bubbles usually looks blue because the light travels deep into the ice and only a little of it is reflected. However, some icebergs in the sea around Antarctica appear to be green. One team of scientists hypothesized that this phenomenon is the result of yellow-tinted dissolved organic carbon in Antarctic waters mixing with blue ice to produce the color green.

Which finding, if true, would most directly weaken the team’s hypothesis?

- A. White ice doesn’t change color when mixed with dissolved organic carbon due to the air bubbles in the ice.
- B. Dissolved organic carbon has a stronger yellow color in Antarctic waters than it does in other places.
- C. Blue icebergs and green icebergs are rarely found near each other.
- D. Blue icebergs and green icebergs contain similarly small traces of dissolved organic carbon.

ID: 848c49b2 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would weaken the scientists’ hypothesis about icebergs that appear to be green. The text indicates that most icebergs are either mostly white or blue in color but that some icebergs in Antarctica appear to be green. The text goes on to say that the scientists hypothesized that this green color occurs when yellow-tinted dissolved organic carbon in ocean waters mixes with blue ice. A finding that both blue icebergs and green icebergs contain similarly small traces of dissolved organic carbon would suggest that something other than yellow-tinted organic carbon causes some icebergs’ green color, since the blue icebergs that contain yellow-tinted organic carbon remained blue instead of turning green.

Choice A is incorrect because, according to the text, the scientists’ hypothesis was that blue icebergs, not white ones, change color when their ice mixes with yellow-tinted dissolved organic carbon. A finding that white ice, because of its air bubbles, doesn’t change color when it’s mixed with dissolved organic carbon would therefore have no bearing on the scientists’ hypothesis. Choice B is incorrect because the text focuses only on Antarctic icebergs that appear to be green. It doesn’t indicate that icebergs in locations other than Antarctica have been found to have a green hue. A finding that dissolved organic carbon has a stronger yellow color in Antarctic waters than in other places would therefore have no bearing on the scientists’ hypothesis that green color in icebergs in Antarctica is caused by yellow-tinted dissolved organic carbon mixing with blue ice. Choice C is incorrect because, according to the text, the scientists’ hypothesis was that blue icebergs turn green when their ice mixes with yellow-tinted dissolved organic carbon in the sea around them. If that’s correct, one would expect blue icebergs and green icebergs to be located at a distance from each other since all blue icebergs in an area where the waters contain yellow-tinted dissolved organic carbon would take on a green hue. A finding that blue icebergs and green icebergs are rarely found near each other would therefore strengthen, not weaken, the researchers’ hypothesis.



# Question ID d6f0ae33

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: d6f0ae33

A student is writing a paper about *One Night in Miami...*, a 2020 film directed by Regina King and written by Kemp Powers. Powers adapted the film’s screenplay from his 2013 play, which he wrote after learning about a 1964 meeting that took place in Miami, Florida, between four prominent figures of the Civil Rights movement: Malcolm X, Muhammad Ali, Jim Brown, and Sam Cooke. The student claims that although Powers was inspired by this meeting, the film is best understood not as a precise retelling of historical events but rather as a largely imagined but informed representation of them.

Which quotation from an article about *One Night in Miami...* would be the most effective evidence for the student to include in support of this claim?

- A. “When Powers learned of the meeting, he initially planned to write a much longer work about its four famous participants rather than focusing on the meeting itself.”
- B. “*One Night in Miami...* received numerous awards and nominations, including an Academy Award nomination for Powers for Best Adapted Screenplay.”
- C. “Powers has described *One Night in Miami...* as the story of four friends encouraging and supporting one another while engaged in a crucial political debate about how best to achieve equality for Black people in the United States.”
- D. “Powers could find only the most superficial historical details about the meeting, so he read extensively about the four individuals and their thinking at the time in an effort to portray what might have happened between them.”

ID: d6f0ae33 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it provides a quotation that effectively supports the student’s claim about the film *One Night in Miami...*. The quotation states that in researching the play on which the film was based, Kemp Powers only found superficial details about what actually happened during the 1964 meeting in Miami between four leading Civil Rights leaders, meaning that there is very little information about the meeting in the historical record. In the absence of greater details, it wouldn’t have been possible for the film to be a precise retelling of the historical events it depicts. The quotation explains that to compensate for this lack of information about the meeting, Powers did extensive research into the four figures and how they thought at the time in order to speculate in an informed way about what they might have said or what might have occurred between them. Therefore, the quotation effectively supports the claim that the film is best understood not as a precise retelling of a historical event but as a deeply informed imaginative rendering of that event.

Choice A is incorrect. Although the quotation discusses how on learning about the 1964 meeting in Miami, Powers was inspired to write a play and, later, to adapt it into a screenplay, it doesn’t discuss Powers’s approach to representing what had occurred in the meeting. Instead, it states that Powers didn’t initially plan to write a story only “focusing on the meeting itself” but rather had considered writing a “much longer” and more expansive work about the meeting’s four participants. Choice B is incorrect because the quotation doesn’t discuss Powers’s approach to representing historical events in his play and in the film; instead, the

quotation focuses on the film's positive critical reception by mentioning that it received numerous awards and nominations. Choice C is incorrect. Although the quotation references historical events that are discussed directly in the play and film by explaining how the four historical figures featured in the story engage in political debates about contemporary issues, it doesn't specify to what extent Powers's representation of what occurred during the 1964 meeting in Miami is a factual retelling of what happened and how much is an imaginative rendering of what might have happened. Rather, the quotation focuses on Powers's description of the film's basic premise and how the characters engage with the historical context of its setting.

Question Difficulty: Hard

Question ID 834ce843

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 834ce843

In the early 1970s, art historian Michael Baxandall created an approach to viewing art called the “period eye,” which explains how to look at art through the lens of its historical period. Baxandall argued that it is critical that art historians understand and communicate the original social and cultural contexts of older works of art so that it is clear what the artists intended and how the pieces would have been understood by their original viewers. Since it was first introduced, Baxandall’s period eye has significantly influenced the practice of art history.

Which statement, if true, would most strongly support the claim in the underlined sentence?

- A. Art historians working today have largely rejected the idea, common among Baxandall’s predecessors, that artists’ intentions should influence how artworks are interpreted.
- B. For some historical periods, it is difficult for art historians to reconstruct how the original viewers of artworks understood what artists’ intentions for their works were.
- C. Numerous art historians of the late twentieth century and twenty-first century have focused their scholarship on how various artworks were interpreted at the time of their creation.
- D. Many art historians working before the 1970s produced detailed analyses of the social and cultural contexts of older artworks, though few extended that approach to artworks produced in their own lifetimes.

ID: 834ce843 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a statement that, if true, would most strongly support the underlined claim that Baxandall’s period eye has significantly influenced the practice of art history since its introduction. The text explains that the period eye—an approach Baxandall introduced in the early 1970s—directs art historians to understand how artworks were originally understood by viewers from the same historical period in which the works were created. If numerous art historians working in the late twentieth and twenty-first centuries—that is, in the decades after Baxandall’s introduction of the approach—have focused on how artworks were interpreted at the time of their creation, their scholarship would correspond to the definition of period eye provided by the text, thereby supporting the claim that the period eye has been significantly influential.

Choice A is incorrect because, as the text explains, Baxandall explicitly recommended examining the social and cultural contexts in which older artworks were produced in order to appreciate the artists’ intentions. Thus, a widespread rejection of artistic intention as an interpretive guide would weaken, not support, the claim that Baxandall influenced the practice of art history. Choice B is incorrect because this statement considers a limitation in applying the period eye approach—namely, the difficulty of reconstructing original viewers’ understanding for some historical periods—instead of addressing whether the approach has influenced the practice of art history. Choice D is incorrect because the statement describes the practice of art historians working before the 1970s, prior to Baxandall’s introduction of the period eye. Pre-1970s scholarship cannot demonstrate Baxandall’s

influence on art history; if anything, it would suggest that some elements of his approach predated him, which has no bearing on whether his particular formulation has shaped the field since.

Question Difficulty: Hard

Question ID 5712a45b

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 5712a45b

Percentage Point Changes in US Federal Outlays Relative to GDP by Congressional Status

| Period    | Congressional status | Change in total outlays | Change in nondefense outlays | Change in defense outlays |
|-----------|----------------------|-------------------------|------------------------------|---------------------------|
| 1981–1988 | divided              | –0.4                    | –1.3                         | 0.9                       |
| 1975–1976 | divided              | 2.7                     | 3.0                          | –0.3                      |
| 1977–1980 | undivided            | 0.3                     | 0.6                          | –0.3                      |
| 1964–1968 | undivided            | 1.9                     | 1.4                          | 0.5                       |
| 1969–1974 | divided              | –1.8                    | 2.1                          | –3.9                      |

Economist Steve H. Hanke has shown that divided US Congresses—which occur when one party holds the majority in the House of Representatives and another holds the majority in the Senate—tend to accompany reductions in total federal outlays (spending) relative to gross domestic product (GDP), which Hanke interprets to reflect decreases in government size. Hanke calculated the percentage point change in total outlays (encompassing nondefense and defense outlays) for consecutive US Congresses. Hanke has pointed to his calculations as evidence that a divided Congress may be a “necessary but not sufficient condition” for a decrease in government size to occur.

Which choice best describes data from the table that support the underlined claim?

- A. The periods of undivided Congresses were associated with increases in nondefense outlays, whereas all the periods of divided Congresses except one were associated with reductions in defense outlays.
- B. All the periods of divided Congresses were associated with reductions in total outlays, although two periods were also associated with increases in nondefense outlays.
- C. The periods of undivided Congresses were associated with increases in total outlays, whereas all the periods of divided Congresses were associated with reductions in either nondefense outlays or defense outlays.
- D. All the periods of divided Congresses except one were associated with reductions in total outlays, whereas the periods of undivided Congresses were associated with increases in total outlays.

ID: 5712a45b Answer

Correct Answer: D

Rationale

Choice D is the best answer. The claim is that divided Congresses are necessary but insufficient—that is, we need divide Congresses, but they are not enough—to decrease government size, as measured by total federal outlays. This choice accurately expresses the supporting data from the “change in total outlays” part of the graph. Within the data set, divided Congresses sometimes decreased total outlays, but undivided ones never did.

Choice A is incorrect. The claim is only about government size, as measured by total federal outlays—defense and nondefense outlays aren't relevant. Choice B is incorrect. The claim is only about government size as measured by total federal outlays—nondefense outlays aren't relevant. Choice C is incorrect. The claim is only about government size as measured by total federal outlays—specific information about defense or nondefense outlays isn't relevant.

Question Difficulty: Hard

# Question ID 1931a93b

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 1931a93b

*Electra* is a circa 420–410 BCE play by Sophocles, translated in 1870 by R.C. Jebb. Electra, who is in mourning for her dead father and her long-absent brother, is aware of the intensity of her grief but believes it to be justified: \_\_\_\_\_

Which quotation from *Electra* most effectively illustrates the claim?

- A. "O thou pure sunlight, and thou air, earth's canopy, how often have ye heard the strains of my lament, the wild blows dealt against this bleeding breast, when dark night fails!"
- B. "Send to me my brother; for I have no more the strength to bear up alone against the load of grief that weighs me down."
- C. "I know my own passion, it escapes me not; but, seeing that the causes are so dire, will never curb these frenzied complaints, while life is in me."
- D. "But never will I cease from dirge and sore lament, while I look on the trembling rays of the bright stars, or on this light of day."

ID: 1931a93b Answer

Correct Answer: C

Rationale

Choice C is the best answer. Electra states that she "knows her own passion," which shows that she's aware of the intensity of her grief. But she also claims that the "causes are so dire"—meaning the reasons for her grief are so awful—that she can't let it go, which shows that she believes her grief is justified.

Choice A is incorrect. This quotation doesn't show that Electra believes her grief is justified. It shows that Electra is aware of its intensity, but it doesn't suggest that she believes she has a legitimate reason for feeling that way. Choice B is incorrect. This quotation doesn't show that Electra believes her grief is justified. It shows that Electra is aware of its intensity, but it doesn't suggest that she believes she has a legitimate reason for feeling that way. Choice D is incorrect. This quotation doesn't show that Electra believes her grief is justified. It shows that Electra is aware of the intensity of her grief, but it doesn't suggest that she has a legitimate reason for feeling that way.

Question Difficulty: Hard

# Question ID 165b2f2e

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 165b2f2e

Guilds in French Cities in the Late Eighteenth Century

| City     | Date | Inhabitants | Number of guilds | Inhabitants per guild |
|----------|------|-------------|------------------|-----------------------|
| Paris    | 1766 | 600,000     | 133              | 4,511                 |
| Bordeaux | 1762 | 80,000      | 49               | 1,633                 |
| Rouen    | 1775 | 74,000      | 112              | 661                   |
| Lyon     | 1789 | 143,000     | 72               | 1,986                 |

Guilds—local associations of artisans and merchants in the same industry—were widespread in France from the medieval period until the late eighteenth century. But guilds were much more numerous relative to the population in some cities than in others: for example, \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. there were 49 guilds in Bordeaux but 72 guilds in Lyon despite the two cities having nearly equal numbers of inhabitants.
- B. Lyon had far fewer inhabitants than Paris did but had many more guilds.
- C. there was one guild for every 661 inhabitants in Rouen but one guild for every 4,511 inhabitants in Paris.
- D. Paris had 133 guilds and 600,000 inhabitants, or one guild for every 4,511 inhabitants.

ID: 165b2f2e Answer

Correct Answer: C

Rationale

Choice C is the best answer. The claim we’re trying to prove is that guilds were much more numerous relative to population in some cities than others. This choice describes the guilds per number of inhabitants in two cities (Rouen and Paris), showing significant differences between guilds relative to population in these cities.

Choice A is incorrect. This choice misreads the table. Bordeaux had 80,000 inhabitants, according to the table, while Lyon had 143,000, so it isn’t correct to say that they had "nearly equal numbers of inhabitants." Lyon had almost twice as many inhabitants. Choice B is incorrect. This choice misreads the table. Although Lyon did have fewer inhabitants than Paris, it didn’t have more guilds—Paris had 133 guilds versus Lyon’s 72. Choice D is incorrect. This choice doesn’t support the claim. To show that guilds were more numerous relative to population in some cities than others, we would need to compare at least two cities, and this choice only mentions one.

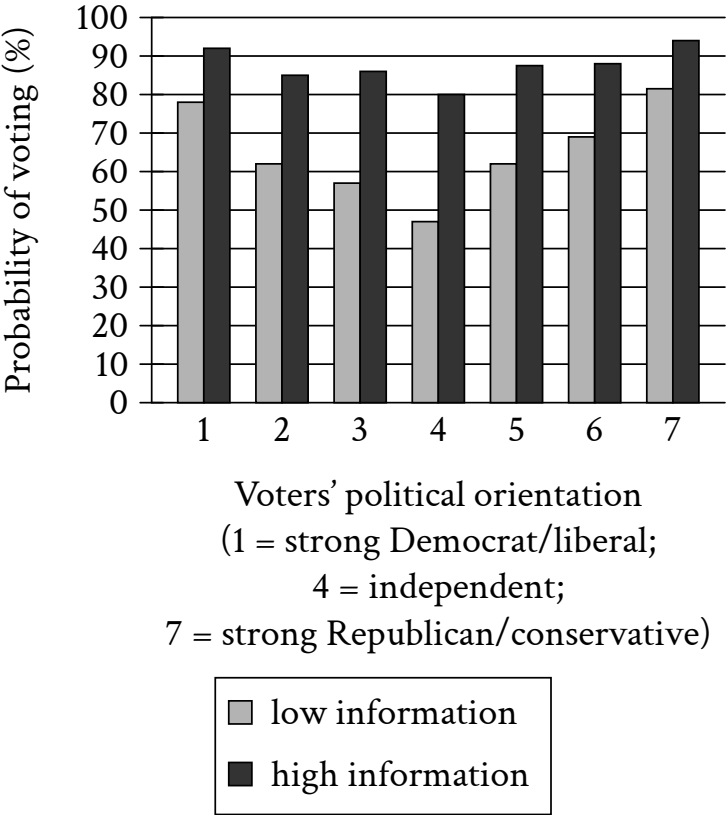
Question Difficulty: Hard

Question ID ca48b8fd

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: ca48b8fd

Voters’ Political Orientation, Level of Political Information, and Probability of Voting



Economists Kerwin Kofi Charles and Melvin Stephens Jr. investigated a variety of factors that influence voter turnout in the United States. Using survey data that revealed whether respondents voted in national elections and how knowledgeable respondents are about politics, Charles and Stephens claim that the likelihood of voting is driven in part by potential voters’ confidence in their assessments of candidates—essentially, the more informed voters are about politics, the more confident they are at evaluating whether candidates share their views, and thus the more likely they are to vote.

Which choice best describes data in the graph that support Charles and Stephens’s claim?

- A. At each point on the political orientation scale, high-information voters were more likely than low-information voters to vote.
- B. Only low-information voters who identify as independents had a voting probability below 50%.
- C. The closer that low-information voters are to the ends of the political orientation scale, the more likely they were to vote.
- D. High-information voters were more likely to identify as strong Democrats or strong Republicans than low-information voters were.

Correct Answer: A

#### Rationale

Choice A is the best answer because it uses data from the graph to effectively support Charles and Stephens's claim about how level of information affects voters. The graph shows the probability of voting for both high- and low-information voters in seven categories of political orientation. Charles and Stephens claim that "the more informed voters are about politics...the more likely they are to vote." This statement correctly asserts that the graph shows a higher probability of voting for high-information voters than for low-information voters at each of the seven political orientations. Thus, this statement accurately cites data from the graph that support Charles and Stephens's claim about how level of information affects voters.

Choice B is incorrect. Although this statement is correct that the only probability in the graph below 50% is for low-information voters categorized as independent (orientation 4), the claim in question is about the relative likelihood that low- and high-information voters will vote, and without some reference to high-information voters, this statement cannot help support such a comparison. Choice C is incorrect. Although this statement is correct that the highest probabilities of voting for low-information voters are at the ends of the orientation scale (1 and 7), the claim in question is about the relative likelihood that low- and high-information voters will vote, and without some reference to high-information voters, this statement cannot help support such a comparison. Choice D is incorrect because the graph does not give any information about how many people are represented in any of the categories, so this statement is not based on data from the graph. Furthermore, even if we did have this information, the claim is about how level of information affects voters' probability of voting, not whether they're likely to strongly identify with a particular political party.

Question Difficulty: Hard

# Question ID a873f6e6

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a873f6e6

An archaeological team led by Piotr Bieliński and Sultan al-Bakri found remnants of a 4,000-year-old Bronze Age board game at a site in Oman. Little is left of the game except a stone board, which is carved with a grid and has places to hold game pieces. Some scholars claim that the game was largely played by traders.

Which finding, if true, would most directly support the scholars’ claim?

- A. Other examples of the game dating to the same period have been found in the remains of several homes in the region, including in one home that may have belonged to a trader.
- B. Similar games have been found in other sites dating to the same period that were connected to the site in Oman via trade routes.
- C. The other known examples of the game dating to the same period have been found along routes that seem to have been used primarily by traders at the time.
- D. Remnants of other goods have been found at the site in Oman that probably also reached the location through trade.

ID: a873f6e6 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would most directly support the scholars’ claim about the board game. The text explains that the remains of a 4,000-year-old board game were found in Oman. The text then states that scholars claim this board game was played mostly by traders. If the other known examples of this board game from the same time period were discovered along routes that seem to have been used primarily by traders, this finding would directly support the scholars’ claim because it suggests that the game was largely played by traders who brought it with them for entertainment as they traveled.

Choice A is incorrect because this finding would suggest only that a single trader may have possessed examples of the board game, perhaps for the purpose of trading or selling the game to residents of Oman. For this reason, the finding wouldn’t directly support the scholars’ claim that the majority of the game’s players were traders. Choice B is incorrect because this finding doesn’t mention the board game at all, referring only to similar games found at other sites, and would therefore provide no direct support for the scholars’ claim about the board game. Choice D is incorrect because this finding doesn’t mention the board game at all, referring only to the remains of other goods found at the site in Oman, and would therefore provide no direct support for the scholars’ claim about the board game.

Question Difficulty: Hard

Question ID 8b86f339

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8b86f339

Characteristics of Five Recently Discovered Gas Exoplanets

| Exoplanet designation | Mass (Jupiters) | Radius (Jupiters) | Orbital period (days) | Distance from the Sun (parsecs) |
|-----------------------|-----------------|-------------------|-----------------------|---------------------------------|
| TOI-640 b             | 0.88            | 1.771             | 5.003                 | 340                             |
| TOI-1601 b            | 0.99            | 1.239             | 5.331                 | 336                             |
| TOI-628 b             | 6.33            | 1.060             | 3.409                 | 178                             |
| TOI-1478 b            | 0.85            | 1.060             | 10.180                | 153                             |
| TOI-1333 b            | 2.37            | 1.396             | 4.720                 | 200                             |

“Hot Jupiters” are gas planets that have a mass of at least 0.25 Jupiters (meaning that their mass is at least 25% of that of Jupiter) and an orbital period of less than 10 days (meaning that they complete one orbit around their star in less than 10 days), while “warm Jupiters” are gas planets that meet the same mass criterion but have orbital periods of more than 10 days. In 2021, Michigan State University astronomer Joseph Rodriguez and colleagues announced the discovery of five new gas exoplanets and asserted that four are hot Jupiters and one is a warm Jupiter.

- Which choice best describes data from the table that support Rodriguez and colleagues’ assertion?
- A. None of the planets have an orbital period of more than 10 days, and TOI-628 b has a mass of 6.33 Jupiters.
  - B. TOI-1478 b has an orbital period of 153 days, and the masses of all the planets range from 0.85 to 6.33 Jupiters.
  - C. All the planets have a radius between 1.060 and 1.771 Jupiters, and only TOI-1333 b has an orbital period of more than 10 days.
  - D. Each of the planets has a mass greater than 0.25 Jupiters, and all except for TOI-1478 b have an orbital period of less than 10 days.

ID: 8b86f339 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it accurately describes data from the table that support Rodriguez and colleagues’ assertion about the classifications of the five new gas exoplanets. The text describes two categories of gas planets: hot Jupiters, which have a mass of at least 0.25 Jupiters and an orbital period of less than 10 days, and warm Jupiters, which have the same mass characteristic but have orbital periods of more than 10 days. According to the table, four of the gas exoplanets discovered by Rodriguez and colleagues have a mass of at least 0.25 Jupiters and an orbital period of less than 10 days, while one of the planets has a mass of at least 0.25 Jupiters and an orbital period of more than 10 days. These data therefore support Rodriguez and colleagues’ assertion that four of the new exoplanets are hot Jupiters and one is a warm Jupiter.

Choice A is incorrect because it doesn't accurately describe the data from the table. Although the table shows that TOI-628 b has a mass equivalent to 6.33 Jupiters, the table also shows that one of the planets—TOI-1478 b—does indeed have an orbital period of more than 10 days. Choice B is incorrect because it doesn't accurately describe the data from the table. Although the table does show that the masses of the five planets range from 0.85 to 6.33 Jupiters, the table also shows that TOI-1478 b has an orbital period of 10.180 days, not 153 days. Choice C is incorrect. According to the table, TOI-1333 b has an orbital period of only 4.720 days, not more than 10 days. Additionally, although the table does show that all the planets have a radius between 1.060 and 1.771 Jupiters, the text indicates that a planet may be classified as a hot Jupiter or a warm Jupiter based on its mass and orbital period, not on its radius, making the information about the range of the five planets' radius values irrelevant.

Question Difficulty: Hard

Question ID 4c57061a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 4c57061a

Having demonstrated that the power conversion efficiency of new perovskite photovoltaic cells is nearly indistinguishable from that of cells recycled multiple times, Xun Xiao and colleagues evaluated the levelized cost of electricity (LCOE)—a measure of cost per produced electricity unit that incorporates materials acquisition costs as well as operating costs—for power plants utilizing each type of cell. With a modeled 15-year cell lifetime, the LCOE of plants using new cells was 4.99 cents per kilowatt-hour, whereas that of plants using cells recycled three times was 4.05 cents per kilowatt-hour. Moreover, the LCOE differential grew from 18.8% to 31.3% when the modeled cell lifetime was reduced by two-thirds.

- Based on the text, which choice, if true, most coherently and directly accounts for the observation presented in the underlined sentence?
- A. Cells can be recycled multiple times without a significant decrease in power conversion efficiency, and thus recycling cells more frequently does not change the LCOE for plants using recycled cells.
  - B. Although potentially less expensive than producing new cells, recycling cells does incur costs, and thus reducing cell lifetimes entails greater cumulative costs.
  - C. Securing new cell materials is more expensive than recycling cell materials, and thus more frequent cell replacement entails greater disparity in cumulative costs.
  - D. As the modeled cell lifetime decreases, plant operating costs increase, and thus the LCOE for plants using new cells diverges from that of plants using recycled cells.

ID: 4c57061a Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents information that, if true, would coherently and directly account for the researchers’ observation about the LCOE differential between plants using new cells and plants using recycled cells. The text explains that the researchers found that the LCOE—a cost-per-unit electricity measure that includes the cost of acquiring the materials—is higher for plants using new cells than for plants using cells recycled three times, with the gap between them growing from 18.8% to 31.3% when the researchers reduced the modeled cell lifetime by two-thirds (that is, from 15 years to 5 years). If obtaining new cell materials were more expensive than recycling preexisting cell materials, then plants using new cells would incur greater materials costs than plants using recycled cells when cells need to be replaced, and the greater frequency of cell replacement entailed by a shorter cell lifetime would force plants using new cells to incur that greater cost more often—widening the gap between those plants and plants using recycled cells.

Choice A is incorrect because the information that efficiencies are similar between new and recycled cells (which the text already establishes) and that frequency of recycling doesn’t affect the LCOE for plants using recycled cells wouldn’t address the effect of shorter cell lifetimes on the LCOE of plants using new cells. Information about that effect would be needed to account for the observation that the gap between the LCOEs for the two types of plants widens when cell lifetimes are shortened. Choice B is

incorrect. Although the choice does point to the possibility of a scenario that could explain the growth in the LCOE differential (“potentially less expensive than producing new cells”), it presents that information as a concession (“although”) to its central assertion, which is that the cumulative costs would increase if cells had to be replaced more frequently than on the original 15-year timeline. This choice doesn’t indicate whether the increased cumulative costs in question are those of recycled-cell plants or both types of plants; either way, an increase in cumulative costs isn’t a coherent or direct explanation for why the difference in costs between new-cell plants and recycled-cell plants increases when the cell lifetime is reduced by two-thirds. A coherent and direct explanation for growth in the cost difference between the two types of plants must focus on a disparate effect on the plants’ costs; choice B, however, presents information that could be but is not necessarily relevant to a disparate effect and then doesn’t draw the relevant conclusion from it, instead drawing a conclusion about cumulative costs that doesn’t entail a growing differential. Choice D is incorrect because even if plant operating costs increase as cell lifetime decreases, that would be true for plants using new cells and for plants using recycled cells and thus wouldn’t be responsible for a divergence; therefore, the finding wouldn’t coherently and directly explain the observation that the gap between the LCOEs of the two types of plants widens as cell lifetimes are reduced.

Question Difficulty: Hard

# Question ID 7bf476c9

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7bf476c9

A student is examining a long, challenging poem that was initially published in a quarterly journal without explanatory notes, then later republished in a stand-alone volume containing only that poem and accompanying explanatory notes written by the poet. The student asserts that the explanatory notes were included in the republication primarily as a marketing device to help sell the stand-alone volume.

Which statement, if true, would most directly support the student’s claim?

- A. The text of the poem as published in the quarterly journal is not identical to the text of the poem published in the stand-alone volume.
- B. Many critics believe that the poet’s explanatory notes remove certain ambiguities of the poem and make it less interesting as a result.
- C. The publishers of the stand-alone volume requested the explanatory notes from the poet in order to make the book attractive to readers who already had a copy of the poem in a journal issue.
- D. Correspondence between the poet and the publisher reveals that the poet’s explanatory notes went through several drafts.

ID: 7bf476c9 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it would most directly support the student’s claim about the motivation for including explanatory notes with the stand-alone volume of the poem. The text explains that the poem had previously been published without the notes in a quarterly journal. It stands to reason that readers who had purchased the journal issue containing the poem would be unlikely to purchase an unchanged version of the poem in a stand-alone volume. However, the inclusion of notes in that volume would encourage the purchase of a stand-alone volume, since the later text would differ from the original by including the author’s own explanation of the poem. Therefore, if it were true that the publishers of the stand-alone volume had requested the notes to make the book attractive to readers who already had a copy of the journal issue, this fact would support the student’s claim that the notes were included primarily as a marketing device.

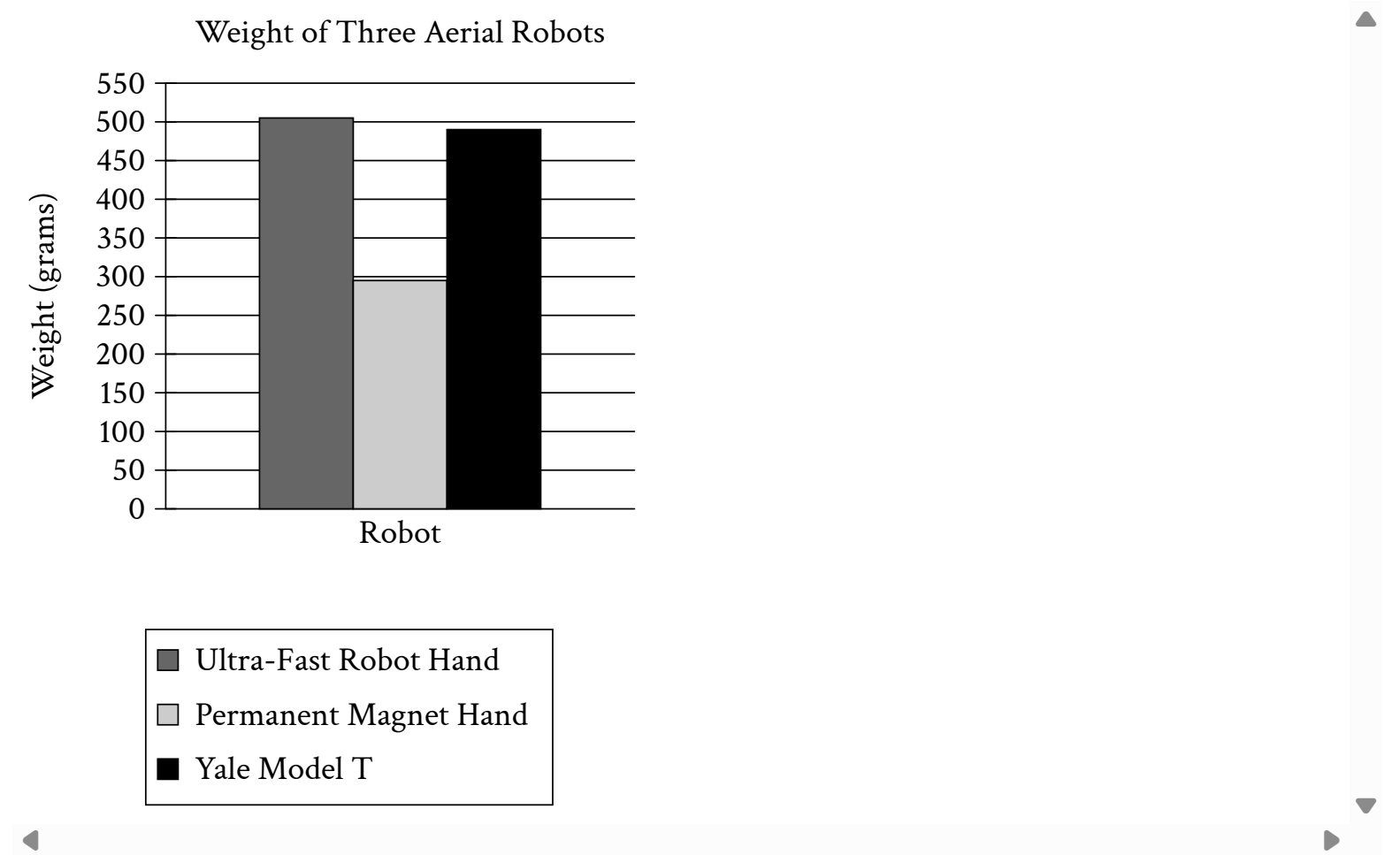
Choice A is incorrect because the student’s claim is about the motivation for including the explanatory notes in the stand-alone volume, not about changes that might have been made to the poem itself for publication in that volume; moreover, the text never suggests that such changes were made. Choice B is incorrect because the student’s claim is about why the explanatory notes were included in the stand-alone volume, not about how the notes affected readers’ and critics’ subsequent experience of the poem. Choice D is incorrect because the fact that the poet drafted multiple versions of the explanatory notes doesn’t directly address the issue of whether the notes were intended as a marketing device, as the student claims; the correspondence would support this claim only if it showed that the poet had revised the notes specifically to make them useful to the marketing of the stand-alone volume.

Question Difficulty: Hard

Question ID 804b474e

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 804b474e



Aerial robots vary considerably in their holding force; the Ultra-Fast Robot Hand, for example, has a holding force of 56 newtons, more than twice that of the Permanent Magnet Hand and more than four times that of the Yale Model T. Since an aerial robot must lift its own weight along with its cargo, engineer Jiawei Meng and colleagues used a ratio of each robot’s holding force to the robot’s weight to calculate payload capacity, with higher ratios corresponding to greater capacity, concluding that the Ultra-Fast Robot Hand has a higher payload capacity than the Yale Model T.

Which choice best describes data in the graph that support Meng and colleagues’ conclusion?

- A. The Ultra-Fast Robot Hand and the Yale Model T each weigh more than 450 grams.
- B. The Ultra-Fast Robot Hand and the Yale Model T each weigh more than the Permanent Magnet Hand does.
- C. The Yale Model T has a lower holding force than the Permanent Magnet Hand despite weighing more.
- D. The Ultra-Fast Robot Hand weighs only slightly more than the Yale Model T does.

Correct Answer: D

#### Rationale

Choice D is the best answer because it describes data in the graph that support Meng and colleagues' conclusion that the Ultra-Fast Robot Hand has a higher payload capacity than the Yale Model T. According to the text, payload capacity is calculated by using a ratio of a robot's holding force to the robot's weight, and higher ratios indicate a greater payload capacity. The Ultra-Fast Robot Hand has a holding force of 56 newtons, four times greater than that of the Yale Model T. Additionally, the graph shows that the Ultra-Fast Robot Hand has a weight of approximately 500 grams, slightly more than the Yale Model T's weight of approximately 480 grams. Therefore, the Ultra-Fast Robot Hand has a higher ratio of holding force to weight than the Yale Model T. Since higher ratios correspond to greater payload capacity, the information from the graph indicating that the Ultra-Fast Robot Hand weighs only slightly more than the Yale Model T combined with the information in the text ultimately supports the conclusion that the Ultra-Fast Robot Hand has a higher payload capacity than the Yale Model T.

Choice A is incorrect. Although, according to the graph, it's true that both the Ultra-Fast Robot Hand and the Yale Model T weigh more than 450 grams, this statement doesn't support Meng and colleagues' conclusion that the Ultra-Fast Robot Hand has a higher payload capacity than the Yale Model T. This statement emphasizes a similarity, not a distinction, between the two robots. Choice B is incorrect. Although, according to the graph, it's true that the Ultra-Fast Robot Hand and the Yale Model T both weigh more than the Permanent Magnet Hand does, this statement doesn't support Meng and colleagues' conclusion that the Ultra-Fast Robot Hand has a higher payload capacity than the Yale Model T. This statement emphasizes a similarity, not a distinction, between the Ultra-Fast Robot Hand and the Yale Model T. Furthermore, the comparison to the Permanent Magnet Hand is irrelevant to the claim about the relative ratios and payload capacities of the Ultra-Fast Robot Hand and the Yale Model T. Choice C is incorrect. Although the text states that the Yale Model T has a lower holding force than the Permanent Magnet Hand, the graph provides no information about holding force. Moreover, information about the Permanent Magnet Hand is irrelevant to the conclusion by Meng and colleagues, which only concerns the Ultra-Fast Robot Hand and the Yale Model T.

Question Difficulty: Hard

# Question ID 47c31054

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 47c31054

“The Young Girl” is a 1920 short story by Katherine Mansfield. In the story, the narrator takes an unnamed seventeen-year-old girl and her younger brother out for a meal. In describing the teenager, Mansfield frequently contrasts the character’s pleasant appearance with her unpleasant attitude, as when Mansfield writes of the teenager, \_\_\_\_\_

Which quotation from “The Young Girl” most effectively illustrates the claim?

- A. “I heard her murmur, ‘I can’t bear flowers on a table.’ They had evidently been giving her intense pain, for she positively closed her eyes as I moved them away.”
- B. “While we waited she took out a little, gold powder-box with a mirror in the lid, shook the poor little puff as though she loathed it, and dabbed her lovely nose.”
- C. “I saw, after that, she couldn’t stand this place a moment longer, and, indeed, she jumped up and turned away while I went through the vulgar act of paying for the tea.”
- D. “She didn’t even take her gloves off. She lowered her eyes and drummed on the table. When a faint violin sounded she winced and bit her lip again. Silence.”

ID: 47c31054 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it most effectively illustrates the claim in the text that in describing the teenaged girl, Mansfield contrasts the character’s pleasant appearance with her unpleasant attitude. In the quotation, Mansfield describes the teenager as having a “lovely nose” (a compliment about her appearance) but also as treating her makeup puff “as though she loathed it” (a judgment suggesting her unpleasant attitude).

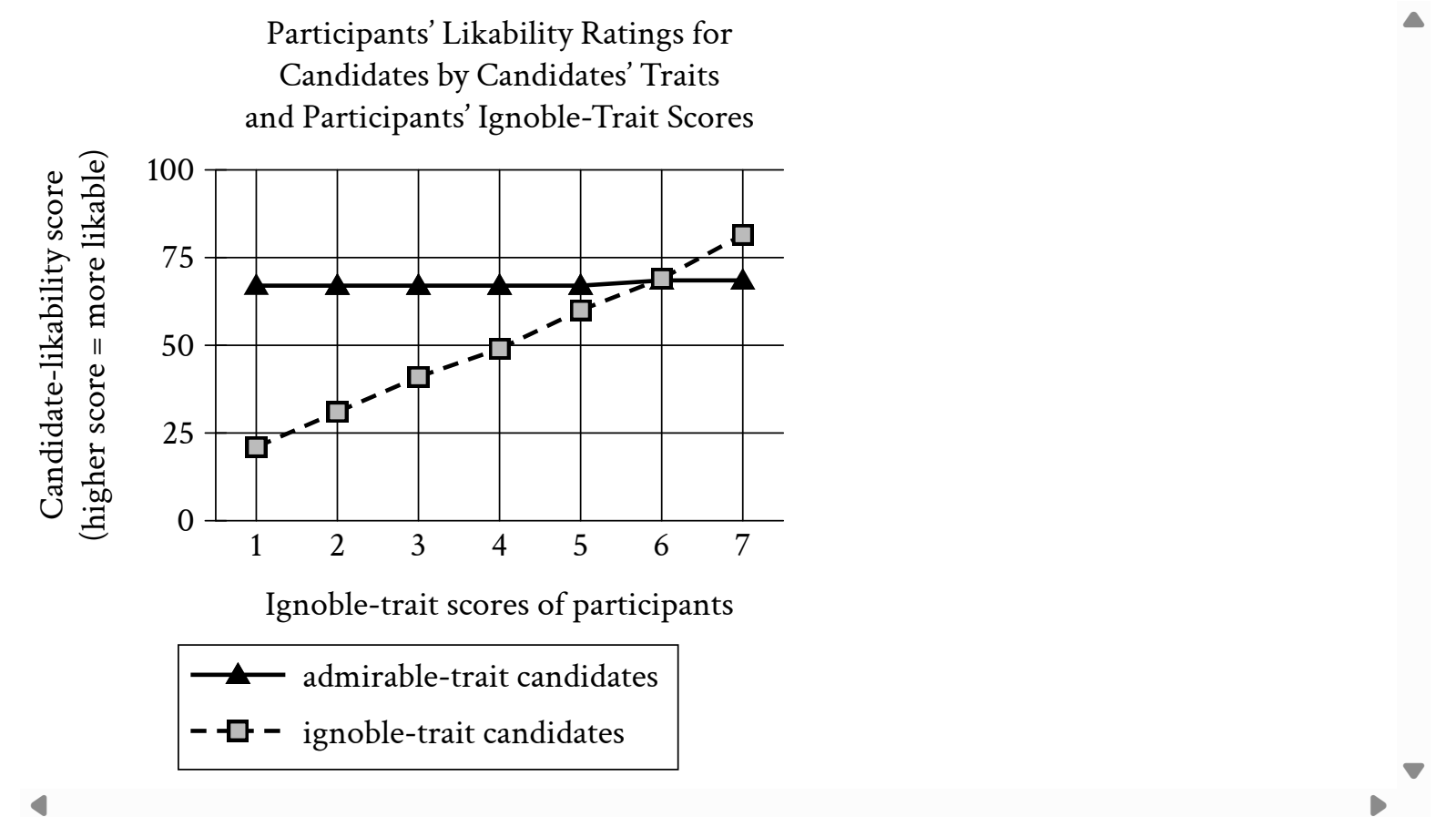
Choice A is incorrect because the teenager’s reaction to the flowers doesn’t make it clear that she has an unpleasant attitude, and nothing in the quotation indicates that any part of her appearance is pleasant. Choice C is incorrect because the quotation suggests that the teenager has an unpleasant attitude (being upset with the location and leaving the table before the narrator has paid for the meal) but doesn’t give any indication that she has a pleasant appearance. Choice D is incorrect because the quotation suggests that the teenager may have an unpleasant attitude (lowering her eyes, wincing, and sitting in silence) but doesn’t give any indication that any part of her appearance is pleasant.

Question Difficulty: Hard

Question ID dfc120dd

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
|----------------------|---------------------|-----------------------|---------------------|-------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: dfc120dd



Alessandro Nai et al. presented study participants with vignettes about fictive political candidates, portraying them as embodying a personality trait widely considered admirable (e.g., agreeableness) or one considered ignoble (e.g., cynicism). A survey recorded participants' ratings of the candidates' likability and showed that across participants, ignoble-trait candidates were less likable than admirable-trait candidates. However, when the researchers factored in the participants' own personality-trait scores, on a scale of 1 (least ignoble) to 7 (most ignoble), they concluded that this relative ranking of candidates persisted except among the participants with high ignobility scores.

Which choice best describes data from the graph that support the researchers' conclusion?

- A. There was a strong positive correlation between participants' ignobility scores and admirable-trait candidates' likability ratings, but there was no correlation between ignobility scores and ignoble-trait candidates' likability ratings.
- B. Participants with an ignobility score of 5 or less rated admirable-trait candidates as more likable than ignoble-trait candidates, whereas participants with an ignobility score of 6 or more rated ignoble-trait candidates as equally likable as or even more likable than admirable-trait candidates.
- C. Overall, participants rated admirable-trait candidates as quite likable, and that rating was not significantly affected by the participants' ignobility scores.

D. Unlike participants with an ignobility score of 6, participants with an ignobility score either greater or less than 6 gave admirable-trait candidates and ignoble-trait candidates different likability ratings.

**ID: dfc120dd Answer**

Correct Answer: B

Rationale

Choice B is the best answer because it describes data from the graph that support the researchers' conclusion that the trend of admirable-trait candidates being rated as more likable than ignoble-trait candidates held true when participants' own personality-trait scores were factored in, except among participants with high ignobility scores. The values on the x-axis represent survey participants grouped by their own ignobility scores, from low ignobility (1) to high ignobility (7), while the values on the y-axis represent the likability scores given to the political candidates. The graph shows that the full range of participants (from least to most ignoble) gave the admirable-trait candidates (represented by the line with triangles) a likability rating of approximately 70 out of 100; that is, regardless of their own level of ignobility, participants generally found admirable-trait candidates quite likable. However, the graph shows that participants varied in their views of ignoble-trait candidates (represented by the line with squares); likability ratings increased as the participants' own ignobility scores increased. Participants with low to medium-high ignobility scores (1 to 5) still rated the ignoble-trait candidates as less likable than the admirable-trait candidates, with all ratings falling below approximately 70, but participants with high ignobility scores (6 and 7) gave ratings equal to or higher than approximately 70. In other words, the previously observed trend of ranking admirable-trait candidates as more likable than ignoble-trait candidates persisted for participants with low to medium-high ignobility but not for participants with high ignobility.

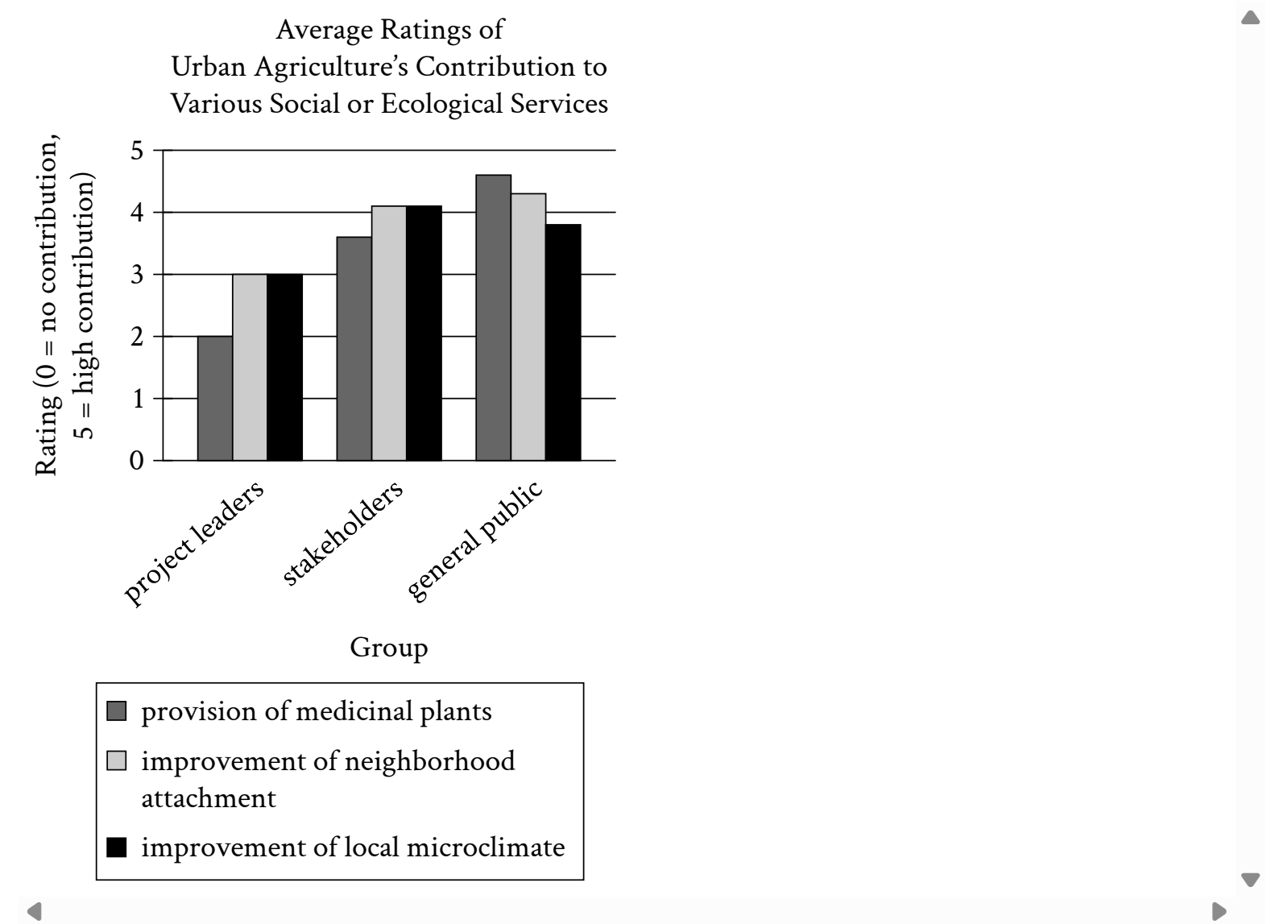
Choice A is incorrect because it describes the opposite of what the graph shows. The graph shows a positive correlation between participants' ignobility scores and ignoble-trait candidates' likability ratings (as participants' ignobility scores increased, so did their ratings for ignoble-trait candidates' likability) and no correlation between ignobility scores and admirable-trait candidates' likability ratings (all participants gave admirable-trait candidates a rating of approximately 70 out of 100). Choice C is incorrect. The graph does show that regardless of their own ignobility scores, participants rated admirable-trait candidates as quite likable (a rating of approximately 70 out of 100). However, this doesn't support the researchers' conclusion because the conclusion has to do with how participants rated both types of candidates, not just the admirable-trait ones; moreover, the conclusion is that relative ratings were actually affected by the participants' ignobility scores. Choice D is incorrect. The graph does show that only participants with an ignobility score of 6 gave the same likability score to both admirable- and ignoble-trait candidates while participants with other ignobility scores gave a different rating for each candidate, but this doesn't support the researchers' conclusion. The conclusion isn't just that participants gave different ratings to the two types of candidates—it's that participants with low to medium-high ignobility scores specifically gave higher likability ratings to admirable-trait candidates than to ignoble-trait candidates and that participants with high ignobility scores didn't.

Question Difficulty: Hard

Question ID 34c4f656

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
|----------------------|---------------------|-----------------------|---------------------|-------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: 34c4f656



Urban agriculture is the practice of growing plant- or animal-based products in urban settings such as community gardens and rooftop farms. Esther Sanyé-Mengual, Kathrin Specht, and their team surveyed three groups of people in Bologna, Italy—leaders of urban agriculture projects, stakeholders in urban agriculture (e.g., food researchers and urban farming associations), and the general public—to compare their views about the extent to which urban agriculture contributes to 25 social or ecological services that the team identified. The survey results show that, on average, project leaders rated urban agriculture as contributing less to

Which choice most effectively uses data from the graph to complete the assertion?

- A. providing medicinal plants than to improving the local microclimate.
- B. improving community members’ sense of attachment to the neighborhood than to offering educational opportunities.

C. improving the local microclimate than to providing medicinal plants.

D. improving the local microclimate than to providing tourist attractions.

**ID: 34c4f656 Answer**

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the graph to complete the assertion about urban agriculture. The graph shows the average survey ratings, on a scale of 0 to 5, from three groups of people—project leaders, stakeholders, and the general public—concerning the contributions of urban agriculture. According to the graph, project leaders gave an average rating of approximately 2 to urban agriculture’s contributions to the provision of medicinal plants, which is lower than the average rating of approximately 3 that project leaders gave to urban agriculture’s contributions to both improving the local microclimate and improving a sense of attachment to the neighborhood. This shows that project leaders rated urban agriculture as contributing less to providing medicinal plants than to improving the local microclimate.

Choice B is incorrect because the graph doesn’t provide data about urban agriculture’s contribution to educational opportunities; therefore, this comparison can’t be made. Choice C is incorrect because it contradicts the data shown in the graph. On average, project leaders gave a rating of approximately 3 to urban agriculture’s contributions to improving the local microclimate, which is higher, not lower, than the average rating of approximately 2 that they gave to its contributions to providing medicinal plants. Choice D is incorrect because the graph doesn’t provide data about urban agriculture’s contribution to providing tourist attractions; therefore, this comparison can’t be made.

Question Difficulty: Hard

# Question ID 792e99cf

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 792e99cf

Studies have demonstrated that positive feedback enhances real-world exercise performance and exercisers’ psychological experience of physical activity. Nicole Trewick and team tested their prediction that positive feedback would produce analogous results among participants cycling on a stationary bike in a virtual reality environment. After monitoring participants’ pedaling rate and heart rate to determine the effects on their physical endurance (e.g., their ability to sustain a certain target pedaling and heart rate) of feedback (positive, negative, or neutral) delivered at regular intervals, the researchers used participants’ questionnaire responses to assess their psychological experience of the task.

Assuming participants had similar baseline fitness levels, which finding from the study, if true, would most strongly suggest that positive feedback had the predicted psychological effect but not the predicted physical effect?

- A. Compared with participants who received positive feedback, participants who received neutral feedback reported lower enjoyment of the activity on average but maintained their heart and pedaling rates for longer durations than participants who received negative feedback.
- B. Compared with participants who received positive or neutral feedback, participants who received negative feedback reported lower enjoyment of the activity on average but maintained their heart and pedaling rates for longer durations.
- C. Compared with participants who received negative feedback, participants who received neutral feedback reported similar levels of enjoyment of the activity on average but maintained their heart and pedaling rates for shorter durations than participants who received positive feedback.
- D. Compared with participants who received negative or neutral feedback, participants who received positive feedback reported greater enjoyment of the activity on average but maintained their heart and pedaling rates for approximately similar durations.

ID: 792e99cf Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would most strongly suggest that positive feedback had the psychological effect Trewick and her team predicted but not the predicted physical effect. The text explains that Trewick and team predicted positive feedback would, in a virtual reality environment, replicate two real-world results: an enhanced psychological experience (higher enjoyment) and improved physical endurance (longer maintenance of target heart and pedaling rates). If participants who received positive feedback reported greater enjoyment than those who received negative or neutral feedback, that would indicate that the predicted psychological effect occurred. At the same time, if those participants maintained their heart and pedaling rates for approximately the same durations as participants in the other groups, that would indicate that the predicted physical effect did not occur, since positive feedback didn’t produce longer maintenance of target heart and pedaling rates. Together, these results would indicate that positive feedback produced the predicted psychological effect but not the predicted physical effect.

Choice A is incorrect. Reported enjoyment being greater with positive feedback than with neutral feedback would be evidence of the predicted positive effect of positive feedback on participants' psychological experience, but the fact that participants had greater endurance with neutral feedback than with negative feedback wouldn't reveal anything about how endurance was affected by positive feedback, and thus wouldn't show that positive feedback didn't have the predicted physical effect. Choice B is incorrect. A finding that participants who received negative feedback reported lower enjoyment than participants who received positive or neutral feedback did would show that enjoyment was lowered by negative feedback but wouldn't confirm that enjoyment was greater with positive feedback than with neutral feedback, which a finding would need to do to demonstrate that positive feedback enhanced enjoyment as predicted. Further, the fact that participants who received negative feedback had greater endurance than those who received positive or neutral feedback wouldn't reveal whether positive feedback had an effect on endurance, either positive or negative. Choice C is incorrect because endurance being greater with positive feedback than with neutral feedback would show that positive feedback did have the predicted physical effect (enhancing endurance). Further, reported enjoyment being similar with neutral feedback and negative feedback wouldn't reveal anything about how enjoyment was affected by positive feedback, and thus wouldn't show that positive feedback had the predicted psychological effect.

Question Difficulty: Hard

# Question ID 7a209bff

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7a209bff

“Ghosts of the Old Year” is an early 1900s poem by James Weldon Johnson. In the poem, the speaker describes experiencing an ongoing cycle of anticipation followed by regretful reflection: \_\_\_\_\_

Which quotation from “Ghosts of the Old Year” most effectively illustrates the claim?

- A. “What does this brazen tongue declare, / That falling on the midnight air / Brings to my heart a sense of care / Akin to fright?”
- B. “The snow has ceased its fluttering flight, / The wind sunk to a whisper light, / An ominous stillness fills the night, / A pause—a hush.”
- C. “It tells of many a squandered day, / Of slighted gems and treasured clay, / Of precious stores not laid away, / Of fields unreaped.”
- D. “And so the years go swiftly by, / Each, coming, brings ambitions high, / And each, departing, leaves a sigh / Linked to the past.”

ID: 7a209bff Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents the quotation that most effectively illustrates the claim that the speaker of the poem describes experiencing an ongoing cycle of anticipation followed by regretful reflection. In this quotation, the speaker notes that as years go by, “Each, coming”—that is, each new year as it comes—“brings ambitions high.” In other words, the speaker begins each new year with large goals. But the speaker goes on to say that as each year ends (“each, departing”), it “leaves a sigh / Linked to the past.” A sigh is an expression of longing or regret, so in the context of the whole quotation, this portion suggests that at the end of each year, the speaker regretfully reflects on not having achieved the ambitions formed at the beginning of the year. The phrases “the years go swiftly by,” “Each, coming,” and “each, departing” indicate that this experience happens over and over again: the speaker experiences a cycle of anticipation followed by regretful reflection.

Choice A is incorrect because this quotation does not describe an ongoing cycle of anticipation followed by regretful reflection. Instead, the speaker describes experiencing a sensation similar to fright as a result of something that has occurred at midnight. Specifically, the speaker has heard a “brazen tongue,” a figurative way of saying that the speaker has heard the clang of a bronze bell being rung. Choice B is incorrect because although this quotation does convey a sense of anticipation through its reference to “ominous stillness,” there is no suggestion of regretful reflection or any indication that the speaker is describing an ongoing cycle of anticipation followed by such reflection. Instead, the speaker is describing a particular moment when a winter storm appears to have momentarily calmed. Choice C is incorrect because although this quotation does convey a sense of regret (“many a squandered day”), nothing in the quotation suggests an ongoing cycle of anticipation followed by regret. Instead, the speaker is simply lamenting wasted time and opportunities.

Question Difficulty: Hard

Question ID 8ef1dbda

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8ef1dbda

In the mountains of Brazil, *Barbacenia tomentosa* and *Barbacenia macrantha*—two plants in the Velloziaceae family—establish themselves on soilless, nutrient-poor patches of quartzite rock. Plant ecologists Anna Abrahão and Patricia de Britto Costa used microscopic analysis to determine that the roots of *B. tomentosa* and *B. macrantha*, which grow directly into the quartzite, have clusters of fine hairs near the root tip; further analysis indicated that these hairs secrete both malic and citric acids. The researchers hypothesize that the plants depend on dissolving underlying rock with these acids, as the process not only creates channels for continued growth but also releases phosphates that provide the vital nutrient phosphorus.

Which finding, if true, would most directly support the researchers’ hypothesis?

- A. Other species in the Velloziaceae family are found in terrains with more soil but have root structures similar to those of *B. tomentosa* and *B. macrantha*.
- B. Though *B. tomentosa* and *B. macrantha* both secrete citric and malic acids, each species produces the acids in different proportions.
- C. The roots of *B. tomentosa* and *B. macrantha* carve new entry points into rocks even when cracks in the surface are readily available.
- D. *B. tomentosa* and *B. macrantha* thrive even when transferred to the surfaces of rocks that do not contain phosphates.

ID: 8ef1dbda Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would support the researchers’ hypothesis about the plants’ dependence on dissolving rock. The text indicates that the roots of the two plant species grow directly into quartzite rock, where hairs on the roots secrete acids that dissolve the rock. The researchers hypothesize that the plants depend on this process because dissolving rock opens spaces for the roots to grow and releases phosphates that provide the plants with phosphorus, a vital nutrient. If the plants carry out this process of dissolving rock even when the rock already has spaces into which the roots could grow, that would support the researchers’ hypothesis because it suggests that the plants are getting some advantage—such as access to phosphorus—from the action of dissolving rock. If the plants don’t benefit from dissolving rock, they would be expected to grow in the cracks that already exist, as doing so would mean that the plants don’t have to spend energy creating and secreting acids; if, however, the plants create new entry points by dissolving rock even when cracks already exist, that would support the hypothesis that they depend on dissolving rock for some benefit.

Choice A is incorrect because the existence of soil-inhabiting members of the Velloziaceae family with similar root structures to those of the two species discussed in the text wouldn’t support the researchers’ hypothesis that the species discussed in the text depend on dissolving rock. If other such members exist, that might suggest that the root structures can serve more functions than secreting acids to dissolve rock (since dissolving rock may not be necessary for plants living in soil), but that wouldn’t suggest anything about whether the species discussed in the text benefit from dissolving rock. Choice B is incorrect because

differences in the proportions of citric and malic acid secreted by the two species would be irrelevant to the hypothesis that the plants depend on dissolving rock. There's no information in the text to suggest that the proportion of each acid has any bearing on the process of dissolving rock or on any benefits the plants might receive from that process. Choice D is incorrect because if the two species thrive on rocks without phosphates, that would weaken the researchers' hypothesis that the plants depend on dissolving rock partly because dissolving rock gives them access to phosphates. If the plants can survive on rocks without getting a vital nutrient by dissolving those rocks, then either the nutrient isn't actually vital for those plants or they can get the nutrient in some way other than by dissolving rocks.

Question Difficulty: Hard

# Question ID 681862a4

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 681862a4

East Australian humpback whales migrate up to 10,000 kilometers each year to reach their breeding grounds. Researchers long believed that migrating whales live only on the extra energy they stored up during the feeding season. But marine biologist Vanessa Pirotta and her team aren't so sure. They analyzed 20 years of observations of the migrating whales made by citizen scientists (members of the public who help collect data for scientific research). The team claims that the whales may not live only on their stored energy during migration.

Which finding, if true, would most directly support the team's claim?

- A. Citizen scientists have observed many different types of marine animals feeding alongside the whales.
- B. Citizen scientists have made many observations of the whales feeding as they migrate to their breeding grounds.
- C. Citizen scientists have made more observations of the whales migrating to their breeding grounds than of the whales returning to their feeding grounds.
- D. Citizen scientists have recently begun to observe the whales migrating to their breeding grounds earlier in the year.

ID: 681862a4 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support Pirotta and her team's claim that East Australian humpback whales may not live only on stored energy during migration. The text explains that it has long been thought that East Australian humpback whales store extra energy during the feeding season and then use that energy to survive while traveling to their breeding grounds. If it were true that citizen scientists have often seen the whales feeding as they migrate to the breeding grounds, that would indicate that the whales sometimes feed and take in additional energy during the journey, meaning that they may not rely only on energy they stored before migrating.

Choice A is incorrect because finding that citizen scientists have observed many different types of marine animals feeding alongside the whales would have no bearing on the team's claim; the behavior of other animals is irrelevant, and without indicating the timing of the observed feeding, the finding wouldn't reveal whether the whales rely only on previously stored energy or ever take in additional energy during migration. Choice C is incorrect because finding that citizen scientists have more often observed whales on the way to their breeding grounds than returning to their feeding grounds would have no bearing on the team's claim. Since it would provide information about the timing of observations but not about the whales' observed activities, the finding wouldn't reveal whether the whales rely only on previously stored energy or ever take in additional energy during migration. Choice D is incorrect because finding that citizen scientists have recently started seeing the whales migrate to their breeding grounds earlier in the year would have no bearing on the team's claim. Since it would provide information about a change in the timing of migration but not about the whales' observed activities while migrating, the finding wouldn't reveal whether the whales rely only on previously stored energy or ever take in additional energy during migration.

Question Difficulty: Hard

# Question ID 27ed6a27

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 27ed6a27

The novelist Toni Morrison was the first Black woman to work as an editor at the publishing company Random House, from 1967 to 1983. A scholar asserts that one of Morrison’s likely aims during her time as an editor was to strengthen the presence of Black writers on the list of Random House’s published authors.

Which finding, if true, would most strongly support the scholar’s claim?

- A. The percentage of authors published by Random House who were Black rose in the early 1970s and stabilized throughout the decade.
- B. Black authors who were interviewed in the 1980s and 1990s were highly likely to cite Toni Morrison’s novels as a principal influence on their work.
- C. The novels written by Toni Morrison that were published after 1983 sold significantly more copies and received wider critical acclaim than the novels she wrote that were published before 1983.
- D. Works that were edited by Toni Morrison during her time at Random House displayed stylistic characteristics that distinguished them from works that were not edited by Morrison.

ID: 27ed6a27 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a finding that, if true, would support the scholar’s claim about Toni Morrison’s likely goal of strengthening the presence of Black writers on Random House’s list of published authors. The text explains that Morrison was the first Black woman to be an editor for Random House and that she was an editor there from 1967 to 1983. If it were true that Random House published a higher percentage of works by Black authors throughout the 1970s—during most of Morrison’s time working there—than it had previously published, that would suggest that Morrison may have made a deliberate effort to strengthen the presence of Black authors on the list of Random House’s published authors, thus supporting the scholar’s claim.

Choice B is incorrect because the scholar’s claim is about Morrison’s work as an editor at a publishing company and her likely effort to strengthen the presence of Black writers on that company’s list of published authors. It might be true that Black authors interviewed in the 1980s and 1990s often cited Morrison’s novels as an influence on their work, but that finding would simply suggest something about how those authors approached their work; it wouldn’t show that Morrison intended to increase the number of Black writers among the published authors specifically at Random House. Choice C is incorrect because the scholar’s claim is about Morrison’s work as an editor at a publishing company, not about her work as a novelist. Therefore, a finding that Morrison’s novels published after 1983 sold more copies and were more widely acclaimed than her earlier novels would have no bearing on the claim that as an editor Morrison made an effort to ensure that more Black writers were present on Random House’s list of published authors. Choice D is incorrect. Although the text discusses Morrison’s work as an editor at Random House, the scholar’s claim focuses on Morrison’s likely effort in that role to increase the number of Black writers present on

Random House's list of published authors, not on the influence she may have had on the content of the works she edited. Without knowing whether Morrison's stylistic influence led to more publications or if Morrison applied her influence specifically to works by Black writers, the finding that works edited by Morrison could be identified by stylistic characteristics would have no bearing on the claim that Morrison intended to strengthen the presence of Black writers among the published authors at Random House.

Question Difficulty: Hard

Question ID 4f0ae95a

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 4f0ae95a

Global Strontium  
Seawater Curve

| $^{87}\text{Sr}/^{86}\text{Sr}$ | Age (Ma) |
|---------------------------------|----------|
| 0.708980                        | 6.20     |
| 0.709000                        | 5.86     |
| 0.709020                        | 5.40     |
| 0.709040                        | 4.75     |
| 0.709060                        | 3.00     |

The late Hemphillian (Hh) North American Land Mammal Age includes the subdivisions Hh3, 6.8 million years ago (Ma) to 6 Ma, and Hh4, 6 Ma to 4.75 Ma. While mammalian fossils have indicated that Florida’s Montbrook Fossil Site (MFS) and Palmetto Fauna of the Bone Valley Region (PFBV) date to Hh4, a more precise determination of the sites’ ages has proved challenging. Stephanie R. Killingsworth et al. compared average ratios of strontium-87 to strontium-86 ( $^{87}\text{Sr}/^{86}\text{Sr}$ ) in fossil shark teeth from MFS and PFBV—0.709000 and 0.709028, respectively—to  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in the global strontium seawater curve, a record that shows how  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in seawater correspond to numerical ages and that is used to date fossils and, by extension, fossil sites. The researchers concluded that \_\_\_\_\_

- Which choice most effectively uses data from the table to complete the statement?
- A. mammalian fossil evidence offers less dating precision than do  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in fossil shark teeth and that PFBV likely was deposited closer to the Hh3-Hh4 boundary than was MFS.
  - B. the average  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in the fossil shark teeth from MFS and PFBV only partially support the site age estimates previously established through mammalian fossil evidence.
  - C. the average  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in the fossil shark teeth from MFS and PFBV resolve previous uncertainty about the sites’ relative ages by indicating that both sites were deposited contemporaneously during the late Hh.
  - D. the average  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in the fossil shark teeth from MFS and PFBV corroborate that both MFS and PFBV fall within Hh4 but suggest that PFBV was likely deposited more recently than MFS.

ID: 4f0ae95a Answer

Correct Answer: D

Rationale

Choice D is the best answer because it most effectively uses data from the table to complete the statement about the researchers’ conclusion about fossil shark teeth. The text states that mammalian fossil evidence has placed both MFS and PFBV

within Hh4 (6 Ma to 4.75 Ma) but “a more precise determination of the sites’ ages has proved challenging,” prompting Killingsworth and colleagues to attempt to date the sites by comparing average  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios for fossil shark teeth from MFS and PFBV to ratios in the global strontium seawater curve. Given that “ $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in seawater correspond to numerical ages,” a fossil whose  $^{87}\text{Sr}/^{86}\text{Sr}$  ratio corresponds to the ratio associated with a particular age in the global strontium seawater curve can be inferred to date to that age. According to the table, the  $^{87}\text{Sr}/^{86}\text{Sr}$  ratio of 0.709000 for fossil shark teeth from MFS corresponds to an age of 5.86 Ma, which falls within Hh4. By contrast, the table shows that the  $^{87}\text{Sr}/^{86}\text{Sr}$  ratio of 0.709028 for fossils from PFBV would fall between 0.709020 (5.40 Ma) and 0.709040 (4.75 Ma), indicating an age that falls within Hh4 but is more recent than MFS’s age of 5.86 Ma. The data therefore corroborate the conclusion that both sites fall within Hh4 while suggesting that PFBV was likely deposited more recently than MFS was.

Choice A is incorrect because the table indicates that MFS was deposited closer to the Hh3-Hh4 boundary than PFBV was, not the reverse. The table indicates that PFBV’s  $^{87}\text{Sr}/^{86}\text{Sr}$  ratio of 0.709028 corresponds to an age between 4.75 Ma and 5.40 Ma, while MFS’s  $^{87}\text{Sr}/^{86}\text{Sr}$  ratio of 0.709000 corresponds to an age of 5.86 Ma. Because the Hh3-Hh4 boundary occurs at 6 Ma, MFS was deposited closer to that boundary than PFBV was. In addition, the text doesn’t establish that mammalian fossil evidence offers less dating precision than  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios do; it states only that mammalian fossils have placed both MFS and PFBV in Hh4 and that more precise dating has proved challenging. Choice B is incorrect because it mischaracterizes the level of support for the site age estimates established through mammalian fossil evidence. The table indicates that the average  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios from MFS (0.709000) and PFBV (0.709028) both correspond to ages that fall within Hh4 (6 Ma to 4.75 Ma)—5.86 Ma for MFS and an age between 5.40 Ma and 4.75 Ma for PFBV. The  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios therefore fully support, rather than only partially support, the previous mammalian fossil evidence placing both sites within Hh4. Choice C is incorrect because the table indicates that the average  $^{87}\text{Sr}/^{86}\text{Sr}$  ratios in fossil shark teeth from MFS (0.709000) and PFBV (0.709028) correspond to different ages—5.86 Ma for MFS and an age between 5.40 Ma and 4.75 Ma for PFBV. Because the ratios point to different ages, they don’t support the conclusion that the fossils at the two sites were deposited contemporaneously, or at the same time.

Question Difficulty: Hard

# Question ID abcc9e23

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: abcc9e23

Properties of TRAPPIST-1 Exoplanets Compared to Earth's Properties

| Planet      | Orbital period (days) | Planet radius (Earth radii) |
|-------------|-----------------------|-----------------------------|
| Earth       | 365.26                | 1                           |
| TRAPPIST-1b | 1.51                  | 1.09                        |
| TRAPPIST-1d | 4.05                  | 0.77                        |
| TRAPPIST-1e | 6.1                   | 0.92                        |
| TRAPPIST-1f | 9.21                  | 1.04                        |

TRAPPIST-1 is a planetary system with a central red dwarf star and several Earth-sized exoplanets. Each planet in this system is so close in orbit to the star that the gravitational forces acting between the planet and the star cause the planet’s rotational period around its axis and orbital period around the star to be equal. For example, the orbital period of TRAPPIST-1e is \_\_\_\_\_

Which choice most effectively uses data from the table to complete the example?

- A. 1.51 days, which is the shortest rotational period of any of the TRAPPIST planets.
- B. 6.1 days, and its rotational period is also 6.1 days.
- C. 9.21 days, which is the same as the rotational period of TRAPPIST-1f.
- D. 6.1 days, and its rotational period is 0.92 days.

ID: abcc9e23 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it correctly uses data from the table to illustrate the relationship between orbital and rotational periods described in the text. For Earth and each of four TRAPPIST-1 exoplanets, the table provides the orbital period and radius (in relation to the radius of Earth). The text explains that for each TRAPPIST-1 exoplanet, gravitational forces cause the rotational period (how long the planet takes to spin once on its axis) to equal the orbital period (how long the planet takes to orbit the star). According to the table, TRAPPIST-1e has an orbital period of 6.1 days. Since the text states that the orbital and rotational periods are equal for these planets, TRAPPIST-1e’s rotational period must also be 6.1 days.

Choice A is incorrect because the table shows that TRAPPIST-1e has an orbital period (and thus a rotational period) of 6.1 days, not 1.51 days, which is the orbital period (and thus the rotational period) of TRAPPIST-1b. Furthermore, comparing the length of TRAPPIST-1e’s rotational period to those of the other exoplanets would not logically complete the example, which should illustrate

how the orbital and rotational periods of a planet in TRAPPIST-1 are the same length. Choice C is incorrect because the table shows that TRAPPIST-1e has an orbital period (and thus a rotational period) of 6.1 days, not 9.21 days, which the table shows is the orbital period (and thus rotational period) of TRAPPIST-1f. Additionally, comparing the rotational periods of two exoplanets would not logically complete the example, which should illustrate how the orbital and rotational periods of a planet in TRAPPIST-1 are the same length. Choice D is incorrect because although it correctly identifies TRAPPIST-1e's orbital period as 6.1 days, it incorrectly states that its rotational period is 0.92 days. This contradicts the text's statement that the orbital and rotational periods are equal for TRAPPIST-1 exoplanets. The value 0.92 actually represents TRAPPIST-1e's radius in relation to Earth's radius, not its rotational period.

Question Difficulty: Hard

# Question ID e796bd3e

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e796bd3e

In a research paper, a student criticizes some historians of modern African politics, claiming that they have evaluated Patrice Lumumba, the first prime minister of what is now the Democratic Republic of the Congo, primarily as a symbol rather than in terms of his actions.

Which quotation from a work by a historian would best illustrate the student’s claim?

- A. “Lumumba is a difficult figure to evaluate due to the starkly conflicting opinions he inspired during his life and continues to inspire today.”
- B. “The available information makes it clear that Lumumba’s political beliefs and values were largely consistent throughout his career.”
- C. “Lumumba’s practical accomplishments can be passed over quickly; it is mainly as the personification of Congolese independence that he warrants scholarly attention.”
- D. “Many questions remain about Lumumba’s ultimate vision for an independent Congo; without new evidence coming to light, these questions are likely to remain unanswered.”

ID: e796bd3e Answer

Correct Answer: C

Rationale

Choice C is the best answer because it illustrates the student’s claim about some historians viewing Lumumba primarily as a symbol. This quotation argues that Lumumba “warrants” (or deserves) “scholarly attention” as a symbol and not for his “practical accomplishments”—that is, his actions as prime minister—which “can be passed over quickly,” or dismissed as being of comparatively little importance. Thus, the quotation expresses the view that the student criticizes some historians for holding.

Choice A is incorrect. Although this quotation touches on the difficulty of evaluating Lumumba’s legacy, it doesn’t address how historians of modern African politics view him as a symbol. Choice B is incorrect. While this quotation mentions Lumumba’s political beliefs, it doesn’t discuss historians viewing him as a symbol. Choice D is incorrect. This quotation touches on Lumumba’s vision for his country, but it doesn’t discuss historians viewing him as a symbol.

Question Difficulty: Hard

# Question ID 3fd93f16

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 3fd93f16

Although it’s clear that Mars once had liquid water on its surface, astronomers have debated whether the evidence of ancient water reflects a prolonged phase of warm, wet conditions—the so-called wet and warm scenario—or a brief period of melting in an otherwise consistently frozen environment. Researchers Benjamin T. Cardenas and Michael P. Lamb recently added to this debate by using data from NASA and the Mars Orbiter Laser Altimeter to map the topography of what is now a large basin in Mars’s northern hemisphere. Cardenas and Lamb concluded that the wet and warm scenario is likely correct.

Which finding about the basin, if true, would most directly support Cardenas and Lamb’s conclusion?

- A. Its dimensions and shape indicate that it is unlikely to have formed as the result of an asteroid or comet impact.
- B. It has features suggesting that it once held an ocean that underwent gradual sea-level changes over an extended time.
- C. Its physical characteristics are most consistent with it having formed as a result of a massive but short-lived influx of liquid water.
- D. It is surrounded by channels that could have been formed either by running water or by flowing lava.

ID: 3fd93f16 Answer

Correct Answer: B

Rationale

Choice B is the best answer. This choice provides direct support for the researchers’ conclusion. If the basin once held an ocean of liquid water for "an extended time," that supports the "wet and warm scenario" on Mars, which involved a "prolonged" period of temperate conditions (and not just a "brief period of melting").

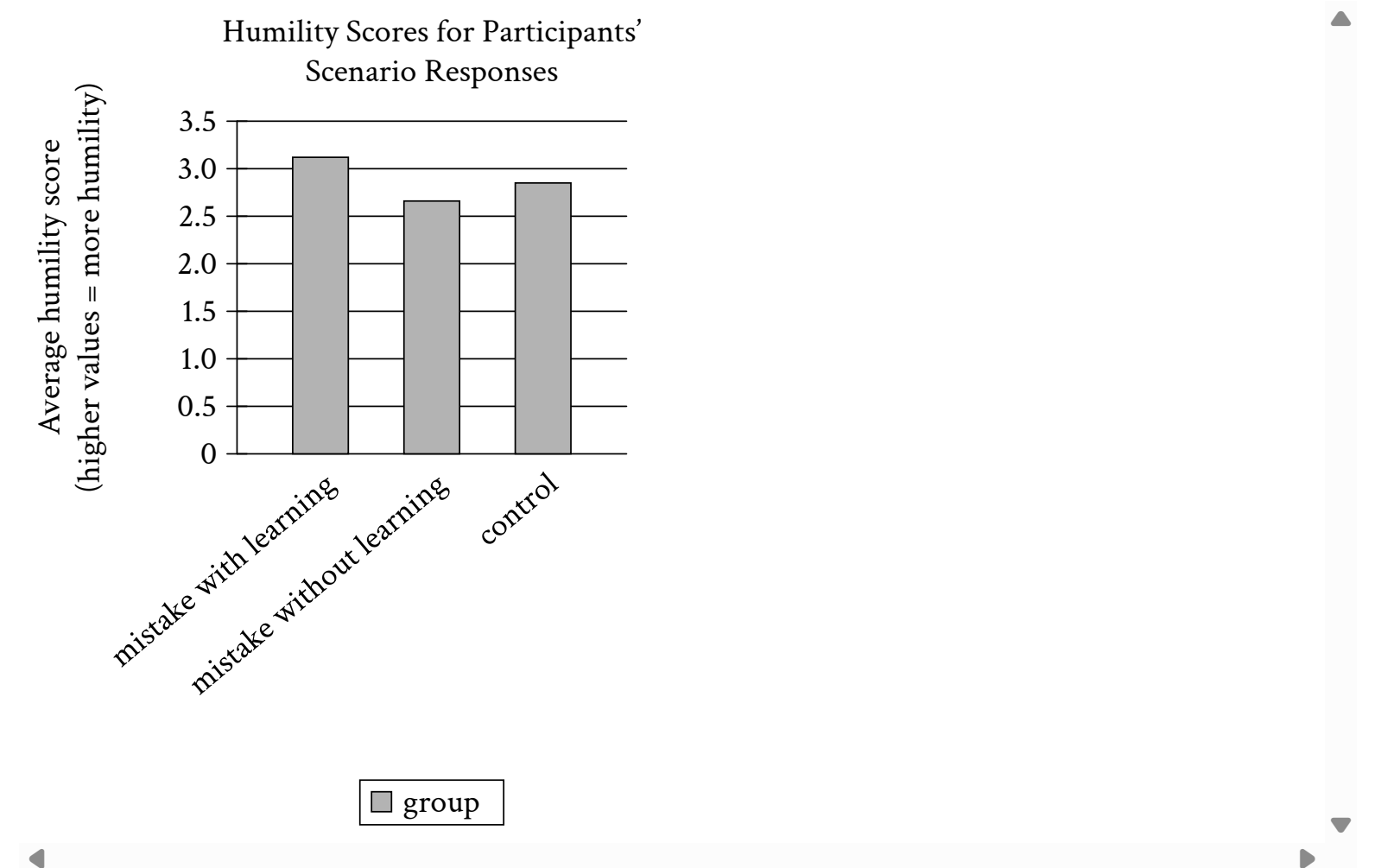
Choice A is incorrect. This choice doesn’t provide support for the researchers’ conclusions. The dimensions of the basin have little bearing on whether or not it was filled with liquid water, and for how long, and that’s the evidence that would support the "wet and warm" theory. Similarly, whether or not the basin was formed by an asteroid or a comet is irrelevant to the question of whether or not there was water in the basin for a long period. Choice C is incorrect. This choice does not provide support for the researchers’ conclusions, but rather the opposite. A "massive but short lived influx" of liquid water is not the same as a "prolonged phase of warm, wet conditions." It more reflects the opposing theory, a "brief period of melting." Choice D is incorrect. This choice does not support Cardenas and Lamb’s conclusion. Both theories about liquid water on Mars ("wet and warm" and "brief period of melting") involve flowing water, but lava isn’t mentioned at all in the text. Therefore, this choice doesn’t provide exclusive support for either theory.

Question Difficulty: Hard

Question ID 4e861b80

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
|----------------------|---------------------|-----------------------|---------------------|-------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: 4e861b80



Jia Hu and colleagues hypothesized that workplace leaders who reflect on lessons learned from past mistakes are likely to exhibit more humility than leaders who don't engage in such reflection. To test this, the team placed 301 managers in one of three groups. Participants in two experimental groups were asked to reflect on a mistake, one group focusing on a mistake that resulted in learning and the other group focusing on a mistake that didn't result in learning. Participants in a control group were asked to reflect on their daily routine. All the participants then described how they would respond to a workplace scenario. After evaluating the responses for evidence of humility, the researchers concluded that their hypothesis was correct.

Which choice best describes data in the graph that support the researchers' conclusion?

- A. None of the three groups' average humility scores exceeded 3.5.
- B. The managers in the control group exhibited only slightly less humility on average than the managers in the two experimental groups did.
- C. The managers who reflected on a past mistake that resulted in learning exhibited more humility on average than the managers in the other two groups did.

D. All three groups exhibited less humility on average than the researchers expected.

**ID: 4e861b80 Answer**

Correct Answer: C

Rationale

Choice C is the best answer because it describes data in the graph that support the researchers' conclusion that their hypothesis about workplace leaders and humility was correct. According to the text, Jia Hu and colleagues "hypothesized that workplace leaders who reflect on lessons learned from past mistakes are likely to exhibit more humility than leaders who don't engage in such reflection." The bar graph shows the humility scores for managers who participated in Jia Hu and colleagues' study. It shows average humility scores for managers who reflected on a past mistake that they learned from, managers who reflected on a past mistake that they didn't learn from, and managers who were in the control group that, according to the text, simply reflected on their daily routines. The graph shows that managers who reflected on a past mistake they learned from received an average humility score between 3.0 and 3.5. Both the control group and managers who reflected on a mistake they didn't learn from received a lower average humility score of between 2.5 and 3.0. Thus, the managers who reflected on a past mistake that resulted in learning exhibited more humility on average than the managers in the other two groups did. This supports the researchers' conclusion that their initial hypothesis that workplace leaders who reflect on past mistakes they learned from exercise greater humility was correct.

Choice A is incorrect. Although according to the graph it's true that none of the group's humility scores exceeded 3.5, this idea does not support the researchers' conclusion that their initial hypothesis was correct. The statement that none of the three groups' average humility scores exceeded 3.5 does not distinguish between those leaders who reflected on lessons learned from past mistakes and those who didn't, so it would not support Hu and colleagues' hypothesis that workplace leaders who reflect on past mistakes they learned from exercise greater humility. Choice B is incorrect. While the graph shows that managers in the control group did exhibit less humility than the experimental group of managers who reflected on a mistake they learned from, the graph also shows that the control group exhibited more (not less) humility than the experimental group that reflected on a mistake they didn't learn from. Furthermore, the idea that the managers in the control group exhibited only slightly less humility on average than the managers in the two experimental groups did would not support the researchers' conclusion that their initial hypothesis that workplace leaders who reflect on past mistakes they learned from exercise greater humility was correct. Choice D is incorrect because there is no indication in the graph that all three groups of participants exhibited less humility on average than the researchers expected. The graph and text don't cite any specific expectations that the researchers had with regard to the humility scores for each group.

Question Difficulty: Hard

Question ID 0062824d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 0062824d

“Ad recall” measures how memorable an advertising campaign is. To provide advertisers with information about their ads’ memorability, a social media site regularly surveys users about whether they remember ads they had recently interacted with on the site. In a study that drew on this survey data, advertising researcher Kristen Sussman and colleagues noted that different kinds of social media interactions involve different levels of cognitive engagement: commenting on or sharing a post is more cognitively demanding than is clicking on embedded links or on a “like” button. The researchers hypothesized that interactions indicating high levels of cognitive engagement with ad content would result in relatively high levels of ad recall.

Which finding, if true, would most directly support the researchers’ hypothesis?

- A. Users who interacted with an ad were much more likely to do so by clicking on the ad’s “like” button than they were to interact with the ad in any other way.
- B. Users who interacted with an ad were significantly more likely to purchase the advertised product at the time they saw the ad than were users who saw the ad but did not interact with it.
- C. Compared with users who clicked on links in an ad, users who commented on that same ad were significantly more likely to remember seeing the ad when surveyed two days later.
- D. Although users who shared an ad were highly likely to remember details from the ad when surveyed two days later, those same users tended to forget those details when surveyed again a week later.

ID: 0062824d Answer

Correct Answer: C

Rationale

Choice C is the best answer because it details a finding that, if true, would most directly support the researchers’ hypothesis about ad recall. According to the text, the researchers found that commenting on an ad that appears as a social media post is more cognitively demanding for users than simply clicking on embedded links in such an ad. The researchers then hypothesized that a high level of cognitive engagement with ad content would result in a high level of ad recall, or memory of ad content. This hypothesis would be supported by the finding that users who had commented on an ad were more likely to recall its content when surveyed two days later than users who had simply clicked on links in the same ad.

Choice A is incorrect. Although the text compares one form of social media user interaction with ads—clicking on the ad’s “like” button—with other forms of interaction—commenting on the ad and sharing it through social media—it does so in order to determine which form of interaction is associated with a higher level of ad recall. The text doesn’t note whether users were more likely to click on the “like” button than they were to interact with the ad in other ways. Choice B is incorrect because the text doesn’t indicate that the study attempted to track whether social media users purchased the advertised product or to determine which form of interaction with ad content was more strongly associated with making a purchase. Choice D is incorrect. Finding that social media users who shared an ad forgot the content one week later would weaken, not support, the researchers’ hypothesis that cognitive engagement is associated with a high level of recall.

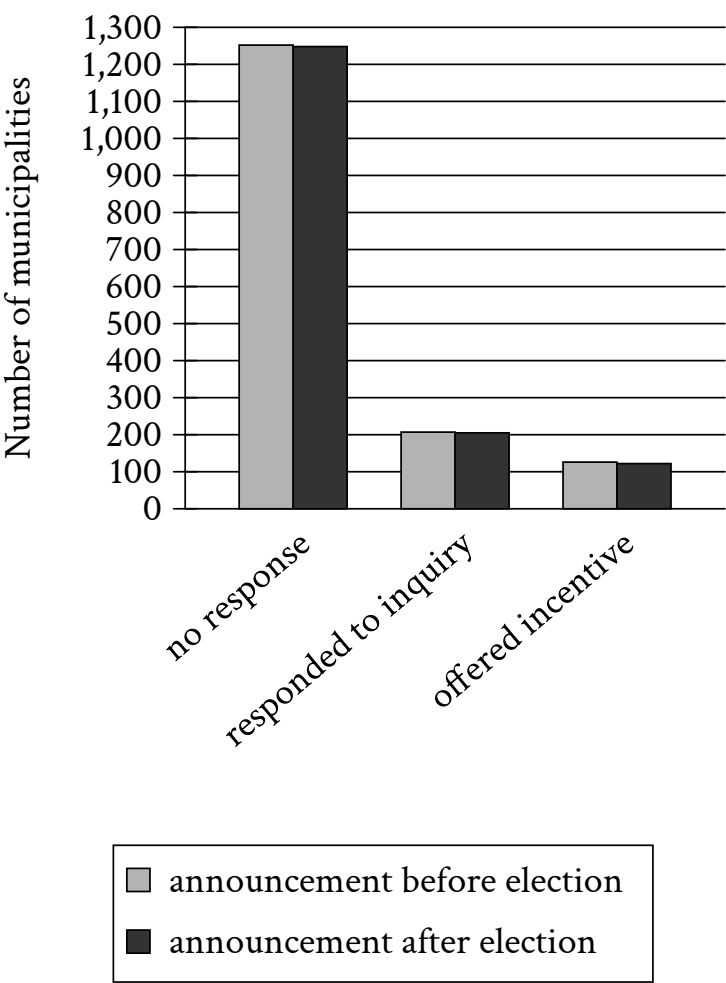


Question ID 7930ae78

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7930ae78

Municipalities’ Responses to Inquiries about Potential Incentives for Firm



In the United States, firms often seek incentives from municipal governments to expand to those municipalities. A team of political scientists hypothesized that municipalities are much more likely to respond to firms and offer incentives if expansions can be announced in time to benefit local elected officials than if they can’t. The team contacted officials in thousands of municipalities, inquiring about incentives for a firm looking to expand and indicating that the firm would announce its expansion on a date either just before or just after the next election.

Which choice best describes data from the graph that weaken the team’s hypothesis?

- A. A large majority of the municipalities that received an inquiry mentioning plans for an announcement before the next election didn’t respond to the inquiry.

- B. The proportion of municipalities that responded to the inquiry or offered incentives didn't substantially differ across the announcement timing conditions.
- C. Only around half the municipalities that responded to inquiries mentioning plans for an announcement before the next election offered incentives.
- D. Of the municipalities that received an inquiry mentioning plans for an announcement date after the next election, more than 1,200 didn't respond and only around 100 offered incentives.

**ID: 7930ae78 Answer**

Correct Answer: B

Rationale

Choice B is the best answer. The text explains that firms in the United States often look to municipal governments (local governing bodies) for incentives to expand the firms into those areas. The text then indicates that a team of political scientists hypothesized that those governing bodies are much more likely to respond and offer incentives when the expansion (if there's going to be one) can be announced before an election, since announcing a firm coming to their area can benefit local elected officials. However, the graph—which presents the results of the political scientists' inquiries to municipalities about incentives for a firm in two timing scenarios—shows that the proportion of municipalities that responded to the inquiry or offered incentives didn't substantially differ based on timing. According to the graph, about 200 municipalities responded to the inquiry and about 100 offered an incentive when the announcement could be made before an election (represented by the gray bars) and about 200 municipalities responded to the inquiry and about 100 offered an incentive when the announcement would be made after an election (represented by the black bars). These data weaken the team's hypothesis by demonstrating that municipalities are *not* much more likely to respond and offer incentives when the timing means they could announce an expansion before an election.

Choice A is incorrect. Although the graph does show that a large number of municipalities didn't respond to inquiries in the scenario in which an expansion announcement could be made before an election (represented by the gray bars), the text indicates that the team hypothesized that there would be a substantial difference in municipalities' actions based on timing, and information about only one timing scenario doesn't reveal anything about whether such a difference occurred. Choice C is incorrect. The graph does show that in the scenario in which an expansion announcement could be made before an election (represented by the gray bars), about 200 municipalities responded to inquiries and about 100 offered an incentive, but the text indicates that the team hypothesized that there would be a substantial difference in municipalities' actions based on timing, and information about only one timing scenario doesn't reveal anything about whether such a difference occurred. Choice D is incorrect. Although this choice accurately describes data from the graph for the scenario in which an expansion announcement would be made after an election (represented by the black bars), the text indicates that the team hypothesized that there would be a substantial difference in municipalities' actions based on timing, and information about only one timing scenario doesn't reveal anything about whether such a difference occurred.

Question Difficulty: Hard

# Question ID 6ac2b2f0

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6ac2b2f0

Boldly mixing elements of poetry, fiction, drama, philosophy, and manifesto, Puerto Rican writer Giannina Braschi creates cross-genre literature that explores themes such as immigration and independence. Her works have inspired responses from individuals across different fields and in a wide range of formats, from musical compositions and a comic book to architecture and furniture design. In an essay, a student asserts that the production of these diverse creations by others is reflective of Braschi’s own approach to crafting literature.

Which quotation from a scholarly review of Braschi’s work best supports the student’s claim?

- A. “Braschi is the focus of a 2020 collection of essays in which fifteen scholars from seven different countries delved into the linguistic and structural patterns of her writings.”
- B. “Braschi’s eagerness to push boundaries and blend genres within literature invites us to consider how other art forms might also engage with literature.”
- C. “Before settling in New York City, where she would go on to become a college professor, Braschi studied both literature and philosophy in several cities around the world.”
- D. “In addition to her creative literary works, Braschi has produced academic pieces analyzing writings by Miguel de Cervantes, Federico García Lorca, and other authors.”

ID: 6ac2b2f0 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents the quotation that best supports the student’s claim about Braschi. By describing how Braschi’s blending of genres invites her audience to think about how other art forms could also engage with literature, the quotation supports the idea that the diversity of responses to Braschi’s work reflects Braschi’s own approach to creating literature.

Choice A is incorrect because the quotation describes scholars from different countries writing essays about Braschi’s use of language in her writings; it doesn’t address how Braschi’s creation of cross-genre literature inspires diverse types of responses, which is the claim the student makes. Choice C is incorrect because the quotation focuses on the fact that Braschi studied in several different cities, which doesn’t address the student’s claim that Braschi’s creation of cross-genre literature inspires diverse types of responses. Choice D is incorrect because the quotation lists some of the authors who Braschi has written academic works about, which is irrelevant to the student’s claim that Braschi’s creation of cross-genre literature inspires diverse types of responses.

Question Difficulty: Hard

# Question ID 6d072f3c

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 6d072f3c

The Milky Way galaxy is composed of millions of stars in a relatively flat structure containing a thin disk and a thick disk. Based on computer simulations and analysis of data on the brightness, position, and chemical composition of about 250,000 stars in the thick disk (collected from two telescopes, one in China and one orbiting in space), astrophysicists Maosheng Xiang and Hans-Walter Rix claim that the thick disk of the Milky Way formed in two distinct phases rather than a single one.

Which finding, if true, would most directly support the researchers’ claim?

- A. The telescopes used by the researchers have detected stars of similar ages in galaxies other than the Milky Way.
- B. There’s an age difference of about 2 billion years between certain stars in the thick disk.
- C. The thin disk contains about twice as many stars that can be seen from Earth as the thick disk does.
- D. The stars in the Milky Way tend to have very similar chemical compositions.

ID: 6d072f3c Answer

Correct Answer: B

Rationale

Choice B is the best answer. A consistent age difference of 2 billion years between certain stars within the thick disk would support the claim that the thick disk formed in two phases instead of one, with the second phase beginning 2 billion years after the first phase.

Choice A is incorrect. This choice doesn’t support the claim. The researchers base their claim on their study of stars inside the thick disk of the Milky Way. This choice makes a comparison to stars in other galaxies, which isn’t relevant. Choice C is incorrect. This choice doesn’t support the claim. The researchers base their claim on their study of stars inside the thick disk. This choice makes a comparison to the thin disk, which isn’t relevant. Choice D is incorrect. This choice doesn’t support the claim. It’s too general. The claim is specifically about the thick disk.

Question Difficulty: Hard

Question ID a488586a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a488586a

Economists have demonstrated that herding—in which individuals converge on the same action by imitating the economic decisions of one or more peers—occurs among investors. Investigating whether herding also occurs among nations in matters of economic policy, Maru Etta-Nkwelle examined changes in the foreign currency reserves of emerging economies in various world regions in the years following the widespread financial crisis of 1997. Etta-Nkwelle posited that herding would manifest in regional peer countries converging on the same foreign currency accumulation rate regardless of each country’s observable circumstances. She found that Asian countries showed evidence of herding but African countries did not.

Based on the text, which finding, if true, would best account for the discrepancy Etta-Nkwelle observed?

- A. The majority of the currency held in reserves by the African countries was foreign currency, whereas the majority of the currency held in reserves by the Asian countries was domestic currency.
- B. Most of the African countries belonged to international economic unions that set individual foreign-currency accumulation policies for each member, whereas the Asian countries were largely free to set their own policies.
- C. The 1997 financial crisis resulted in immediate declines in many of the African countries’ foreign currency reserves, whereas the crisis had few short-term effects on the foreign currency reserves of most of the Asian countries.
- D. The African countries tended to accumulate a variety of foreign currencies for their reserves, whereas the Asian countries tended to favor a single foreign currency for their reserves.

ID: a488586a Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would best account for the discrepancy Etta-Nkwelle observed: Asian countries showed evidence of herding (converging on the same foreign currency accumulation rate as their regional peers), while African countries did not. The text defines herding as individuals converging on the same action by imitating their peers, which implies that the individuals choose to do so rather than being compelled to follow a particular course of action. This choice indicates that most of the African countries belonged to economic unions that dictated such monetary policies, whereas Asian countries were free to choose, and the similarity among the Asian countries suggests that herding can account for that similarity. The finding thus identifies a relevant difference between the two regions that accounts for the discrepancy.

Choice A is incorrect. Although this choice is related to reserves of foreign currency, the fact that African and Asian countries had different mixes of foreign and domestic currency reserves does not address the rate of foreign currency accumulation or whether herding is a contributing factor determining the rate of accumulation. Choice C is incorrect. This choice does not address currency accumulation. And although it describes differences in the currency reserves of African and Asian countries shortly after the 1997 financial crisis, it does not address the rate of foreign currency accumulation nor how similar the nations were in this regard to their neighboring countries. Choice D is incorrect. Although this choice discusses the variety of foreign currencies

accumulated by African countries as compared with Asian countries, it does not discuss the rate of foreign currency accumulation nor whether herding is a factor determining the rate of accumulation.

Question Difficulty: Hard

Question ID eab5ee3a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: eab5ee3a

Almost all works of fiction contain references to the progression of time, including the time of day when events in a story take place. In a 2020 study, Allen Kim, Charuta Pethe, and Steven Skiena claim that an observable pattern in such references reflects a shift in human behavior prompted by the spread of electric lighting in the late nineteenth century. The researchers drew this conclusion from an analysis of more than 50,000 novels spanning many centuries and cultures, using software to recognize and tally both specific time references—that is, clock phrases, such as 7 a.m. or 2:30 p.m.—and implied ones, such as mentions of meals typically associated with a particular time of day.

Which finding from the study, if true, would most directly support the researchers’ conclusion?

- A. Novels published after the year 1800 include the clock phrase 10 a.m. less often than novels published before the year 1800 do.
- B. Novels published after 1880 contain significantly more references to activities occurring after 10 p.m. than do novels from earlier periods.
- C. Among novels published in the nineteenth century, implied time references become steadily more common than clock phrases as publication dates approach 1900.
- D. The time references of noon (12 p.m.) and midnight (12 a.m.) are used with roughly the same frequency in the novels.

ID: eab5ee3a Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support the researchers’ conclusion that an observable pattern in time references in novels reflects a shift in human behavior prompted by the spread of electric lighting in the late nineteenth century. If novels published after 1880 contain significantly more references to activities occurring after 10 p.m. than novels from earlier periods do, this would suggest a change in human behavior and daily routines enabled by the availability of electric lighting. Before electric lighting—which provided illumination more easily than other available forms of light—many activities ceased after nightfall, so references to late-night activities would be less common in earlier novels. An increase in such references after 1880 would align with the researchers’ conclusion, reflecting an increase in late-night activities made possible by electric lighting.

Choice A is incorrect because a decrease in references to 10 a.m. after the year 1800 would not support the researchers’ conclusion involving a shift in human behavior prompted by the spread of electric lighting toward the end of the 1800s. The time of 10 a.m. is in the morning and, in most places, characterized by daylight, so a change in references to that time would not be clearly linked to the impact of electric lighting. Choice C is incorrect because while an increase in implied time references relative to clock phrases in nineteenth-century novels could suggest a change in writing style or conventions, it does not directly support the conclusion involving a shift in human behavior prompted by the spread of electric lighting. The text indicates that the researchers’ conclusion is based on the content of the time references themselves, not the phrasing used. Choice D is incorrect. If

references to noon and midnight are used with roughly the same frequency in all the novels analyzed by the researchers, this would reflect a lack of change in human behavior with regard to time and therefore would not support the researchers' conclusion involving a shift in human behavior that occurred in response to the spread of electric lighting.

Question Difficulty: Hard

Question ID 8dd98cfa

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8dd98cfa

A member of the Otomi, an Indigenous people in Central Mexico, Octavio Medellín immigrated to the United States as a child, and his sculpture bears the impress of traditions on both sides of the border: US-based modernist sculpture, Mexican modernist painting, Otomi art, and the ancient sculpture of other Mexican Indigenous peoples, including the Maya. In his 1950 masterpiece *History of Mexico*, Medellín fuses these influences into a style so idiosyncratic that it resists efforts to view his work through the lens of nationality or cultural identity. Artists, he insisted, should strive for individual expression, even as they draw inspiration from their heritage and the communities where they live and work.

Which quotation from an art critic most directly challenges the underlined claim in the text?

- A. "Although a number of ancient Indigenous artistic traditions pictured human forms in profile, the forms populating the surface of *A History of Mexico* suggest a specifically Maya influence."
- B. "In *A History of Mexico*, the synthesis of ancient and modernist traditions functions as a stylistic parallel to the work's subject matter: a survey of centuries of Mexican history."
- C. "Many critics focus on Indigenous influences in *A History of Mexico* and other key works by Medellín to the exclusion of influences from non-Indigenous art."
- D. "While *A History of Mexico* features modernist motifs, it relies primarily on angular human forms in profile—a staple of Maya sculpture—and thus invites classification as Indigenous art."

ID: 8dd98cfa Answer

Correct Answer: D

Rationale

Choice D is the best answer. This critic challenges the claim by arguing that *A History of Mexico* is not so idiosyncratic (unique) as to resist classification because its use of Maya-style human profiles actually "invites classification as Indigenous art." Therefore, according to this critic, the work can be viewed, at least partially, through a lens of national or cultural identity.

Choice A is incorrect. While it describes the Maya influence on a particular aspect of *A History of Mexico*, this quotation doesn't push back on Medellín's "idiosyncratic" (unique) style, nor does it try to categorize the entire work into a single cultural tradition. Choice B is incorrect. This choice doesn't directly challenge the underlined claim, but rather supports it. It suggests that the work effectively blends a variety of artistic products to create a single work that can't be defined by any one tradition. Instead, the work recalls many centuries of history and culture all at once. Choice C is incorrect. This choice supports rather than challenges the underlined claim. The quotation argues that other critics focus too much on Indigenous influences on the artwork instead of viewing all of the influences equally—that they should instead be viewing the work as an idiosyncratic whole instead of through one or two narrow cultural lenses.

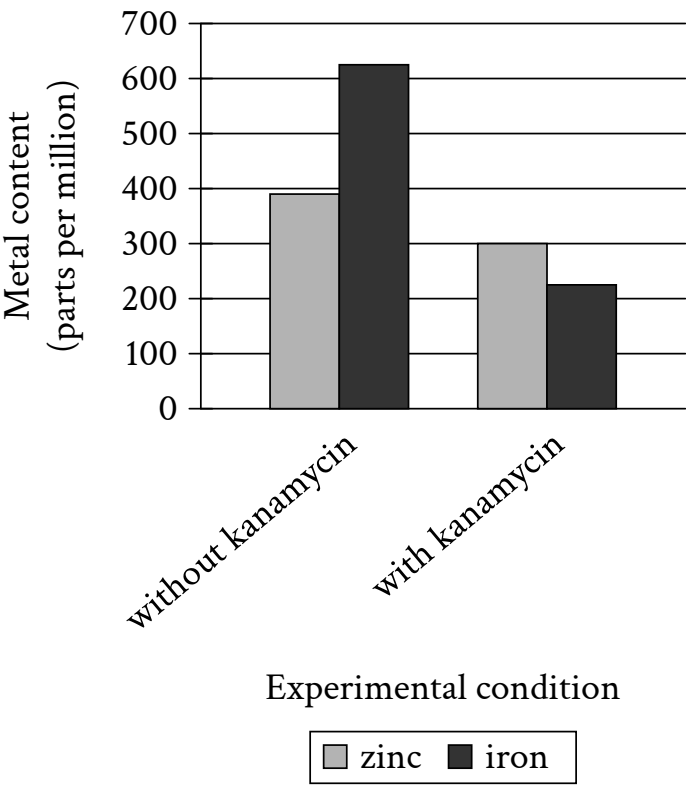
Question Difficulty: Hard

Question ID ed594f26

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: ed594f26

Metal Content of Plants with and without Kanamycin Exposure



Many plants lose their leaf color when exposed to kanamycin, an antibiotic produced by some soil microorganisms. Spelman College biologist Mentewab Ayalew and her colleagues hypothesized that plants’ response to kanamycin exposure involves altering their uptake of metals, such as iron and zinc. The researchers grew two groups of seedlings of the plant *Arabidopsis thaliana*, half of which were exposed to kanamycin and half of which were a control group without exposure to kanamycin, and measured the plants’ metal content five days after germination.

Which choice best describes data in the graph that support Ayalew and her colleagues’ hypothesis?

- A. The control plants contained higher levels of zinc than iron, but plants exposed to kanamycin contained higher levels of iron than zinc.
- B. Both groups of plants contained more than 200 parts per million of both iron and zinc.
- C. Zinc levels were around 300 parts per million in the control plants but nearly 400 parts per million in the plants exposed to kanamycin.

D. The plants exposed to kanamycin showed lower levels of iron and zinc than the control plants did.

**ID: ed594f26 Answer**

Correct Answer: D

Rationale

Choice D is the best answer because it best describes data in the graph supporting Ayalew and her colleagues' hypothesis that plants' response to kanamycin exposure involves altering their uptake of metals. The graph compares the metal content of two groups of plants, one with kanamycin exposure and a control group without such exposure. The amount of zinc in plants without kanamycin exposure is around 400 parts per million, while the amount of zinc in plants with kanamycin exposure is lower, at around 300 parts per million. Similarly, the amount of iron in plants without kanamycin exposure is a little over 600 parts per million, while the amount of iron in plants with kanamycin exposure is lower, at a little over 200 parts per million. Thus, the graph shows that plants with kanamycin exposure have significantly lower levels of both iron and zinc than the plants without kanamycin exposure. This is evidence supporting the hypothesis that kanamycin exposure results in plants altering their uptake of metals.

Choice A is incorrect because the graph shows that control plants contained higher levels of iron than zinc, not higher levels of zinc than iron; similarly, the plants exposed to kanamycin contained higher levels of zinc than iron, not higher levels of iron than zinc. Choice B is incorrect. Though the claim that both groups of plants contained more than 200 parts per million of both iron and zinc is supported by the graph, this alone does not state whether plants with kanamycin exposure have a different metal content than plants without kanamycin exposure. Choice C is incorrect. The graph shows that the zinc levels for the control plants (those without kanamycin exposure) were around 400 parts per million, not 300 parts per million, and that the zinc levels for plants with kanamycin exposure were around 300 parts per million, not 400 parts per million.

Question Difficulty: Hard

Question ID 85539948

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 85539948

Many archaeologists will tell you that categorizing excavated fragments of pottery by style, period, and what objects they belong to relies not only on standard criteria, but also on instinct developed over years of practice. In a recent study, however, researchers trained a deep-learning computer model on thousands of images of pottery fragments and found that it could categorize them as accurately as a team of expert archaeologists. Some archaeologists have expressed concern that they might be replaced by such computer models, but the researchers claim that outcome is highly unlikely.

Which finding, if true, would most directly support the researchers’ claim?

- A. In the researchers’ study, the model was able to categorize the pottery fragments much more quickly than the archaeologists could.
- B. In the researchers’ study, neither the model nor the archeologists were able to accurately categorize all the pottery fragments that were presented.
- C. A survey of archaeologists showed that categorizing pottery fragments limits the amount of time they can dedicate to other important tasks that only human experts can do.
- D. A survey of archaeologists showed that few of them received dedicated training in how to properly categorize pottery fragments.

ID: 85539948 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would support the researchers’ claim that archaeologists are unlikely to be replaced by certain computer models. The text explains that although archaeologists hold that categorizing pottery fragments relies on both objective criteria and instinct developed through direct experience, researchers have found that a computer model can categorize the fragments with the same degree of accuracy as the humans can—a finding that has caused some archaeologists to worry that their own work won’t be needed any longer. If survey results indicate that categorizing pottery fragments limits the amount of time archaeologists can dedicate to other important tasks that only human experts can do, that would mean that computer models aren’t able to do all of the important things archaeologists do, thus supporting the researchers’ claim that computer models are unlikely to replace human archaeologists.

Choice A is incorrect because if it were true that the computer model could categorize the pottery fragments much more quickly than the archaeologists could, that would weaken the researchers’ claim that archaeologists are unlikely to be replaced by certain computer models, since it would demonstrate that the models could conduct the archaeologists’ work not only with equal accuracy but also at a faster pace. Choice B is incorrect because the inability of both the computer model and the archaeologists to accurately categorize all of the pottery fragments presented wouldn’t support the researchers’ claim that archaeologists are unlikely to be replaced by certain computer models. The text indicates that some archaeologists are worried because the computer model’s accuracy is equal to their own, and that could be the case whether both were perfectly accurate or were unable

to achieve complete accuracy. Choice D is incorrect because survey results showing that few archaeologists received special training in properly categorizing pottery fragments wouldn't support the researchers' claim that archaeologists are unlikely to be replaced by certain computer models. The amount of special training in categorizing pottery fragments that archaeologists have received has no direct bearing on whether computer models' success at categorizing fragments will lead to the models replacing the archaeologists.

Question Difficulty: Hard

Question ID 8027d835

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8027d835

| Mean Time (in Seconds) Spent per Flower for Four Pollinator Genera |                               |                                |                                 |                                  |
|--------------------------------------------------------------------|-------------------------------|--------------------------------|---------------------------------|----------------------------------|
| Pollinator genus                                                   | Seconds per intact pin flower | Seconds per damaged pin flower | Seconds per intact thrum flower | Seconds per damaged thrum flower |
| <i>Habropoda</i>                                                   | 2.7                           | 5.4                            | 4.1                             | 9.5                              |
| <i>Osmia</i>                                                       | 5.2                           | 8.2                            | 7.1                             | 8.3                              |
| <i>Pierid</i>                                                      | 2.6                           | 4.0                            | 2.4                             | 1.9                              |
| <i>Xylocopa</i>                                                    | 2.3                           | 2.8                            | 2.5                             | 2.2                              |

To study how floral damage affects the behavior of pollinators, such as bees, a team of researchers punched holes in the floral tissue of flowers from the vine yellow jessamine (*Gelsemium sempervirens*), a plant that produces flowers that have either a long pistil and a short stamen (pin morphs) or a short pistil and a long stamen (thrum morphs). The researchers then compared the time different insect pollinators spent visiting intact pin and thrum flowers to the time such pollinators spent visiting the artificially damaged pin and thrum flowers. The researchers concluded that the effect of floral damage on time spent per flower varied by both floral morph and the genus of the pollinator.

- Which choice best describes data from the table that support the researchers’ conclusion?
- A. For pin flowers, damage led to longer times per flower in all pollinator genera, whereas for thrum flowers, damage led to longer times per flower only in *Habropoda* and *Osmia*.
  - B. Compared with pollinators belonging to the genus *Osmia*, pollinators belonging to the genus *Xylocopa* spent less time on damaged pin flowers but more time on damaged thrum flowers.
  - C. Damage led to shorter times per thrum flower in three pollinator genera (*Osmia*, *Pierid*, and *Xylocopa*), whereas it led to longer times per thrum flower in one pollinator genus (*Habropoda*).
  - D. Pollinators belonging to the genus *Habropoda* spent 2.7 seconds on intact pin flowers and 4.1 seconds on intact thrum flowers.

ID: 8027d835 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it describes data from the table that support the researchers’ conclusion that the effect of floral damage on time spent per flower varied by both floral morph and the genus of the pollinator. The table presents the average time pollinators spent per floral morph. The data in the table shows that for pin flowers, the average time spent per flower by all pollinator genera was higher for flowers that had been artificially damaged than for intact flowers. By contrast, for thrum flowers,

the difference in time spent on intact and damaged flowers is seen for only some pollinator genera. This supports the researchers' conclusion that both floral morph and the genus of the pollinator are factors involved in the effect that floral damage has on time pollinators spend per flower.

Choice B is incorrect. The table shows that pollinators belonging to the genus *Xylocopa* spent less time on both damaged pin flowers and damaged thrum flowers than pollinators belonging to the genus *Osmia* did. Choice C is incorrect. The table shows that the artificial damage to the thrum flowers led to shorter average times spent by pollinators on those flowers for only two of the four pollinator genera represented in the table, not three. Furthermore, this choice doesn't address the effect the artificial damage had on pin flowers; thus, even if accurate, this evidence doesn't support the researchers' conclusion that both floral morph and pollinator genus affect time spent per flower when a flower has been damaged. Choice D is incorrect. While this statement is true based on the information in the table, it doesn't provide evidence that supports the researchers' conclusion that the effect of floral damage on time spent per flower varied by both floral morph and the genus of the pollinator because this choice provides information only about how much time one pollinator genus spent on intact flowers.

Question Difficulty: Hard

# Question ID e2b32eaf

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e2b32eaf

In the 1970s, a roughly 60,000-year-old piece of hyena bone marked with nine notches was discovered at a site in western France once inhabited by Neanderthals. Although many believe that only modern humans developed systems for notating numbers, one archaeologist asserts that this artifact may be a sign that Neanderthals also recorded numerical information. The notches on the bone are unevenly spaced but approximately parallel, and microscopic analysis reveals that they were made with a single stone tool; according to the archaeologist, this suggests that the notches were all made at one time by one individual as a means of counting something.

Which finding, if true, would most directly weaken the underlined claim?

- A. Parallel lines are a common feature in modern humans’ early systems for recording numerical information.
- B. More than nine approximately parallel notches made with a different stone tool are present on another artifact found at a site in western France.
- C. It would have taken careful effort to make evenly spaced lines on bone with the stone tools typically used by Neanderthals.
- D. Decorative art discovered at another Neanderthal site in western France primarily features patterns of unevenly spaced parallel lines.

ID: e2b32eaf Answer

Correct Answer: D

Rationale

Choice D is the best answer. The archeologist bases their claim on the fact that the hyena bone features unevenly spaced parallel notches. But if unevenly spaced parallel lines were found on "decorative art" at another Neanderthal site, it would suggest that the hyena bone is probably decorative art as well—not a counting tool.

Choice A is incorrect. This choice doesn’t weaken the underlined claim. If anything, it might actually strengthen the claim: assuming we can make an inference about Neanderthals using a fact about early humans, it provides more support for the idea that the person who made the notches was counting something. Choice B is incorrect. This choice doesn’t weaken the underlined claim. The fact that another artifact had parallel notches made with a different stone tool doesn’t tell us anything about the use of either artifact. For all we know, they could both have been used for counting. Choice C is incorrect. This choice doesn’t weaken the underlined claim. The fact that it took effort to make the lines doesn’t tell us anything about what the lines were for.

Question Difficulty: Hard

# Question ID 9ef8baf9

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 9ef8baf9

The linguistic niche hypothesis (LNH) posits that the exotericity of languages (how prevalent non-native speakers are) and grammatical complexity are inversely related, which the LNH ascribes to attrition of complex grammatical rules as more non-native speakers adopt the language but fail to acquire those rules. Focusing on two characteristics that are positive indices of grammatical complexity, fusion (when new phonemes arise from the merger of previously distinct ones) and informativity (languages’ capacity for meaningful variation), Olena Shcherbakova and colleagues conducted a quantitative analysis for more than 1,300 languages and claim the outcome is inconsistent with the LNH.

Which finding, if true, would most directly support Shcherbakova and colleagues’ claim?

- A. Shcherbakova and colleagues’ analysis showed a slightly negative correlation between grammatical complexity and fusion and between grammatical complexity and informativity.
- B. Shcherbakova and colleagues’ analysis showed a slightly negative correlation between grammatical complexity and exotericity.
- C. Shcherbakova and colleagues’ analysis showed a slightly positive correlation between grammatical complexity and fusion.
- D. Shcherbakova and colleagues’ analysis showed a slightly positive correlation between fusion and exotericity and between informativity and exotericity.

ID: 9ef8baf9 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would support Shcherbakova and colleagues’ claim that the outcome of their study is inconsistent with the linguistic niche hypothesis (LNH). The text explains that the LNH holds that there is an inverse relationship between the prevalence of non-native speakers of a language (exotericity) and the grammatical complexity of that language—that is, that as the number of non-native speakers increases, grammatical complexity decreases, and vice versa. According to the text, Shcherbakova and colleagues focused on two positive indications of grammatical complexity—fusion and informativity—and analyzed their occurrence in over 1,300 languages. If the researchers found a slightly positive correlation between fusion and exotericity and between informativity and exotericity—meaning that to some extent, grammatical complexity increases as the number of non-native speakers of a language increases—their outcome would not be consistent with the assumption that exotericity and grammatical complexity are inversely related (the LNH).

Choice A is incorrect because it wouldn’t be possible to say that a finding of a slightly negative correlation between grammatical complexity and both fusion and informativity is inconsistent or consistent with the LNH, since the finding would address only grammatical complexity (given that fusion and informativity are aspects of grammatical complexity) and wouldn’t move beyond that factor to address its relationship to the prevalence of non-native speakers of a language (exotericity), which is the relationship the LNH focuses on. Choice B is incorrect because a finding of a slightly negative correlation between grammatical complexity and the prevalence of non-native speakers of a language (exotericity)—meaning that as the number of non-native

speakers increases, grammatical complexity somewhat decreases, and vice versa—would be consistent, not inconsistent, with the LNH, since the text indicates that according to the LNH, there is an inverse relationship between grammatical complexity and exotericity; a negative correlation reflects an inverse relationship. Choice C is incorrect because it wouldn't be possible to say that a finding of a slightly positive correlation between grammatical complexity and fusion is inconsistent or consistent with the LNH, since the finding would address only grammatical complexity (given that fusion is a positive indication of grammatical complexity) and wouldn't move beyond that factor to address its relationship to the prevalence of non-native speakers of a language (exotericity), which is the relationship the LNH focuses on.

Question Difficulty: Hard

Question ID 8cdf1f62

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8cdf1f62

Body Length, Filter Time, and Lunges per Dive for Four Whale Species

| Whale species | Typical adult body length (meters) | Average time to filter all engulfed water (seconds) | Average number of lunges per dive deeper than 50 meters |
|---------------|------------------------------------|-----------------------------------------------------|---------------------------------------------------------|
| fin           | 18–22                              | 31.30                                               | 3.95                                                    |
| humpback      | 11–17                              | 17.12                                               | 6.28                                                    |
| minke         | 7–10                               | 8.88                                                | 7.48                                                    |
| blue          | 24–34                              | 60.27                                               | 4.02                                                    |

Some whale species practice lunge feeding, in which they lunge toward prey with their mouths open at wide angles, collect the prey and the surrounding water, and then filter out the water through baleen plates in their mouths. Although the volume of water engulfed increases with whales’ body length, the surface area of whales’ baleen plates, which influences the rate at which water can be filtered, does not increase with body length to the same degree, which helps explain why \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. minke whales and humpback whales show similar average filter times.
- B. humpback whales show an average of 6.28 lunges per dive.
- C. fin whales show a longer average filter time than minke whales do.
- D. blue whales show the longest average filter time and the highest average number of lunges per dive.

ID: 8cdf1f62 Answer

Correct Answer: C

Rationale

Choice C is the best answer. To support the claim, we need to show that longer whales take more time to filter all the water they engulf than shorter whales do. This choice accurately reflects that a longer whale (the fin whale) takes more time to filter engulfed water (31.30 seconds on average) compared to a shorter whale (the minke whale, which only took 8.88 seconds on average).

Choice A is incorrect. The table shows that minke whales take an average of 8.88 seconds to filter engulfed water, while humpback whales take an average of 17.12 seconds to complete the same task. Choice B is incorrect. This choice doesn’t reflect the claim about baleen plates. The claim explains why whales of differing lengths take different amounts of time to filter engulfed water. This choice doesn’t compare whales of different lengths, and it focuses on the number of lunges, which isn’t shown to be relevant to filter time. Choice D is incorrect. The table shows that blue whales average 4.02 lunges per dive, which is not the highest average among the whales in the table.



# Question ID 033486ee

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 033486ee

*Barchester Towers* is an 1857 novel by Anthony Trollope. In the novel, Trollope’s portrayal of Dr. Proudie underscores the character’s exaggerated sense of his own abilities: \_\_\_\_\_

Which quotation from *Barchester Towers* most effectively illustrates the claim?

- A. “It must not...be taken as proved that Dr. Proudie was a man of great mental powers, or even of much capacity for business, for such qualities had not been required in him.”
- B. “[Dr. Proudie] was comparatively young, and had, as he fondly flattered himself, been selected as possessing such gifts, natural and acquired, as must be sure to recommend him to a yet higher notice.”
- C. “[Dr. Proudie’s] residence in the metropolis, rendered necessary by duties thus entrusted to him, his high connexions, and the peculiar talents and nature of the man, recommended him to persons in power.”
- D. “[Dr. Proudie] was certainly possessed of sufficient tact to answer the purpose for which he was required without making himself troublesome.”

ID: 033486ee Answer

Correct Answer: B

Rationale

Choice B is the best answer. In this quotation, Dr. Proudie is described as "fondly flatter[ing] himself" that he has gifts that "must be sure to recommend him to a yet higher notice." In other words, he expects his skills to push him to greater fame and success. This implies an exaggerated sense of his own abilities, which matches the claim we’re trying to support.

Choice A is incorrect. This quotation doesn’t describe Proudie’s view of himself, nor does it paint him in an especially flattering light. Instead, by saying his mental powers and business skill are not "proved," it implies that he is actually dim-witted and bad at business. Choice C is incorrect. This choice describes Proudie’s closeness to power and importance, but it doesn’t show what Proudie thinks of himself. Proudie is not describing himself or his abilities here. The narrator is. Choice D is incorrect. While this quotation offers Proudie very mild praise, it doesn’t show what Proudie thinks of himself or his own abilities, which is what the claim focuses on.

Question Difficulty: Hard

# Question ID 3bfd6a3a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 3bfd6a3a

Credited Film Output of James Young Deer, Dark Cloud, Edwin Carewe, and Lillian St. Cyr

| Individual                 | Years active | Number of films known and commonly credited          |
|----------------------------|--------------|------------------------------------------------------|
| James Young Deer           | 1909–1924    | 33 (actor), 35 (director), 10 (writer)               |
| Dark Cloud                 | 1910–1920    | 35 (actor), 1 (writer)                               |
| Edwin Carewe               | 1912–1934    | 47 (actor), 58 (director), 20 (producer), 4 (writer) |
| Lillian St. Cyr (Red Wing) | 1908–1921    | 66 (actor)                                           |

Some researchers studying Indigenous actors and filmmakers in the United States have turned their attention to the early days of cinema, particularly the 1910s and 1920s, when people like James Young Deer, Dark Cloud, Edwin Carewe, and Lillian St. Cyr (known professionally as Red Wing) were involved in one way or another with numerous films. In fact, so many films and associated records for this era have been lost that counts of those four figures’ output should be taken as bare minimums rather than totals; it’s entirely possible, for example, that \_\_\_\_\_

Which choice most effectively uses data from the table to complete the example?

- A. Dark Cloud acted in significantly fewer films than did Lillian St. Cyr, who is credited with 66 performances.
- B. Edwin Carewe’s 47 credited acting roles includes only films made after 1934.
- C. Lillian St. Cyr acted in far more than 66 films and Edwin Carewe directed more than 58.
- D. James Young Deer actually directed 33 films and acted in only 10.

ID: 3bfd6a3a Answer

Correct Answer: C

Rationale

Choice C is the best answer because it uses data from the table to effectively exemplify the idea that the film outputs of the four individuals included in the table should be considered bare minimums—that is, that we should assume that the individuals actually had higher outputs than those recorded. The table presents the years during which the individuals were active and the number of known films the individuals are credited in. The table indicates that Lillian St. Cyr has 66 film credits as an actor and that Edwin Carewe has 58 film credits as a director; it follows that if some films and records for the era were lost, it’s possible that Lillian St. Cyr acted in far more than 66 films and that Edwin Carewe directed more than 58 films.

Choice A is incorrect because it doesn’t effectively exemplify the idea that the film outputs of the four individuals included in the table should be considered bare minimums. Rather than addressing the idea that the individuals likely had higher outputs than those presented in the table, this choice simply compares data from the table to make the point that Dark Cloud has fewer credited acting roles than Lillian St. Cyr (35 and 66, respectively). Choice B is incorrect because it misrepresents data from the

table, even though it may exemplify the idea that the film outputs of the four individuals included in the table should be considered bare minimums by implying that Edwin Carewe acted in more than 47 films. The table indicates that Edwin Carewe was active from 1912 to 1934, meaning that his 47 credited acting roles were in films made before or during 1934, not after that time. Choice D is incorrect because it doesn't effectively exemplify the idea that the film outputs of the four individuals included in the table should be considered bare minimums. Instead of addressing the idea that the individuals likely had higher outputs than those recorded, this choice suggests that James Young Deer actually acted in and directed fewer films than presented in the table (only 33 known films as a director instead of 35, and only 10 known films as an actor instead of 33).

Question Difficulty: Hard

Question ID a26ea54c

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a26ea54c

Estimates of Tyrannosaurid Bite Force

| Study                | Year | Estimation method               | Approximate bite force (newtons) |
|----------------------|------|---------------------------------|----------------------------------|
| Cost et al.          | 2019 | muscular and skeletal modeling  | 35,000–63,000                    |
| Gignac and Erickson  | 2017 | tooth-bone interaction analysis | 8,000–34,000                     |
| Meers                | 2002 | body-mass scaling               | 183,000–235,000                  |
| Bates and Falkingham | 2012 | muscular and skeletal modeling  | 35,000–57,000                    |

The largest tyrannosaurids—the family of carnivorous dinosaurs that includes *Tarbosaurus*, *Albertosaurus*, and, most famously, *Tyrannosaurus rex*—are thought to have had the strongest bites of any land animals in Earth’s history. Determining the bite force of extinct animals can be difficult, however, and paleontologists Paul Barrett and Emily Rayfield have suggested that an estimate of dinosaur bite force may be significantly influenced by the methodology used in generating that estimate.

Which choice best describes data from the table that support Barrett and Rayfield’s suggestion?

- A. The study by Meers used body-mass scaling and produced the lowest estimated maximum bite force, while the study by Cost et al. used muscular and skeletal modeling and produced the highest estimated maximum.
- B. In their study, Gignac and Erickson used tooth-bone interaction analysis to produce an estimated bite force range with a minimum of 8,000 newtons and a maximum of 34,000 newtons.
- C. The bite force estimates produced by Bates and Falkingham and by Cost et al. were similar to each other, while the estimates produced by Meers and by Gignac and Erickson each differed substantially from any other estimate.
- D. The estimated maximum bite force produced by Cost et al. exceeded the estimated maximum produced by Bates and Falkingham, even though both groups of researchers used the same method to generate their estimates.

ID: a26ea54c Answer

Correct Answer: C

Rationale

Choice C is the best answer because it accurately describes data from the table that support Barrett and Rayfield’s suggestion about bite force estimates. According to the text, Barrett and Rayfield believe that estimates of dinosaur bite force may be strongly influenced by the methods used to produce them—that is, that different methods may produce significantly different results. The table shows that the studies by Bates and Falkingham and by Cost et al. used the same estimation method (muscular and skeletal modeling) and produced similar bite force estimates (approximately 35,000–57,000 newtons and 35,000–63,000 newtons, respectively). The study by Meers, however, used body-mass scaling and produced a much higher bite force estimate (183,000–235,000 newtons), while the study by Gignac and Erickson used tooth-bone interaction analysis and produced a much

lower bite force estimate (8,000–34,000 newtons). The fact that one method produced similar estimates in two different studies and that two different methods used in other studies produced substantially different estimates supports the idea that dinosaur bite force estimates are significantly influenced by the methodology used to produce them.

Choice A is incorrect because it inaccurately describes data from the table. The table does show that the studies by Meers and by Cost et al. used different estimation methods and produced very different ranges of estimated dinosaur bite force, which would support Barrett and Rayfield’s suggestion that different methodologies may produce significantly different estimates. However, the table doesn’t show that the study by Meers produced the lowest estimated maximum bite force while the study by Cost et al. produced the highest. In fact, the study by Meers estimated a maximum bite force of approximately 235,000 newtons, which is the highest of all the estimated maximums. Choice B is incorrect. Although the data from Gignac and Ericson’s study are accurately described, a single set of findings from one study using only one methodology can’t show that different methodologies may produce significantly different dinosaur bite force estimates, as Barrett and Rayfield suggest. Choice D is incorrect. Although the table shows that the maximum bite force estimated by Cost et al. was higher than that estimated by Bates and Falkingham, the difference is relatively small; in fact, both teams estimated a minimum bite force of approximately 35,000 newtons and a maximum bite force close to approximately 60,000 newtons. Because these findings demonstrate that a single methodology (muscular and skeletal modeling) produced similar overall results in two studies, the findings don’t support Barrett and Rayfield’s suggestion that different methodologies may produce significantly different dinosaur bite force estimates.

Question Difficulty: Hard

# Question ID 09364cf8

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 09364cf8

In vertical inheritance, parents pass genes to their offspring, but in horizontal transfer (HT), one species, often bacteria, passes genetic material to an unrelated species. In a 2022 study, herpetologist Atsushi Kurabayashi and his team investigated HT in multicellular organisms—namely, snakes and frogs in Madagascar. The team detected *BovB*—a gene transmitted vertically in snakes—in many frog species. The apparent direction of gene transfer seems counterintuitive because frogs usually don’t survive encounters with snakes and so wouldn’t be able to transmit the newly acquired gene to offspring, but the team concluded that *BovB* is indeed transmitted from snakes to frogs, either directly or indirectly, via HT.

Which finding, if true, would most directly support the team’s conclusion?

- A. *BovB* can be transmitted across frog species through HT.
- B. Parasites known to feed on species of snakes and frogs in which the *BovB* gene occurs also carry *BovB*.
- C. *BovB* cannot be reliably transmitted from a snake species to bacteria that are usually encountered by frog species.
- D. Frog species with *BovB* show few discernible advantages as compared with frog species that do not carry *BovB*.

ID: 09364cf8 Answer

Correct Answer: B

Rationale

Choice B is the best answer. If there are parasites that feed on both snakes and frogs, they could carry *BovB* from snakes to frogs. HT could occur “indirectly” through those encounters, which frogs are more likely to survive than snake encounters.

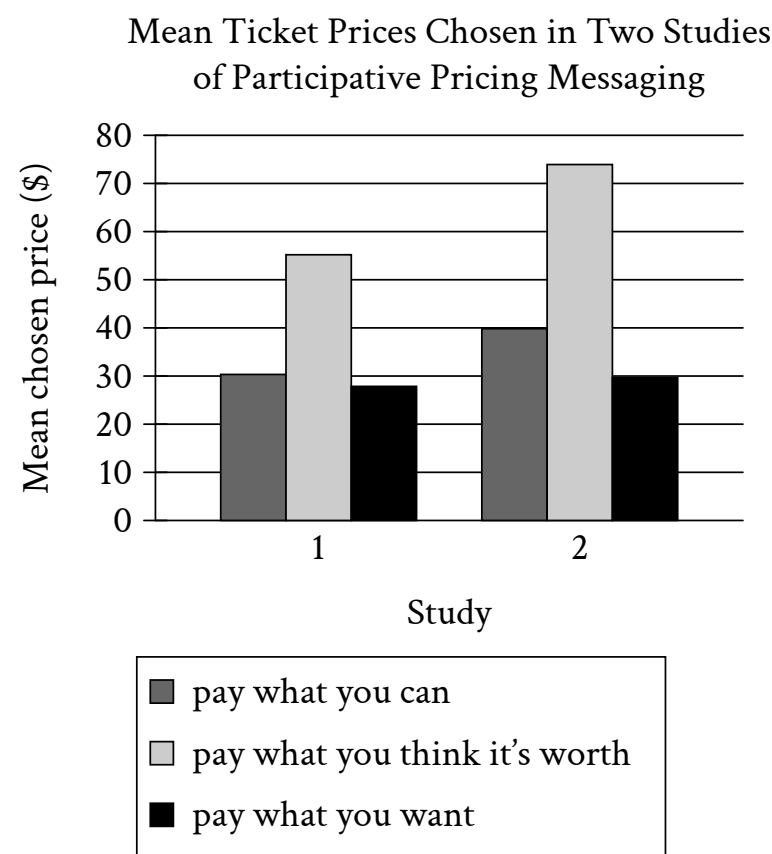
Choice A is incorrect. The team’s conclusion specifically argues that *BovB* is transmitted from snakes to frogs via HT, and this choice doesn’t mention snakes. Choice C is incorrect. The team argues that *BovB* is transmitted from snakes to frogs via HT, and this answer choice discusses a scenario in which the gene is not transmitted. Choice D is incorrect. Whether or not frog species with *BovB* are advantaged isn’t relevant to the team’s conclusion about how the gene is transmitted.

Question Difficulty: Hard

Question ID 11412319

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 11412319



Participative pricing, in which purchasers choose the prices they pay for products, can enable sellers to capitalize on the heterogeneous values consumers assign to the same goods and services, but doing so requires careful messaging. Annie Peng Cui and Jennifer Wiggins recruited 171 participants (ages 18–60) online for an initial study and 83 students (ages 18–31) at a state university for a second study to test the effect of three different messages—“pay what you can,” “pay what you think it’s worth,” and “pay what you want”—on how much participants would pay for concert tickets. Their results illustrate both the heterogeneity of consumer valuations and how sellers can benefit by prompting consumers to consider their own valuations:

- Which choice most effectively uses data from the graph to complete the text?
- A. the students tended to value the concert tickets more highly than did the more age-diverse group recruited online, but when considering what they could afford to pay, the students tended to choose a lower price than did the other group.
  - B. in all three messaging conditions, the group of participants recruited online tended to choose lower prices than did the students, but both groups tended to choose prices closest to the actual cost of the tickets when prompted to consider the tickets’ value.

- C. the students tended to value the concert tickets more highly than did the more age-diverse group recruited online, but both groups tended to choose a higher price when considering the value of the tickets than when considering what they could afford or wanted to pay.
- D. within each group of participants, there was wide variation in the value that individuals assigned to the concert tickets, but the students tended to assign a higher value to the tickets than did the more age-diverse group recruited online.

**ID: 11412319 Answer**

Correct Answer: C

Rationale

Choice C is the best answer because it most effectively uses data from the graph to complete the text about the effect of messaging on participative pricing. The graph shows mean ticket prices chosen by participants in response to three messages across two studies: Study 1, which the text indicates was conducted with an age-diverse group recruited online, and Study 2, which was conducted with student participants. The graph indicates that in the "pay what you think it's worth" condition, the mean price of the concert tickets in Study 2 was about \$74, which is greater than the mean price of about \$55 in Study 1. In other words, when participants were asked to consider their valuation of the tickets, the response was heterogeneous, or mixed. Moreover, according to the graph, both Study 1 and Study 2 show higher prices for the tickets under the "pay what you think it's worth" condition than they do under both the "pay what you can" and the "pay what you want" conditions. That is, the data suggest that both groups of participants named higher prices when considering the value of the tickets than when considering either what they could afford or wanted to pay, a finding that supports the idea that sellers can benefit when prompting consumers to consider their own valuations when they choose prices.

Choice A is incorrect because it contradicts information in the graph. Although the graph shows that students in Study 2 assigned a higher value to the tickets than did the age-diverse group in Study 1, which would support the idea that consumer valuations were heterogeneous, the graph shows that in the "pay what you can" (i.e., what you can afford) condition, the students in Study 2 assigned a higher price (about \$40), not a lower price, than the age-diverse group in Study 1 did (about \$30). Moreover, even if it were true that the students had assigned a lower price in this condition, it wouldn't support the result described in the text, only that the participants across the two studies had different ideas of what they can afford to pay. Choice B is incorrect. Although a finding that participants tended to choose prices that were closest to the actual ticket costs in the "pay what you think it's worth" condition would support the idea that sellers benefit by prompting consumers to think about their own valuations (since it's implied that sellers would lose money in the other conditions, where chosen prices were lower than the participants' valuations), neither the text nor the graph addresses how any of the prices chosen by the study participants relate to the tickets' actual market price. Choice D is incorrect. Although the wide variation in participant valuations would support the idea that consumer valuations tend to be heterogeneous, neither the text nor the graph provides any information from which to discern the relative levels of variance among the responses from participants in either study.

Question Difficulty: Hard

Question ID 1fd27e72

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 1fd27e72

Delta 15-N Values in Seagrass Samples from Four Sites on the Yucatan, 2016–2017

| Site       | February 2016     | October 2016      | February 2017 | October 2017 |
|------------|-------------------|-------------------|---------------|--------------|
| Akumal Bay | no data available | 3.3               | 2.0           | 6.3          |
| Mahahual   | 0.7               | no data available | 2.5           | 3.4          |
| Tulum      | 6.1               | 5.9               | 2.3           | 5.5          |
| Xahuayxol  | 0.9               | 0.3               | −0.9          | 1.4          |

Because water from natural, uncontaminated sources is less enriched with the stable nitrogen isotope <sup>15</sup>N than wastewater from human activities is, the presence of such wastewater in nature can be detected by examining delta 15-N values (a measure of the ratio of <sup>15</sup>N to <sup>14</sup>N) in plants. Karla A. Camacho-Cruz and colleagues assessed delta 15-N values in the seagrass *Thalassia testudinum* from sites on Mexico’s Yucatan peninsula with intermediate tourism development, including Akumal Bay and Tulum, and low tourism development, including Mahahual and Xahuayxol, throughout 2016 and 2017. The data suggest that the intermediate-tourism sites experienced influxes of human wastewater. However, the researchers concluded that this happened intermittently.

Which choice best describes data from the table that support the underlined conclusion?

- A. Although delta 15-N values were generally higher in Akumal Bay and Tulum than in Mahahual and Xahuayxol, the values were lower in Akumal Bay than in Mahahual and Xahuayxol in February 2017.
- B. Delta 15-N values reached their lowest level in February 2017 in both Akumal Bay and Tulum, but no data were available for Akumal Bay in February 2016, when the values reached their highest level in Tulum.
- C. Although all sites showed considerable variation in delta 15-N values, the values remained relatively constant in Akumal Bay from October 2016 to February 2017 and in Tulum from February 2016 to October 2016.
- D. In Akumal Bay and Tulum, delta 15-N values fluctuated considerably across the three measurements made from October 2016 to October 2017.

ID: 1fd27e72 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it describes data from the table that support the underlined conclusion. The text accompanying the table states that delta 15-N values (a measure of the ratio of two nitrogen isotopes) can be used as an indirect means of measuring the ratio of human wastewater to water from uncontaminated sources—the higher the delta 15-N values, the

greater the presence of human wastewater. The text goes on to mention an experiment conducted by Camacho-Cruz and colleagues measuring delta 15-N values in seagrass on the Yucatan peninsula at several sites, four of which are presented in the table accompanying the text. Two of the sites noted in the table, Akumal Bay and Tulum, had intermediate tourism development, and two others, Mahahual and Xahuayxol, had low tourism development. It is reasonable to infer that sites with intermediate tourism have a greater human presence than those with low tourism and therefore are subject to greater amounts of wastewater and exhibit higher delta 15-N values in seagrass. However, Camacho-Cruz and colleagues found that the increase in delta 15-N values was not constant. The table supports this conclusion because the two intermediate-tourism sites (Akumal Bay and Tulum) had delta 15-N values that fluctuated considerably—both had higher delta 15-N values than the two low-tourism sites (Mahahual and Xahuayxol) in October 2016 and October 2017, but in February 2017 the delta 15-N values for the intermediate-tourism sites dropped significantly (in fact, Mahahual, a low-tourism site, had a higher delta 15-N value for that period). The fluctuations in values in Akumal Bay and Tulum support the conclusion that these sites experienced influxes of human wastewater intermittently.

Choice A is incorrect because it inaccurately describes data from the table: in February 2017 the delta 15-N value in Akumal Bay was higher than the delta 15-N value in Xahuayxol, not lower. Choice B is incorrect because the absence of data for delta 15-N levels in Akumal Bay in February 2016 would neither prove nor disprove that the presence of human wastewater at Akumal Bay and Tulum was not constant. Despite the unavailable data, there is still enough information to conclude that delta 15-N levels at both sites fluctuated significantly and that influxes of human wastewater therefore happened intermittently. Choice C is incorrect because a constancy in delta 15-N values would not indicate that the influx of human wastewater was intermittent, but rather the opposite. Moreover, the two periods selected are not indicative of general trends in the whole table (for example, the values fluctuated significantly in Akumal Bay between February 2017 and October 2017, and in Tulum between October 2016 and February 2017).

Question Difficulty: Hard

# Question ID d3a9c244

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: d3a9c244

Properties of Select Rotating Radio Transients

| Name       | Right ascension (hours) | Period (seconds) | Frequency (hertz) |
|------------|-------------------------|------------------|-------------------|
| J0545-03   | 5:45                    | 1.074            | 0.931             |
| J1654-2335 | 16:54:03                | 0.545            | 1.834             |
| J0103+54   | 1:03:37                 | 0.354            | 2.822             |
| J0121+53   | 1:21                    | 2.725            | 0.367             |
| J0614-03   | 6:15                    | 0.136            | 7.353             |

A student is researching rotating radio transients (RRATs), a subclass of pulsar stars characterized by short pulses of radio waves. The time between consecutive pulses of an RRAT is referred to as a period. Looking at the table, the student determines that \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. J0614-03 has the shortest amount of time between consecutive pulses of all the RRATs in the table.
- B. J0545-03 and J0121+53 have the same amount of time between consecutive pulses.
- C. J1654-2335 has the longest amount of time between consecutive pulses of all the RRATs in the table.
- D. J0103+54 and J0121+53 both have more than one second of time between consecutive pulses.

ID: d3a9c244 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most accurately uses data from the table to complete the statement about certain rotating radio transients (RRATs). The table contains information about the right ascensions, periods, and frequencies of various pulsar stars called RRATs. According to the text, the period of an RRAT is defined as the time between consecutive pulses. The table shows that the period of RRAT J0614-03 is 0.136 seconds, which is the lowest number of all the periods of the RRATs listed in the table. If the period is the time between consecutive pulses, and J0614-03 has the shortest period, then J0614-03 has the shortest amount of time between consecutive pulses of all the RRATs in the table.

Choice B is incorrect because according to the table, J0545-03 has a period of 1.074 seconds and J0121+53 has a period of 2.725 seconds. According to the text, the period of an RRAT is the time between consecutive pulses. Therefore, since J0545-03 and J0121+53 have different periods, they do not have the same amount of time between consecutive pulses. Choice C is incorrect because according to the table, J1654-2335 has a period of 0.545 seconds, which is not the longest period of all the

RRATs listed in the table. According to the text, the period of an RRAT is the time between consecutive pulses, and both J0545-03 and J0121+53 have longer periods than J1654-2335, so J1654-2335 does not have the longest time between consecutive pulses of all the RRATs in the table. Choice D is incorrect because according to the table, J0103+54 has a period of 0.354 seconds, and J0121+53 has a period of 2.725 seconds. According to the text, the period of an RRAT is the time between consecutive pulses, and only J0121+53 has more than one second of time between consecutive pulses, not J0103+54.

Question Difficulty: Hard

Question ID a95d43fc

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a95d43fc

Five of the Responses to Survey about Actions to Conserve Energy

| Action                                           | Action category | Percentage of respondents selecting action (%) |
|--------------------------------------------------|-----------------|------------------------------------------------|
| Use efficient cars/hybrids                       | efficiency      | 2.8                                            |
| Change thermostat setting                        | curtailment     | 6.3                                            |
| Use bike or public transportation instead of car | curtailment     | 12.9                                           |
| Use efficient light bulbs                        | efficiency      | 3.6                                            |
| Turn off lights                                  | curtailment     | 19.6                                           |

In a survey of public perceptions of energy use, researcher Shahzeen Attari and her team asked respondents to name the most effective action ordinary people can take to conserve energy. The team categorized each action as either an efficiency or a curtailment and found that respondents tended to name curtailments more often than they did efficiencies. For example, 19.6% of respondents stated that the most effective way to conserve energy is to turn off the lights, while only \_\_\_\_\_

- Which choice most effectively uses data from the table to complete the text?
- A. 6.3% of respondents said it was most effective to use efficient cars or hybrids.
  - B. 2.8% of respondents said it was most effective to change the thermostat setting.
  - C. 12.9% of respondents said it was most effective to use a bike or public transportation.
  - D. 3.6% of respondents said it was most effective to use efficient light bulbs.

ID: a95d43fc Answer

Correct Answer: D

Rationale

Choice D is the best answer because it most effectively uses data from the table to complete the text’s discussion of Attari and her team’s survey results. The text states that the team asked respondents to identify the most effective action people can take to save energy, with the team classifying each action as either an efficiency or a curtailment. According to the text, respondents named curtailments more often than they did efficiencies. The text then offers an example that begins by citing a curtailment, turning off the lights, that was selected by a relatively high percentage of respondents (19.6%). Given that the example is presented in support of the idea that more respondents selected curtailments than efficiencies, the most effective way to complete the example is by citing an efficiency, using efficient light bulbs, that was selected by a relatively low percentage of respondents (only 3.6%).

Choice A is incorrect because it inaccurately describes data in the table. The data indicate that 6.3% of respondents said the most effective action was to change the thermostat setting, not to use efficient cars or hybrids. Choice B is incorrect because it inaccurately describes data in the table. The data indicate that 2.8% of respondents said the most effective action was to use efficient cars/hybrids, not to change the thermostat setting. Choice C is incorrect because it mentions a curtailment (using a bike or public transportation) and not an efficiency. The text states that a research team asked respondents to identify the most effective action people can take to save energy, with the team classifying each action as either an efficiency or a curtailment. According to the text, respondents named curtailments more often than they did efficiencies. The text then offers an example that begins by citing a curtailment, turning off the lights, that was selected by a relatively high percentage of respondents (19.6%). Given that the example is presented in support of the idea that more people selected curtailments than efficiencies, the most effective way to complete the example is not by referring to another curtailment but rather by referring to an efficiency that was selected by a relatively low percentage of respondents.

Question Difficulty: Hard

# Question ID 7469d34d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7469d34d

As media consumption has become increasingly multiplatform and socially mediated, active news acquisition has diminished in favor of an attitude known as “news finds me” (NFM), in which people passively rely on their social networks and ambient media environments for information about current events. Homero Gil de Zúñiga and Trevor Diehl examined data on a representative group of adults in the United States to determine participants’ strength of NFM attitude, political knowledge, and political interest. Although no major election took place sufficiently near the study for Gil de Zúñiga and Diehl to identify causality between NFM and voting behavior, they did posit that NFM may reduce voting probability through an indirect effect.

Which finding, if true, would most directly support the idea advanced by Gil de Zúñiga and Diehl?

- A. NFM attitude tends to increase in strength as major elections approach, and people are significantly more likely to vote in major elections than in minor elections.
- B. NFM attitude has a strong negative effect on political knowledge and interest, and there is known to be a strong positive correlation between political knowledge and interest and the likelihood of voting.
- C. Political interest is known to have a strong positive effect on likelihood of voting but shows only a weak positive effect on political knowledge, and NFM attitude shows little correlation with either political knowledge or political interest.
- D. The likelihood of voting increases as political knowledge increases, and the relationship between NFM attitude and political knowledge tends to strengthen as the size of people’s social networks increases.

ID: 7469d34d Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support the idea advanced by Homero Gil de Zúñiga and Trevor Diehl that NFM (“news finds me”) attitude may reduce voting probability through an indirect effect. The text describes NFM as an attitude that has lowered people’s interest in actively acquiring news and introduces Gil de Zúñiga and Diehl’s study on the effects of NFM on people in the United States’ political knowledge and interest. The text goes on to say that despite the fact that the study didn’t occur near a major election, Gil de Zúñiga and Diehl still conclude that NFM may reduce voting probability. If the likelihood, or probability, that a person will vote is linked to that person’s level of political knowledge and interest, that would suggest that negatively affecting a person’s level of political knowledge and interest would also negatively affect how likely that person is to vote. Thus, if NFM attitude has a negative effect on political knowledge and interest, then it would also likely reduce voting probability.

Choice A is incorrect because the finding that NFM attitude increases as major elections approach wouldn’t address the effect of NFM on the likelihood of voting, which is the idea advanced by Gil de Zúñiga and Diehl. Moreover, although the text mentions that there were no major elections that occurred near the time of the study, it doesn’t discern between major and minor elections when discussing voting probability. Choice C is incorrect because finding that NFM attitude shows little correlation with either political knowledge or political interest would undermine, not support, Gil de Zúñiga and Diehl’s idea that NFM may reduce voting

probability because it suggests that NFM has no effect on political knowledge or political interest. Choice D is incorrect. Although Gil de Zúñiga and Diehl's idea would be supported by the finding that the likelihood of voting increases as political knowledge increases, nothing in the text suggests that the researchers' idea hinges on the size of people's social networks.

Question Difficulty: Hard

Question ID 8b924b97

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 8b924b97

Founded in 1965 and originally established as a cultural extension of the United Farm Workers—a union representing many Mexican American agricultural workers at the time—the theater troupe El Teatro Campesino has achieved recognition as a source of inspiration for subsequent Chicano theater companies and as a contributor to the dramatic arts. In an article about the company, a theater historian posits that a significant stylistic influence on El Teatro’s early performances was the audience-mediated slapstick comedy of *carpa* theater, vaudeville-style shows popular in Mexico and the US Southwest in the 1920s and ’30s.

Which quotation from the article would best illustrate the theater historian’s claim?

- A. “The company presented *actos*, short comedy sketches, that often relied on exaggerated physical humor to groups of agricultural workers, whose reactions—enthusiastic cheers of appreciation and, occasionally, loud boos of disapproval—promoted improvisation.”
- B. “The company was focused on the reality of the present situation and discovered that humor was often found in that reality; consequently, comedy became a tool to convey social critique while entertaining and inspiring audiences.”
- C. “The company relied heavily on satire, humor, and references to contemporary popular culture as well as a make-do aesthetic—often referred to as *rasquache*—that reflected not only the troupe’s limited financial resources but also its sociopolitical message.”
- D. “The members of the company, which in addition to founder Luis Valdez consisted entirely of nonprofessional actors, traveled into farm fields, where they, with minimal props and costumes, performed comedy in the form of brief humorous vignettes.”

ID: 8b924b97 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively illustrates the theater historian’s claim that El Teatro Campesino’s early performances were influenced stylistically by *carpa* theater, vaudeville-style shows with “audience-mediated slapstick comedy.” The quotation indicates that El Teatro presented comedic sketches that often featured exaggerated physical humor and that the performers improvised based on the cheers and boos from the audience; thus, it illustrates that El Teatro’s performances were similar to *carpa* theater in the physical, slapstick nature of their comedy and in the way the performances were mediated, or shaped, by the audience’s reactions.

Choice B is incorrect. Although the quotation refers to El Teatro’s use of comedy and mentions audiences, it focuses on the company’s use of comedic aspects of reality as a tool to critique society while providing audiences with entertainment and inspiration; it doesn’t give any indication that El Teatro’s performances featured slapstick, or very physical, comedy or that they were directly shaped by the audience. Choice C is incorrect. Although the quotation refers to El Teatro’s aesthetic, or style, and mentions comedy, it indicates only that the company relied on satire and humor and had a style that reflected their limited financial means and sociopolitical message; it doesn’t give any indication that El Teatro’s performances featured slapstick, or very

physical, comedy or that they were directly shaped by the audience. Choice D is incorrect. Although the quotation refers to El Teatro's performance of comedy, it mentions only that the company performed brief humorous vignettes, or short humorous scenes, in farm fields; it doesn't give any indication that El Teatro's performances featured slapstick, or very physical, comedy or that they were directly shaped by the audience.

Question Difficulty: Hard

Question ID 63b43d2f

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 63b43d2f

Approximate Rates of Speech and Information Conveyed for Five Languages

| Language   | Rate of speech (syllables per second) | Rate of information conveyed (bits per second) |
|------------|---------------------------------------|------------------------------------------------|
| Serbian    | 7.2                                   | 39.1                                           |
| Spanish    | 7.7                                   | 42.0                                           |
| Vietnamese | 5.3                                   | 42.5                                           |
| Thai       | 4.7                                   | 33.8                                           |
| Hungarian  | 5.9                                   | 34.6                                           |

A group of researchers working in Europe, Asia, and Oceania conducted a study to determine how quickly different Eurasian languages are typically spoken (in syllables per second) and how much information they can effectively convey (in bits per second). They found that, although languages vary widely in the speed at which they are spoken, the amount of information languages can effectively convey tends to vary much less. Thus, they claim that two languages with very different spoken rates can nonetheless convey the same amount of information in a given amount of time.

Which choice best describes data from the table that support the researchers’ claim?

- A. Among the five languages in the table, Thai and Hungarian have the lowest rates of speech and the lowest rates of information conveyed.
- B. Vietnamese conveys information at approximately the same rate as Spanish despite being spoken at a slower rate.
- C. Among the five languages in the table, the language that is spoken the fastest is also the language that conveys information the fastest.
- D. Serbian and Spanish are spoken at approximately the same rate, but Serbian conveys information faster than Spanish does.

ID: 63b43d2f Answer

Correct Answer: B

Rationale

Choice B is the best answer because it provides the most direct support from the table for the claim that two languages can convey similar amounts of information even if they’re spoken at different rates. The table shows the approximate rates at which five languages are spoken and the rates at which those five languages convey information. Vietnamese is spoken at around 5.3 syllables per second, whereas Spanish is spoken at around 7.7 syllables per second, but the two languages convey information at very similar rates: Vietnamese at a rate of around 42.5 bits per second and Spanish at a rate of around 42.0 bits per second. Thus, the description of Vietnamese conveying information at around the same rate that Spanish does despite being spoken more slowly supports the claim in the text that languages can convey the same amount of information even if spoken at different rates.

Choice A is incorrect because it isn't true that Thai and Hungarian have the lowest rates of speech of the five languages shown. According to the table, Hungarian is spoken at around 5.9 syllables per second, which is faster than Vietnamese (5.3 syllables per second). Additionally, even if this statement were true, the assertion that two languages are spoken the slowest and convey information the slowest wouldn't support the claim that languages can convey the same amount of information even if they're spoken at different rates. Choice C is incorrect because it isn't true that the fastest-spoken language (Spanish, at 7.7 syllables per second) also conveys information the fastest: Spanish conveys information at 42.0 bits per second, which is slower than the 42.5 bits-per-second rate at which Vietnamese conveys information. Additionally, even if this statement were true, the assertion that the language spoken the fastest also conveys information the fastest has no bearing on the claim that languages can convey the same amount of information even if they're spoken at different rates. Choice D is incorrect because it isn't true that Serbian conveys information faster than Spanish does. According to the table, Serbian conveys information at a rate of around 39.1 bits per second, which is slower than the 42.0 bits-per-second rate at which Spanish conveys information.

Question Difficulty: Hard

# Question ID 44132412

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 44132412

Although most songbirds build open, cupped nests, some species build domed nests with roofs that provide much more protection. Many ecologists have assumed that domed nests would provide protection from weather conditions and thus would allow species that build them to have larger geographic ranges than species that build open nests do. To evaluate this assumption, a research team led by evolutionary biologist Iliana Medina analyzed data for over 3,000 species of songbirds.

Which finding from Medina and her colleagues’ study, if true, would most directly challenge the assumption in the underlined sentence?

- A. Species that build open nests tend to have higher extinction rates than species that build domed nests.
- B. Species that build open nests tend to be smaller in size than species that build domed nests.
- C. Species that build open nests tend to use fewer materials to build their nests than species that build domed nests do.
- D. Species that build open nests tend to have larger ranges than species that build domed nests.

ID: 44132412 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would challenge the assumption that many ecologists have made about the connection between the building of domed nests and geographic range in songbirds. The text says that many ecologists have assumed that since domed nests provide protection from weather conditions, songbird species that build such nests should be able to have larger geographic ranges than songbird species that build open nests do. If Medina and her colleagues found that species that build open nests tend to have larger geographic ranges than species that build domed nests do, their finding would show the opposite of what the ecologists have assumed. It would therefore challenge the ecologists’ assumption.

Choice A is incorrect because nothing in the text suggests that there’s a relationship between songbird species’ extinction rates and their geographic ranges. The finding that species that build open nests tend to have higher extinction rates than species that build domed nests do would therefore have no clear bearing on the ecologists’ assumption that domed nests allow species that build them to have larger geographic ranges than those of species that build open nests. Choice B is incorrect because nothing in the text suggests that there’s a relationship between songbird species’ sizes and their geographic ranges. The finding that species that build open nests tend to be smaller in size than species that build domed nests are would therefore have no clear bearing on the ecologists’ assumption that domed nests allow species that build them to have larger geographic ranges than those of species that build open nests. Choice C is incorrect because although the text indicates that many ecologists have assumed that there’s a connection between how songbird species build their nests and the species’ geographic ranges, the text says that this assumption is based on the shape of the nests—that is, whether the nests are domed or open—not the number of materials used. The finding that species that build open nests tend to use fewer materials to build their nests than species that build domed nests

do would therefore have no clear bearing on the ecologists' assumption that domed nests allow species that build them to have larger geographic ranges than those of species that build open nests.

Question Difficulty: Hard

Question ID b9ff6341

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: b9ff6341

Born in Chile in 1917, artist and ethnomusicologist Violeta Parra was a pioneer in the *nueva canción chilena* (Chilean New Song) movement that emerged in the late 1950s and then spread throughout Latin America, Portugal, and Spain as *nueva canción*. Parra traveled all over Chile compiling extensive records of authentic folk music as well as recipes, proverbs, and other facets of cultural history. These records formed the foundation for the early movement’s revival of traditional Chilean folk forms in new songs that represented modern realities of the working class and strongly advocated for social change. As the movement spread beyond Chile, the breadth of musical traditions incorporated into its foundation also expanded.

Which detail about songs associated with *nueva canción*, if true, would best illustrate the underlined claim?

- A. Many feature political commentary addressing contemporary issues that stemmed from shared experiences of European colonization in Latin American countries.
- B. Many demonstrate the stylistic influence of *corrido*, a genre of narrative songs from Mexico that had come to be characterized by political themes in the early 1800s.
- C. Many were written with parts meant to be played on the *quena*, a traditional flute used across Andean countries, including Chile.
- D. Many were produced by Argentinian artists in the late 1950s, with others by artists in additional Latin American countries first emerging soon after.

ID: b9ff6341 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a detail that, if true, would most effectively illustrate the underlined claim that as *nueva canción* spread beyond Chile, the breadth of musical traditions incorporated into its foundation also expanded. The text explains that the movement was initially founded on traditional Chilean folk forms compiled by Parra, so if many *nueva canción* songs demonstrate the stylistic influence of *corrido*—a Mexican narrative song genre—that would show that a musical tradition originating outside Chile became part of the movement’s foundation, directly illustrating the text’s claim about how the breadth of *nueva canción* expanded.

Choice A is incorrect because the finding addresses lyrical content—political commentary on issues stemming from European colonization—rather than musical traditions. Even if *nueva canción* songs across different countries share political themes, that doesn’t indicate that new musical forms or styles were incorporated into the movement’s foundation. Thematic content is distinct from the musical traditions that songs draw on stylistically. Choice C is incorrect because the *quena* is described as a “traditional flute used across Andean countries, including Chile,” meaning it’s part of the Chilean folk tradition that underpinned *nueva canción* at its origin. Use of the *quena* therefore wouldn’t illustrate the incorporation of musical traditions beyond those that founded the early movement in Chile. Choice D is incorrect because the finding establishes only that artists in additional Latin American countries produced *nueva canción* songs, not that those artists incorporated musical traditions from their own countries into the

movement. Artists in other countries could still have been drawing on the same Chilean folk forms that originally founded the movement, so geographic spread alone doesn't illustrate an expansion of musical traditions.

Question Difficulty: Hard

Question ID 9c4c0554

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 9c4c0554

Distribution of Ecosystem Services Affected by Invasive Species by Service Type

| Region (Overall) | Provisioning (75%) | Regulating (21%) | Cultural (4%) |
|------------------|--------------------|------------------|---------------|
| West             | 73%                | 27%              | 0%            |
| North            | 88%                | 12%              | 0%            |
| South            | 79%                | 14%              | 7%            |
| East             | 83%                | 6%               | 11%           |
| Central          | 33%                | 67%              | 0%            |

To assess the impact of invasive species on ecosystems in Africa, Benis N. Egoh and colleagues reviewed government reports from those nations about how invasive species are undermining ecosystem services (aspects of the ecosystem on which residents depend). The services were sorted into three categories: provisioning (material resources from the ecosystem), regulating (natural processes such as cleaning the air or water), and cultural (nonmaterial benefits of ecosystems). Egoh and her team assert that countries in each region reported effects on provisioning services and that provisioning services represent the majority of the reported services.

Which choice best describes data from the table that support Egoh and colleagues’ assertion?

- A. Provisioning services represent 73% of the services reported for the West region and 33% of those for the Central region, but they represent 75% of the services reported overall.
- B. None of the percentages shown for provisioning services are lower than 33%, and the overall percentage shown for provisioning services is 75%.
- C. Provisioning services are shown for each region, while no cultural services are shown for some regions.
- D. The greatest percentage shown for provisioning services is 88% for the North region, and the least shown for provisioning services is 33% for the Central region.

ID: 9c4c0554 Answer

Correct Answer: B

Rationale

Choice B is the best answer. The finding that all the regions reported at least some effects on provisioning services supports the first part of the assertion. And the fact that provisioning services comprise 75% of the reported services overall supports the second part of the assertion.

Choice A is incorrect. This choice doesn't fully support the assertion. It doesn't include the finding that all the regions (not just Central and West) reported at least some effects on provisioning services. Choice C is incorrect. This choice doesn't fully support the assertion. It doesn't demonstrate that provisioning services represent the majority of the reported services overall. Choice D is incorrect. This choice doesn't fully support the assertion. It doesn't demonstrate that provisioning services represent the majority of the reported services overall.

Question Difficulty: Hard

# Question ID efd9269d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: efd9269d

“Poetry” is a 1919 poem by Marianne Moore. The poem highlights an ambivalence toward poetry as the speaker acknowledges its merits while also expressing a sense of displeasure, writing \_\_\_\_\_

Which quotation from “Poetry” most effectively illustrates the claim?

- A. “nor is it valid / to discriminate against ‘business documents and / school-books’; all these phenomena are important.”
- B. “One must make a distinction / however: when dragged into prominence by half poets, the result is not / poetry”
- C. “when [poems] become so derivative as to become unintelligible, the / same thing may be said for all of us—that we / do not admire what / we cannot understand.”
- D. “Reading [poetry], however, with a perfect contempt for it, one discovers that there is in / it after all, a place for the genuine.”

ID: efd9269d Answer

Correct Answer: D

Rationale

Choice D is the best answer because it most effectively uses a quotation from "Poetry" to illustrate the claim that the poem highlights an ambivalence, or a conflicted attitude, toward poetry. In the quotation, the speaker suggests that one might read poetry with "contempt," or disdain, for it, but even with this negative attitude one will find "a place for the genuine." Because the quotation expresses conflicting attitudes toward poetry, it effectively illustrates the speaker’s ambivalence in discussing the merits and displeasure of reading poetry.

Choice A is incorrect because it doesn’t mention poetry or show ambivalence. Choice B is incorrect. Although the idea of "half poets" may seem to relate to ambivalence, the speaker mentions only negative attitudes toward certain works and the quotation therefore lacks a contrasting positive or neutral attitude that would be needed to indicate ambivalence. Choice C is incorrect because the speaker mentions only negative attitudes toward certain works and the quotation therefore lacks a contrasting positive or neutral attitude that would be needed to indicate ambivalence.

Question Difficulty: Hard

Question ID b9e60c7a

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: b9e60c7a

Number and Origin of Clamshell Tools Found at Different Levels Below the Surface in Neanderthal Cave

| Depth of tools found below surface in cave (meters) | Clamshells that Neanderthals collected from the beach | Clamshells that Neanderthals harvested from the seafloor |
|-----------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|
| 3–4                                                 | 99                                                    | 33                                                       |
| 6–7                                                 | 1                                                     | 0                                                        |
| 4–5                                                 | 2                                                     | 0                                                        |
| 2–3                                                 | 7                                                     | 0                                                        |
| 5–6                                                 | 18                                                    | 7                                                        |

Studying tools unearthed at a cave site on the western coast of Italy, archaeologist Paola Villa and colleagues have determined that prehistoric Neanderthal groups fashioned them from shells of clams that they harvested from the seafloor while wading or diving or that washed up on the beach. Clamshells become thin and eroded as they wash up on the beach, while those on the seafloor are smooth and sturdy, so the research team suspects that Neanderthals prized the tools made with seafloor shells. However, the team also concluded that those tools were likely more challenging to obtain, noting that \_\_\_\_\_

Which choice most effectively uses data from the table to support the research team’s conclusion?

- A. at each depth below the surface in the cave, the difference in the numbers of tools of each type suggests that shells were easier to collect from the beach than to harvest from the seafloor.
- B. the highest number of tools were at a depth of 3–4 meters below the surface, which suggests that the Neanderthal population at the site was highest during the related period of time.
- C. at each depth below the surface in the cave, the difference in the numbers of tools of each type suggests that Neanderthals preferred to use clamshells from the beach because of their durability.
- D. the higher number of tools at depths of 5–6 meters below the surface in the cave than at depths of 4–5 meters below the surface suggests that the size of clam populations changed over time.

ID: b9e60c7a Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the table to support the researchers’ conclusion about the harvesting of clamshells by Neanderthals for use as tools. The text explains that Neanderthals used clamshells to make tools and that the sturdiest, and therefore the most desirable, shells for this purpose are found on the seafloor, not on the beach. However, the researchers also concluded that the clamshell tools made from shells from the seafloor are rarer than those made from shells

from the beach. Meanwhile the table shows that at each depth, the number of tools made from shells from the beach exceeds the number made from the more desirable shells from the seafloor. The fact that the more desirable shells are less common suggests that it was significantly more difficult to harvest shells from the seafloor than from the beach.

Choice B is incorrect because knowing which depth represents the period of time with the highest Neanderthal population does not help answer the question of why the Neanderthals consistently made more tools from the less desirable shells from the beach than they made from the more desirable shells from the seafloor. Choice C is incorrect because it claims that the beach shells are more durable than the seafloor shells, which contradicts the text’s description of shells from the seafloor as smoother and sturdier than shells from the beach. Choice D is incorrect because knowing which depth has the most artifacts or whether the clam population fluctuated does not help explain why tools made from the less desirable shells from the beach outnumber tools made from the more desirable shells from the seafloor.

Question Difficulty: Hard

Question ID d4affb34

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: d4affb34

Average Nitrate and Phosphate Concentrations in Seawater after Volcanic Eruption

| Nutrient                         | Seawater in lava-affected area, 5–45 meters below surface | Seawater in lava-affected area, 75–125 meters below surface | Seawater outside of lava-affected area, 5–45 meters below surface | Seawater outside of lava-affected area, 75–125 meters below surface |
|----------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------|
| Nitrate (micromoles per liter)   | 3.1                                                       | 0.4                                                         | ≤0.03                                                             | ≤0.01                                                               |
| Phosphate (micromoles per liter) | 0.17                                                      | 0.09                                                        | 0.14                                                              | 0.06                                                                |

After a volcanic eruption spilled lava into North Pacific Ocean waters, a dramatic increase of diatoms (a kind of phytoplankton) near the surface occurred. Scientists assumed the diatoms were thriving on nutrients such as phosphate from the lava, but analysis showed these nutrients weren’t present near the surface in forms diatoms can consume. However, there was an abundance of usable nitrate, a nutrient usually found in much deeper water and almost never found in lava. Microbial oceanographer Sonya Dyhrman and colleagues believe that as the lava plunged nearly 300 meters below the surface it dislodged pockets of this nutrient, releasing it to float upward, given that \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. at 5–45 meters below the surface, the average concentration of phosphate was about the same in the seawater in the lava-affected area as in the seawater outside of the lava-affected area.
- B. for both depth ranges measured, the average concentrations of nitrate were substantially higher in the seawater in the lava-affected area than in the seawater outside of the lava-affected area.
- C. for both depth ranges measured in the seawater in the lava-affected area, the average concentrations of nitrate were substantially higher than the average concentrations of phosphate.
- D. in the seawater outside of the lava-affected area, there was little change in the average concentration of nitrate from 75–125 meters below the surface to 5–45 meters below the surface.

ID: d4affb34 Answer

Correct Answer: B

Rationale

Choice B is the best answer. The claim is that the lava freed the deep nitrate, allowing it to float upward. The table supports this by showing that there was more nitrate in the lava-affected seawater at various depths above 300 meters (the depth to which the

lava plunged) than in unaffected seawater.

Choice A is incorrect. This choice doesn't complete the statement in a way that supports the claim. The claim is about nitrate, not phosphate. Choice C is incorrect. This choice doesn't complete the statement in a way that supports the claim. The claim is only about nitrate—the concentrations of phosphate aren't relevant. Choice D is incorrect. This choice doesn't complete the statement in a way that supports the claim. It doesn't say anything about the seawater inside the lava-affected area.

Question Difficulty: Hard

# Question ID 39769e3d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 39769e3d

“To You” is an 1856 poem by Walt Whitman. In the poem, Whitman suggests that he deeply understands the reader, whom he addresses directly, writing, \_\_\_\_\_

Which quotation from “To You” most effectively illustrates the claim?

- A. “Your true soul and body appear before me.”
- B. “Whoever you are, now I place my hand upon you, that you be my poem.”
- C. “I should have made my way straight to you long ago.”
- D. “Whoever you are, I fear you are walking the walks of dreams.”

ID: 39769e3d Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most directly illustrates the text’s claim about Whitman’s poem, “To You.” The text says that in this poem, Whitman suggests that he deeply understands the poem’s reader. This quotation says that the reader’s “true soul and body appear before” Whitman, thereby asserting that he can see the reader as the reader truly is, suggesting that he deeply understands the reader.

Choice B is incorrect because this quotation describes Whitman making the reader the subject of the poem (“you be my poem”), not Whitman deeply understanding the reader. Choice C is incorrect because instead of suggesting that Whitman deeply understands the reader, it emphasizes Whitman’s regret at not having addressed the reader sooner. Choice D is incorrect. Although this quotation shows Whitman directly addressing the reader and expressing concern about the reader, it doesn’t illustrate the idea that Whitman suggests that he deeply understands the reader. The quotation is simply expressing concern about the reader, which doesn’t necessarily imply deep understanding of the reader.

Question Difficulty: Hard

# Question ID 504476cf

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 504476cf

Although many transposons, DNA sequences that move within an organism’s genome through shuffling or duplication, have become corrupted and inactive over time, those from the long interspersed nuclear elements (LINE) family appear to remain active in the genomes of some species. In humans, they are functionally important within the hippocampus, a brain structure that supports complex cognitive processes. When the results of molecular analysis of two species of octopus—an animal known for its intelligence—were announced in 2022, the confirmation of a LINE transposon in *Octopus vulgaris* and *Octopus bimaculoides* genomes prompted researchers to hypothesize that that transposon family is tied to a species’ capacity for advanced cognition.

Which finding, if true, would most directly support the researchers’ hypothesis?

- A. The LINE transposon in *O. vulgaris* and *O. bimaculoides* genomes is active in an octopus brain structure that functions similarly to the human hippocampus.
- B. The human genome contains multiple transposons from the LINE family that are all primarily active in the hippocampus.
- C. A consistent number of copies of LINE transposons is present across the genomes of most octopus species, with few known corruptions.
- D. *O. vulgaris* and *O. bimaculoides* have smaller brains than humans do relative to body size, but their genomes contain sequences from a wider variety of transposon families.

ID: 504476cf Answer

Correct Answer: A

Rationale

Choice A is the best answer. The text says that LINE transposons are important in the human hippocampus, which supports complex cognition. If the LINE transposon found in octopuses is active in a similar part of their brain, that would suggest that LINE transposons support complex cognition in octopuses too, which in turn supports the hypothesis that LINE transposons are linked to advanced cognition in general.

Choice B is incorrect. This choice doesn’t support the hypothesis. It doesn’t include anything about how LINE transposons function in species other than humans. Choice C is incorrect. This choice doesn’t support the hypothesis. It doesn’t include anything about how the LINE transposon in octopuses might support advanced cognition. Choice D is incorrect. This choice doesn’t support the hypothesis. It doesn’t include anything about how the LINE transposon in octopuses might support advanced cognition.

Question Difficulty: Hard

# Question ID f96e3085

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: f96e3085

Pulitzer Prize–winning writer Héctor Tobar has built a multifaceted career as both a journalist and an author of short stories and novels. In an essay about Tobar’s work, a student claims that Tobar blends his areas of expertise by applying journalism techniques to his creation of works of fiction.

Which quotation from a literary critic best supports the student’s claim?

- A. “For one novel, an imagined account of a real person’s global travels, Tobar approached his subject like a reporter, interviewing people the man had met along the way and researching the man’s own writings.”
- B. “Tobar got his start as a volunteer for *El Tecolote*, a community newspaper in San Francisco, and wrote for newspapers for years before earning a degree in creative writing and starting to publish works of fiction.”
- C. “Many of Tobar’s notable nonfiction articles are marked by the writer’s use of techniques usually associated with fiction, such as complex narrative structures and the incorporation of symbolism.”
- D. “The protagonist of Tobar’s third novel is a man who wants to be a novelist and keeps notes about interesting people he encounters so he can use them when developing characters for his stories.”

ID: f96e3085 Answer

Correct Answer: A

Rationale

Choice A is the best answer. The example of Tobar approaching his subject “like a reporter,” including conducting “interviews” and “research,” shows Tobar applying journalism techniques to his fiction-writing.

Choice B is incorrect. This choice doesn’t support the claim. It tells us about Tobar’s initial career as a journalist, but it doesn’t say anything about him “applying journalism techniques” to his fiction-writing. Choice C is incorrect. This choice doesn’t support the claim. It tells us that Tobar applied fiction techniques to his nonfiction writing, but we’re looking for evidence of the other way around: that Tobar applied journalism techniques to his fiction-writing. Choice D is incorrect. This choice doesn’t support the claim. It tells us that a character in one of Tobar’s novels applied a journalism technique to his fiction-writing, but it doesn’t tell us that Tobar did that himself.

Question Difficulty: Hard

Question ID 7c966237

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 7c966237

The Intertropical Convergence Zone (ITCZ), a band of clouds that encircles Earth in the tropics and is a major rainfall source, shifts position in response to temperature variations across Earth’s hemispheres. Data from Huagapo Cave in Peru suggest the ITCZ shifted south during the Little Ice Age (circa 1300–1850), but a shift as far into South America as Huagapo should have led to dry conditions in Central America, which is inconsistent with climate models. To resolve the issue, geologist Yemane Asmerom and colleagues collected data from Yok Balum Cave in Central America and compared them with the Huagapo data. They concluded that during the Little Ice Age, the ITCZ may have expanded northward and southward rather than simply shifted.

Which finding from Asmerom and colleagues’ study, if true, would most directly support their conclusion?

- A. Neither the Yok Balum data nor the Huagapo data show significant local variations in temperature during the Little Ice Age.
- B. Both the Yok Balum data and the Huagapo data show increased temperatures and prolonged dry conditions during the Little Ice Age.
- C. The Yok Balum data show prolonged dry conditions during the same portions of the Little Ice Age in which the Huagapo data show heightened levels of rainfall.
- D. The Yok Balum data and the Huagapo data show strongly correlated patterns of high rainfall during the Little Ice Age.

ID: 7c966237 Answer

Correct Answer: D

Rationale

Choice D is the best answer because it presents a finding that, if true, would support Asmerom and colleagues’ conclusion that the ITCZ may have expanded northward and southward rather than shifting south during the Little Ice Age. The text indicates that the ITCZ, a band of clouds in the tropics that is a significant rainfall source, can change position. Data from Peru’s Huagapo Cave suggest that the ITCZ shifted south during the Little Ice Age. But according to the text, if the ITCZ moved into South America in that way, then Central America should have been drier than climate models suggest it was. In other words, rainfall should have been reduced in Central America because the ITCZ, a significant rainfall source, had shifted into South America, but climate models do not show such a reduction in Central America. The text goes on to say that Asmerom and colleagues tried to resolve this apparent conflict by collecting data from Yok Balum cave in Central America and comparing them with data from Huagapo, which led the researchers to conclude that the ITCZ may have expanded both northward and southward rather than simply shifting south. If it is true that Yok Balum in Central America and Huagapo in South America show strongly correlated patterns of high rainfall during the Little Ice Age, such a finding would support Asmerom and colleagues’ conclusion by suggesting that the two areas were affected by the same rainfall source, and thus that the ITCZ may have expanded rather than shifted.

Choice A is incorrect because there is no information in the text about how, if at all, the ITCZ affects temperature in areas where it is located. Rather, the text states that temperature variations across Earth’s hemispheres can shift the position of the ITCZ. Finding that neither Yok Balum nor Huagapo data show evidence of significant local variations in temperature during the Little Ice Age would have no clear bearing on Asmerom and colleagues’ claim. Choice B is incorrect because finding that both Yok Balum

and Huagapo experienced prolonged dry conditions during the Little Ice Age would not support Asmerom and colleagues' conclusion that the ITCZ, a major source of rainfall, may have expanded northward and southward rather than simply shifting south. Dry conditions in both locations would suggest that the ITCZ did not cover either location. Additionally, finding that temperatures were elevated in both locations would have no clear bearing on Asmerom and colleagues' conclusion, since there is no information in the text that indicates how, if at all, the ITCZ affects temperature. Choice C is incorrect because finding that Yok Balum experienced prolonged dry conditions at the same time that Huagapo experienced high rainfall would weaken Asmerom and colleagues' conclusion, not strengthen it. Such a finding would suggest that the ITCZ shifted south and left Central America dry rather than expanding both northward and southward.

Question Difficulty: Hard

# Question ID 73a6cb79

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 73a6cb79

Baltimore, Maryland, has installed engineered structures along 71% of its shoreline to protect infrastructure from wave erosion and other hazards, a practice known as shoreline hardening. To evaluate the responses of waterbirds to two types of hardening structures—riprap and bulkheads—Diann Prosser et al. surveyed waterbird communities consisting of the tundra swan, the great blue heron, and 62 other species at different sites in the Chesapeake Bay on the US East Coast. Utilizing the Index of Waterbird Community Integrity (IWCI), on which a high score corresponds to high community integrity, the researchers found that bulkheads are more strongly negatively correlated with waterbird community integrity than is riprap.

Which finding, if true, would most directly illustrate the researchers’ finding?

- A. The difference in average IWCI scores for waterbird communities at Stony and Old Road, two sites with a higher percentage of shoreline consisting of bulkheads than of riprap, was statistically insignificant.
- B. Waterbird communities at Old Road, a site with a relatively high percentage of shoreline consisting of bulkheads, had lower average IWCI scores than did waterbird communities at Miles, a site with a relatively high percentage of shoreline consisting of riprap.
- C. Waterbird communities at Curtis, a site with a high percentage of shoreline consisting of bulkheads and riprap, had lower average IWCI scores than did waterbird communities at Onancock, a site with a low percentage of shoreline consisting of bulkheads and riprap.
- D. Waterbird communities at Curtis, a site with equal percentages of shoreline consisting of bulkheads and riprap, had higher average IWCI scores than did waterbird communities at Miles, a site with different percentages of shoreline consisting of bulkheads and riprap.

ID: 73a6cb79 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly illustrate the researchers’ finding about waterbird responses to shoreline hardening structures. The text explains that using the IWCI, an index on which higher scores indicate higher community integrity, researchers found that bulkheads are more strongly negatively correlated with waterbird community integrity than riprap is—that is, that bulkheads reduce the integrity of waterbird communities more than riprap does. The finding that waterbird communities at a site with a relatively high percentage of bulkheads along the shoreline (Old Road) had lower average IWCI scores than waterbird communities at a site with a relatively high percentage of riprap along the shoreline (Miles) did would illustrate the researchers’ finding, since it would be an example of lower waterbird community integrity in a location with substantial bulkhead presence than in a location with substantial riprap presence.

Choice A is incorrect because a finding of similar waterbird community integrity in two sites predominated by bulkheads wouldn’t reveal anything about waterbird community integrity at sites predominated by riprap or how waterbird community integrity compares between the two types of sites. Thus, the finding wouldn’t illustrate the discovery of a difference in how bulkheads and

riprap correlate with waterbird community integrity. Choice C is incorrect because it presents a finding that compares waterbird community integrity at sites with different overall amounts of shoreline hardening but without distinguishing between bulkheads and riprap. Such a distinction would be necessary to illustrate the researchers' finding of a difference in how bulkheads and riprap each correlate with waterbird community integrity. Choice D is incorrect because it presents a finding that addresses a difference in waterbird community integrity between one site with equal percentages of bulkheads and riprap along its shoreline (Curtis) and one site with unequal percentages of bulkheads and riprap (Miles) but without indicating whether bulkheads or riprap were more prevalent at Miles. This finding wouldn't provide any clear information about how bulkheads and riprap each correlate with waterbird community integrity, so it wouldn't illustrate the researchers' finding of a difference between those correlations.

Question Difficulty: Hard

# Question ID beb7b572

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: beb7b572

Archaeologist Weiwei Wang and her colleagues analyzed footed grinding slabs and other food-preparation tools excavated from Óc Eo, a Southeast Asian port city that flourished between the first and sixth centuries CE. Wang and colleagues recovered microscopic remnants of turmeric and other spices from the surfaces of the tools. Turmeric is native to South Asia, more than a thousand miles west of Óc Eo, and the researchers showed that the footed grinding slabs at Óc Eo are very similar to footed grinding slabs common throughout South Asia from around 500 BCE to 300 CE. Wang and colleagues’ findings therefore indicate that there must have been a trade link, whether direct or indirect, between the two regions.

Which finding, if true, would directly weaken the conclusion about Wang and her colleagues’ findings that is presented in the text?

- A. Some of the spices recovered from Óc Eo are native to the Maluku Islands, which are located approximately 2,000 miles southeast of Óc Eo.
- B. In the first through third centuries CE, there was a significant migration of people from South Asia to Southeast Asia.
- C. Other types of artifacts originating in South Asia and dating to the first through sixth centuries CE have been found throughout Southeast Asia.
- D. The people of Óc Eo and several communities in South Asia regularly traded with people in the region that is now the Southeast Asian country of Malaysia no later than the first century CE.

ID: beb7b572 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly weaken the conclusion that Wang and colleagues’ findings indicate a trade link between Óc Eo and South Asia. The text explains that turmeric (native to South Asia) and footed grinding slabs of a style common in South Asia between roughly 500 BCE and 300 CE were found at Óc Eo, a Southeast Asian port that flourished between the first and sixth centuries CE. From this evidence, the text concludes that these items must have reached Óc Eo through trade. If, however, there was a significant migration of people from South Asia to Southeast Asia during the first through third centuries CE, that would offer an alternative explanation: South Asian people could have brought turmeric and grinding slabs with them when they migrated. Thus, the finding would weaken the conclusion that trade must account for the items’ presence at Óc Eo.

Choice A is incorrect. A finding involving spices from a different region—the Maluku Islands, southeast of Óc Eo—wouldn’t undermine the conclusion because it wouldn’t reveal how the items from South Asia, a region to the west, reached Óc Eo. If anything, such a finding might be further evidence of broad trade networks involving Óc Eo. Choice C is incorrect. If it were true that other South Asian artifacts from the period when Óc Eo flourished have been found throughout Southeast Asia, that would suggest only that South Asian items other than turmeric and footed grinding slabs were present in the region at the time; it wouldn’t reveal anything about how any of those items reached Southeast Asia from South Asia. If anything, the widespread presence of South Asian artifacts in Southeast Asia during this period could be seen as further support for a trade network

connecting the regions. Choice D is incorrect because the finding that Óc Eo and some South Asian communities traded with people in another Southeast Asian location (what is now Malaysia) would suggest that this location could have been an intermediary for the movement of items from South Asia to Óc Eo. Such a finding would support, not weaken, the plausibility of an indirect trade link that's presented in the conclusion.

Question Difficulty: Hard

# Question ID 1354e284

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 1354e284

“Odalie” is an 1899 short story by Alice Dunbar-Nelson. In the story, a young woman named Odalie attends the annual Mardi Gras carnival in New Orleans, where she lives with her guardian Tante Louise. Dunbar-Nelson portrays Odalie as eager to escape the monotony of her everyday life: \_\_\_\_\_

Which quotation from “Odalie” most effectively illustrates the claim?

- A. “Mardi Gras was a tiresome day, after all, she sighed, and Tante Louise agreed with her for once.”
- B. “In the old French house on Royal Street, with its quaint windows and Spanish courtyard green and cool, and made musical by the plashing of the fountain and the trill of caged birds, lived Odalie in convent-like seclusion.”
- C. “When one is shut up in a great French house with a grim sleepy tante and no companions of one’s own age, life becomes a dull thing, and one is ready for any new sensation.”
- D. “It was Mardi Gras day at last, and early through her window Odalie could hear the jingle of folly bells on the [participants’] costumes, the tinkle of music, and the echoing strains of songs.”

ID: 1354e284 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it most effectively uses a quotation from “Odalie” to illustrate the claim that Odalie is eager to escape the monotony, or tedious lack of variety, of her everyday life. In the quotation, Odalie describes feeling “shut up” and complains that she has “no companions” except for her “sleepy tante.” Odalie goes on to say that, as a result, her life is “dull” and she is “ready for any new sensation,” meaning she wants a change. This suggests that Odalie wishes to get away from her monotonous everyday life.

Choice A is incorrect. Although this quotation includes the word “tiresome,” which means dull, it does so to suggest Odalie’s negative feelings about Mardi Gras, which is a once-a-year celebration, not her feelings about her everyday life. This quotation therefore doesn’t express that Odalie’s everyday life is monotonous or that she wishes to escape. Choice B is incorrect. Although this quotation ends by saying that Odalie lives in seclusion, or isolation, it doesn’t express that Odalie’s everyday life is monotonous or that she wishes to escape. Instead, it describes the pleasant qualities of the house Odalie lives in, saying that it has “quaint windows” and a “green and cool” courtyard that is “made musical” by the sounds of a fountain and pet birds. Choice D is incorrect because this quotation describes the lively sounds of a Mardi Gras celebration that Odalie hears through her window, not the monotony of Odalie’s everyday life or her wish to escape.

Question Difficulty: Hard

Question ID db71aeaa

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: db71aeaa

Ablation Rates for Three Elements in Cosmic Dust, by Dust Source

| Element   | SPC | AST | HTC | OCC  |
|-----------|-----|-----|-----|------|
| iron      | 20% | 28% | 90% | 98%  |
| potassium | 44% | 74% | 97% | 100% |
| sodium    | 45% | 75% | 99% | 100% |

Earth’s atmosphere is bombarded by cosmic dust originating from several sources: short-period comets (SPCs), particles from the asteroid belt (ASTs), Halley-type comets (HTCs), and Oort cloud comets (OCCs). Some of the dust’s material vaporizes in the atmosphere in a process called ablation, and the faster the particles move, the higher the rate of ablation. Astrophysicist Juan Diego Carrillo-Sánchez led a team that calculated average ablation rates for elements in the dust (such as iron and potassium) and showed that material in slower-moving SPC or AST dust has a lower rate than the same material in faster-moving HTC or OCC dust. For example, whereas the average ablation rate for iron from AST dust is 28%, the average rate for \_\_\_\_\_

Which choice most effectively uses data from the table to complete the example?

- A. iron from SPC dust is 20%.
- B. sodium from OCC dust is 100%.
- C. iron from HTC dust is 90%.
- D. sodium from AST dust is 75%.

ID: db71aeaa Answer

Correct Answer: C

Rationale

Choice C is the best answer because it most effectively completes the example regarding the ablation rate of iron. The table shows the ablation rates for three elements—iron, potassium, and sodium—found in cosmic dust that comes from one of four sources. The text says that the ablation rate for a given element in slower-moving SPC and AST dust was lower than the ablation rate for that same element in faster-moving HTC or OCC dust. The text then presents the first part of an example of this pattern, describing an ablation rate of 28% for iron in AST dust. The information that iron from HTC dust had an ablation rate of 90% is therefore the most effective way to complete this example—the comparison of a relatively low ablation rate for iron in slower-moving AST dust with a relatively high ablation rate for iron in faster-moving HTC dust illustrates the tendency of ablation rates for a given element to be lower in slower-moving dust than in faster-moving dust.

Choice A is incorrect because the text indicates that SPC dust, like AST dust, moves relatively slowly; a comparison of the ablation rates of iron from two slower-moving dust sources could not be an example of the difference between ablation rates in slower-moving dust and faster-moving dust, which is the pattern that the example is supposed to illustrate. Choice B is incorrect because the example in the text is supposed to illustrate the difference in the ablation rates of the same element from slower-moving dust and faster-moving dust, and the first part of the example provides data about the ablation rate of iron, which means the second part of the example must also be about the ablation rate of iron, not the ablation rate of sodium. Choice D is incorrect because the example in the text is supposed to illustrate the difference in the ablation rates of the same element from slower-moving dust and faster-moving dust, and the first part of the example provides data about the ablation rate of iron, which means the second part of the example must also be about the ablation rate of iron, not the ablation rate of sodium. Additionally, any ablation rate from AST dust would be ineffective in this example since AST dust is referenced in the first part of the example and thus additional data focused on AST dust would not illustrate a variation across dust types.

Question Difficulty: Hard

# Question ID bf7613c5

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: bf7613c5

*King Lear* is a circa 1606 play by William Shakespeare. In the play, the character of King Lear attempts to test his three daughters’ devotion to him. He later expresses regret for his actions, as is evident when he \_\_\_\_\_

Which choice most effectively uses a quotation from *King Lear* to illustrate the claim?

- A. says of himself, “I am a man / more sinned against than sinning.”
- B. says during a growing storm, “This tempest will not give me leave to ponder / On things would hurt me more.”
- C. says to himself while striking his head, “Beat at this gate that let thy folly in / And thy dear judgement out!”
- D. says of himself, “I will do such things— / What they are yet, I know not; but they shall be / The terrors of the earth!”

ID: bf7613c5 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it most effectively uses a quotation from *King Lear* to illustrate the claim that King Lear expresses regret for his actions. In the quotation, Lear describes striking himself on the head—the same act he’s engaged in as he speaks, and one that suggests he’s deeply upset with himself. Referring to himself in the second person (with “thy”), the character exclaims “Beat at this gate that let thy folly in / And thy dear judgement out!” Lear refers metaphorically to his own mind as a gate that has allowed folly, or poor judgement, to enter and good judgement to escape. This suggests that Lear regrets his attempts to test his three daughters’ devotion to him, regarding those attempts as examples of the folly that has entered the gate of his mind.

Choice A is incorrect because this quotation doesn’t express King Lear’s sense of regret over his own actions; instead, it expresses his belief that the harm that others have done to him (or the extent to which they have “sinned against” him) outweighs whatever harm he himself has caused by “sinning.” Choice B is incorrect because this quotation doesn’t express King Lear’s sense of regret over his own actions; instead, it expresses his thoughts about an approaching storm (“this tempest”), which he believes “will not give [him] leave to ponder,” or time to consider, the harm that he will continue to experience (“things” that “would hurt [him] more”). Choice D is incorrect because this quotation expresses King Lear’s vow to commit terrible actions (or “things” that “shall be / The terrors of the earth”) in the future, not his regret over actions that he’s already taken.

Question Difficulty: Hard

# Question ID 835c61ef

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 835c61ef

Data Sources for Neptune Temperature Analysis

| Instrument                                           | Observatory                   | Data type        | Observation years |
|------------------------------------------------------|-------------------------------|------------------|-------------------|
| TEXES (Texas Echelon Cross Echelle Spectrograph)     | Gemini Observatory            | spectroscopy     | 2007, 2019        |
| T-ReCS (Thermal-Region Camera Spectrograph)          | Gemini Observatory            | infrared imaging | 2007, 2010        |
| LWS (Long Wavelength Spectrometer)                   | Keck Observatory              | infrared imaging | 2003              |
| VISIR (VLT Imager and Spectrometer for mid-InfraRed) | European Southern Observatory | spectroscopy     | 2006              |

Julianne I. Moses and colleagues have reported that Neptune may have cooled significantly between 2003 and 2020. The team reached this conclusion by analyzing existing infrared imaging and spectroscopy data about the planet obtained from various instruments in different years. Of the team’s sources listed in the table, the earliest example of spectroscopy data included in the analysis was obtained in \_\_\_\_\_

Which choice most effectively uses data from the table to complete the text?

- A. 2007 using TEXES at the Gemini Observatory.
- B. 2007 using T-ReCS at the Gemini Observatory.
- C. 2006 using VISIR at the European Southern Observatory.
- D. 2003 using LWS at the W.M. Keck Observatory.

ID: 835c61ef Answer

Correct Answer: C

Rationale

Choice C is the best answer because it effectively completes the text’s discussion of Moses and colleagues’ analysis of changes in Neptune’s temperature by using data from the table to identify the source of the earliest example of spectroscopy data included in this analysis. The text indicates that Moses and colleagues analyzed infrared imaging and spectroscopy data about Neptune obtained in different years by various instruments. The table lists the observatories where these instruments are housed, the type of data each instrument collected (infrared imaging or spectroscopy), and the years in which the instruments’ observations were made. According to the table, only two of these instruments obtained spectroscopy data: VISIR at the European Southern Observatory, which made its observations in 2006, and TEXES at the Gemini Observatory, which made its observations in later years (2007 and 2019). Although two other instruments are also included in the table, they obtained infrared imaging data, not spectroscopy data. Therefore, the earliest example of spectroscopy data included in the researchers’ analysis is the data obtained by VISIR at the European Southern Observatory in 2006.

Choice A is incorrect. Although the table indicates that TEXES at the Gemini Observatory collected spectroscopy data in 2007 and 2019, the table also indicates that this type of data was collected in 2006 by VISIR at the European Southern Observatory. Because the VISIR data were collected in the previous year, the data obtained in 2007 by TEXES are not the earliest example of spectroscopy data included in Moses and team’s analysis of Neptune’s temperature. Choice B is incorrect because the table indicates that T-ReCS at the Gemini Observatory collected infrared imaging data, not spectroscopy data. T-ReCS therefore cannot be the source of the earliest example of spectroscopy data that is included in Moses and colleagues’ analysis of Neptune’s temperature. Additionally, the T-ReCS data were collected in 2007, meaning that these data were obtained later than any type of data collected in 2006. Choice D is incorrect. Although the table indicates that data from LWS at the W.M. Keck Observatory were obtained in 2003, making these data the earliest example of any type of data included in the analysis, the table also indicates that LWS collected infrared imaging data, not spectroscopy data. LWS therefore cannot be the source of the earliest example of spectroscopy data included in Moses and team’s analysis of Neptune’s temperature.

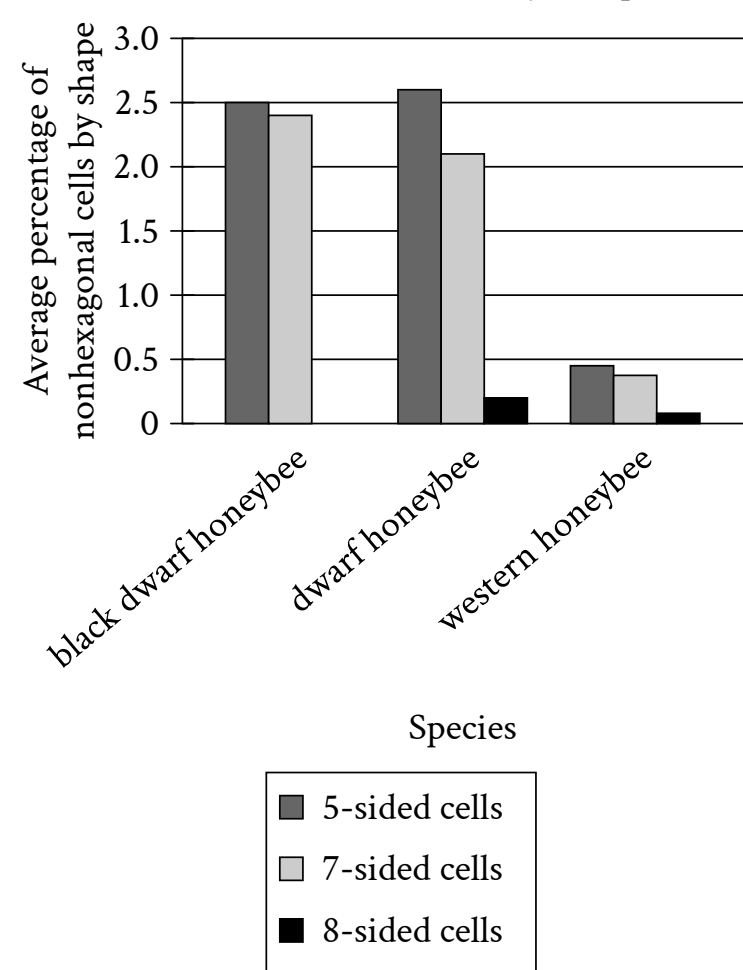
Question Difficulty: Hard

Question ID dced0ae6

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: dced0ae6

Percentage of Nonhexagonal Cells in Hives of Three Honeybee Species



Honeybee hives consist mainly of hexagonal (six-sided) units called cells, in which queens lay eggs. Hexagonal cells for eggs that develop into nonreproductive workers are smaller than those for eggs that develop into reproductive drones, though the size difference varies by species. Difference in cell size results in a construction problem—it’s hard to neatly connect sections of small cells to sections of large cells—that worsens as the difference increases. To fill in gaps between the sections when building a hive, bees rely on cells that have more or fewer than six sides. A student studying beehive structure consults data on three species, concluding that \_\_\_\_\_

Which choice most effectively uses data from the graph to complete the student’s conclusion?

- A. cells for worker eggs are probably closer in size to cells for drone eggs in the hives of the western honeybee than in the hives of the dwarf honeybee and the black dwarf honeybee.

- B. both the western honeybee and the black dwarf honeybee probably reserve eight-sided cells for drone eggs, while the dwarf honeybee likely deposits drone eggs in seven-sided cells.
- C. the western honeybee probably relies on many more geometrical shapes when constructing cells than either the dwarf honeybee or the black dwarf honeybee does.
- D. the percentage of hexagonal cells is probably slightly lower in the hives of the western honeybee than in the hives of the dwarf honeybee and the black dwarf honeybee.

ID: dced0ae6 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the graph to complete the student's conclusion about beehive structure. The text explains that in the hives of honeybees, the hexagonal cells housing drone eggs are larger than the hexagonal cells housing worker eggs, and that this size difference results in a construction problem that the bees address by using nonhexagonal cells to fill gaps between sections of drone-egg cells and worker-egg cells. The text also states that the size difference between drone-egg cells and worker-egg cells varies by species of honeybee. The graph displays data on the percentage of nonhexagonal cells in the hives of three species. In the hives of the western honeybee, the percentages of five-sided, seven-sided, and eight-sided cells are all less than 0.5%. But in the hives of the black dwarf honeybee, the percentages of five-sided and seven-sided cells are higher than those for the western honeybee: about 2.5% for both. And for the dwarf honeybee, the percentages of five-sided and seven-sided cells are also higher than those for the western honeybee: slightly over 2.5% and slightly over 2.0%, respectively; additionally, the dwarf honeybee possesses a higher percentage of eight-sided cells than the western honeybee does. Taken altogether, the graph shows that the hives of the western honeybee consist of a smaller percentage of nonhexagonal cells than the hives of the two other species do. Since the nonhexagonal cells exist only to solve the construction problem arising from the difference in size between drone-egg cells and worker-egg cells, a smaller percentage of nonhexagonal cells would be associated with a smaller size difference between the two types of cells. Therefore, it can be concluded from the data that worker-egg cells are probably closer in size to drone-egg cells in the hives of the western honeybee than in the hives of the other two species.

Choice B is incorrect because, as the text states, honeybee species deposit their eggs in hexagonal cells, not in nonhexagonal ones. Thus, the western honeybee and black dwarf honeybee wouldn't deposit drone eggs in eight-sided cells, and the dwarf honeybee wouldn't deposit drone eggs in seven-sided cells. Choice C is incorrect. The text explains that honeybees rely mainly on one geometric shape, the hexagon, when constructing their hives, and the graph shows that the western honeybee relies on the same nonhexagonal shapes as the dwarf honeybee does: five-sided, seven-sided, and eight-sided cells. In other words, the western honeybee and dwarf honeybee rely on the same number of geometric shapes. For the black dwarf honeybee, the graph displays data only for five-sided and seven-sided cells, which suggests a total absence of eight-sided cells. Yet this would be only one less nonhexagonal shape than is seen in the western honeybee. Thus, based on the graph, it would be inaccurate to say that the western honeybee relies on "many more" geometrical shapes than the other two species do. Choice D is incorrect. As the text explains, honeybee hives consist mainly of hexagonal cells, and sections of nonhexagonal cells are used to connect sections of hexagonal cells of different sizes. Since the graph indicates that the percentage of nonhexagonal cells is lower for the western honeybee than it is for the dwarf honeybee or black dwarf honeybee, the western honeybee would conversely have a *higher* percentage of hexagonal cells than either the dwarf honeybee or black dwarf honeybee does, not a lower percentage.

Question Difficulty: Hard

Question ID ea240782

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: ea240782

Neural networks are computer models intended to reflect the organization of human brains and are often used in studies of brain function. According to an analysis of 11,000 such networks, Rylan Schaeffer and colleagues advise caution when drawing conclusions about brains from observations of neural networks. They found that when attempting to mimic grid cells (brain cells used in navigation), while 90% of the networks could accomplish navigation-related tasks, only about 10% of those exhibited any behaviors similar to those of grid cells. But even this approximation of grid-cell activity has less to do with similarity between the neural networks and biological brains than it does with the rules programmed into the networks.

Which finding, if true, would most directly support the claim in the underlined sentence?

- A. The rules that allow for networks to exhibit behaviors like those of grid cells have no equivalent in the function of biological brains.
- B. The networks that do not exhibit behaviors like those of grid cells were nonetheless programmed with rules that had proven useful in earlier neural-network studies.
- C. Neural networks can often accomplish tasks that biological brains do, but they are typically programmed with rules to model multiple types of brain cells simultaneously.
- D. Once a neural network is programmed, it is trained on certain tasks to see if it can independently arrive at processes that are similar to those performed by biological brains.

ID: ea240782 Answer

Correct Answer: A

Rationale

Choice A is the best answer. While many networks can perform navigation tasks, or even mimic grid cells, it doesn't mean they're actually behaving like biological brains—this finding suggests that the rules that govern neural network behavior are completely unlike the way real brains work.

Choice B is incorrect. Although it mentions the rules that are programmed into the networks, this finding wouldn't clarify whether or not these rules have anything to do with the function of biological brains. Choice C is incorrect. This choice suggests that neural networks are modeled after multiple types of brain cells, which sidesteps the question of whether these rule-based networks are genuinely similar to biological brains. Choice D is incorrect. This choice doesn't address the key point of the claim, which is that the apparent similarity between neural networks and biological brains is only due to the rules programmed into the networks. It focuses on training tasks, not the originally programmed rules.

Question Difficulty: Hard

Question ID e1ea3484

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: e1ea3484

Tadpole Body Mass and Toxin Production after Three Weeks in Ponds

| Population density | Average tadpole body mass (milligrams) | Average number of distinct bufadienolide toxins per tadpole | Average amount of bufadienolide per tadpole (nanograms) | Average bufadienolide concentration (nanograms per milligram of tadpole body mass) |
|--------------------|----------------------------------------|-------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------|
| High               | 193.87                                 | 22.69                                                       | 5,815.51                                                | 374.22                                                                             |
| Medium             | 254.56                                 | 21.65                                                       | 5,525.72                                                | 230.10                                                                             |
| Low                | 258.97                                 | 22.08                                                       | 4,664.99                                                | 171.43                                                                             |

Ecologist Veronika Bókony and colleagues investigated within-species competition among common toads (*Bufo bufo*), a species that secretes various unpleasant-tasting toxins called bufadienolides in response to threats. The researchers tested *B. bufo* tadpoles’ responses to different levels of competition by creating ponds with different tadpole population densities but a fixed amount of food. Based on analysis of the tadpoles after three weeks, the researchers concluded that increased competition drove bufadienolide production at the expense of growth.

Which choice uses data from the table to most effectively support the researchers’ conclusion?

- A. The difference in average tadpole body mass was small between the low and medium population density conditions and substantially larger between the low and high population density conditions.
- B. Tadpoles in the low and medium population density conditions had substantially lower average bufadienolide concentrations but had greater average body masses than those in the high population density condition.
- C. Tadpoles in the high population density condition displayed a relatively modest increase in the average amount of bufadienolide but roughly double the average bufadienolide concentration compared to those in the low population density condition.
- D. Tadpoles produced approximately the same number of different bufadienolide toxins per individual across the population density conditions, but average tadpole body mass decreased as population density increased.

ID: e1ea3484 Answer

Correct Answer: B

Rationale

Choice B is the best answer. This data shows that the tadpoles in the high-density pond (meaning those with the most competition) didn’t grow as big as the other two groups but produced more bufadienolide.

Choice A is incorrect. This doesn’t fully support the conclusion. It doesn’t include any data about bufadienolide production. Choice C is incorrect. This doesn’t fully support the conclusion. It doesn’t include any data about growth. Choice D is incorrect. This

doesn't fully support the conclusion. It doesn't demonstrate that the tadpoles in the high-density pond produced more bufadienolide overall. The fact that they didn't produce more kinds of bufadienolide isn't relevant to the conclusion.

Question Difficulty: Hard

# Question ID 45985f7e

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 45985f7e

Declining fishing technology costs and overexploitation of near-shore fishing grounds have made isolated oceanic reefs, which often lack regulatory protections, increasingly attractive to commercial and sport fishers. A team led by Octavio Aburto-Oropeza surveyed the biomass density and species composition of two isolated reefs: Alacranes, a protected (fishing prohibited) reef 135 kilometers from the Yucatan Peninsula, and Bajos del Norte, an unprotected reef 25 kilometers farther out to sea. Species at the highest level of the trophic pyramid constituted 34% of the biomass at Alacranes and 10% of the biomass at Bajos del Norte. Aburto-Oropeza and colleagues attribute this difference to the two reefs’ difference in regulatory status.

Which finding, if true, would most directly support Aburto-Oropeza and colleagues’ explanation?

- A. Total biomass at Alacranes is much greater than total biomass at Bajos del Norte, though the reefs’ biomass densities are similar.
- B. Some of the species that compose the highest trophic level at Bajos del Norte are not found at Alacranes.
- C. It is somewhat more expensive for commercial and sport fishers to reach Bajos del Norte than it is to reach Alacranes.
- D. Commercial and sport fishers tend to disproportionately remove species at the highest trophic level.

ID: 45985f7e Answer

Correct Answer: D

Rationale

Choice D is the best answer because it provides the finding that, if true, would most directly support Aburto-Oropeza and colleagues’ explanation that species composition differs between Alacranes and Bajos del Norte because of a difference in the regulation of fishing at the two reefs. The text explains that isolated oceanic reefs are often unprotected and are increasingly attracting commercial and sport fishing activity. According to the text, when Aburto-Oropeza and colleagues surveyed Alacranes, an isolated reef where fishing is prohibited, and Bajos del Norte, an isolated reef that is unprotected, they found that species at the highest trophic level (that is, top predators) make up a smaller proportion of the total mass of all living organisms at Bajos del Norte (10%) than they do at Alacranes (34%). If it were true that commercial and sport fishers tend to disproportionately remove top predators—that is, that they catch them at a higher rate than they catch other species—this would support the explanation that the allowance of fishing at Bajos del Norte and the prohibition of fishing at Alacranes has led to a lower proportion of top predator species remaining in the total biomass at Bajos del Norte.

Choice A is incorrect. To support the researchers’ claim that the role of fishing regulations accounts for Alacranes having a greater proportion of species at the highest trophic level (top predators) than Bajos del Norte does, a finding would need to help explain how fishing affects the presence of top predator species in particular; the finding that the two reefs have similar biomass densities (that is, about the same mass of living organisms per unit) and that Alacranes has a much greater total biomass (total mass of living organisms) wouldn’t reveal anything about the species composition at each reef or help explain why the *proportion* of top predators in the total biomass at each reef differs. This finding might simply suggest that Alacranes is a larger reef, with more units at that density. Choice B is incorrect because the finding that there are species at the highest trophic level (top

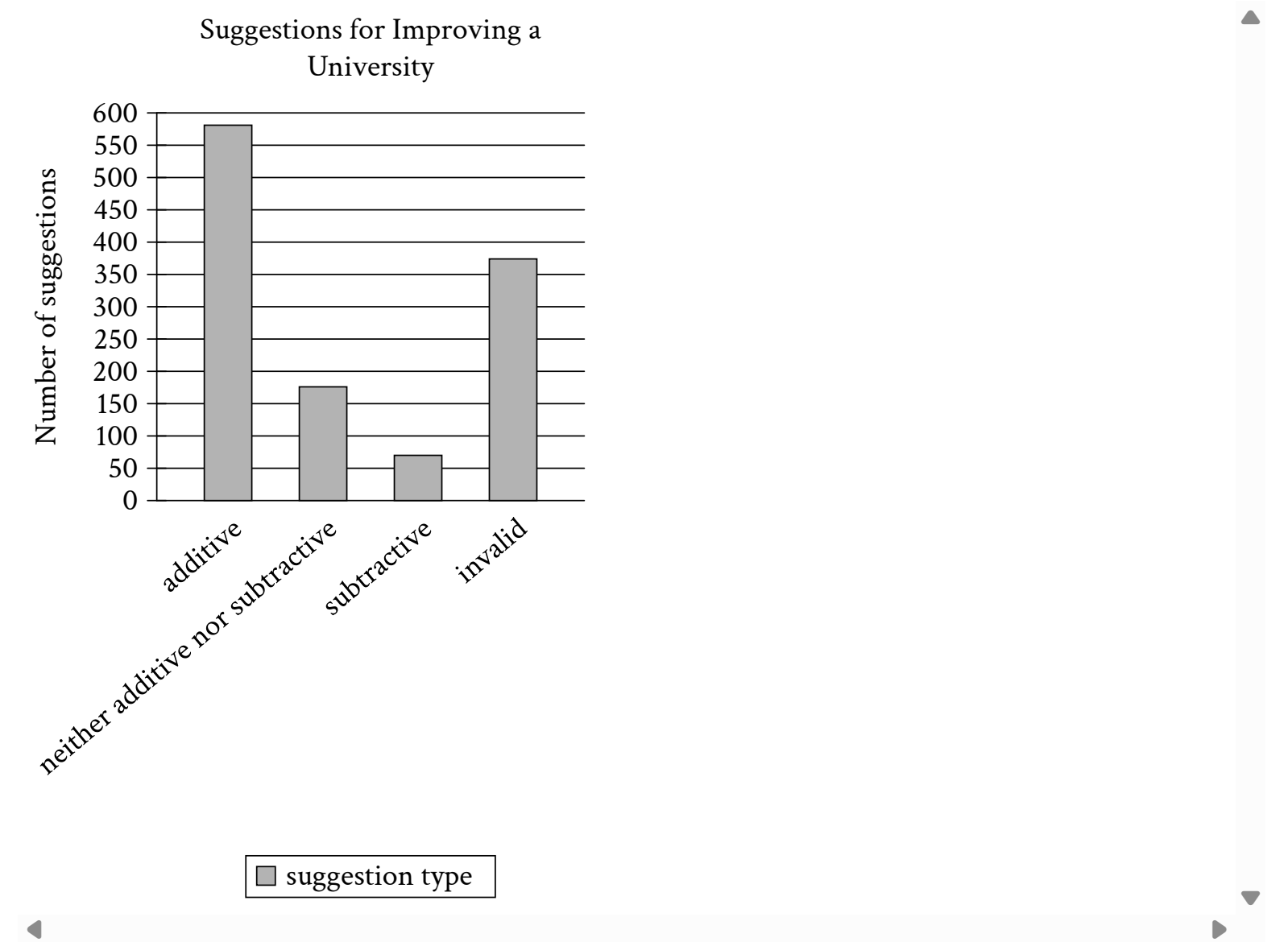
predators) at Bajos del Norte that aren't found at Alacranes would reveal only that there are some different species in the reefs' total biomasses (total mass of living organisms) but wouldn't explain why that's the case; this finding wouldn't be clearly connected to the role of fishing regulations, which is what, according to the researchers, accounts for the reefs having different proportions of top predators in their total masses. Choice C is incorrect. To support the researchers' claim that the role of fishing regulations accounts for Alacranes having a greater proportion of species at the highest trophic level (top predators) than Bajos del Norte does, a finding would need to help explain how fishing affects the presence of top predator species in particular, but different costs of reaching the two reefs wouldn't affect fishing behavior at all because fishing isn't even allowed on one of the reefs.

Question Difficulty: Hard

Question ID 34317605

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 34317605



Gabrielle Adams and colleagues reviewed suggestions for improving a university that had been submitted to the university’s president. They coded each suggestion as additive (the idea suggested adding something new to the university), subtractive (the idea suggested removing something from the university), neither additive nor subtractive, or invalid (the idea was not comprehensible). The data illustrated people’s tendency to overlook the possibility of removing things to achieve improvements:

Which choice most effectively uses data in the graph to complete the statement?

A. around 175 suggestions were coded as neither additive nor subtractive, whereas around 575 suggestions were coded as additive.

- B. more than 350 suggestions were coded as invalid, whereas fewer than 100 suggestions were coded as subtractive.
- C. fewer than 100 suggestions were coded as subtractive, whereas more than 550 suggestions were coded as additive.
- D. around 575 suggestions were coded as additive, whereas around 175 suggestions were coded as subtractive.

**ID: 34317605 Answer**

Correct Answer: C

Rationale

Choice C is the best answer. This choice shows that people suggested removing things to achieve improvements a lot less often than they suggested adding things, which supports the claim that people tend not to think of removing things as a likely way to improve the university.

Choice A is incorrect. This choice doesn't support the claim. We are looking to prove that people suggested subtractive means of achieving improvements less often than other means, but this choice doesn't address how often people made subtractive suggestions. Choice B is incorrect. This choice doesn't support the claim. Invalid responses were incomprehensible, so we can't compare what they were suggesting to what was being suggested in subtractive responses. Choice D is incorrect. This choice misreads the graph. Fewer than 100 suggestions were coded as subtractive. 175 is the approximate number of suggestions coded as "neither additive or subtractive."

Question Difficulty: Hard

# Question ID 778226de

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 778226de

When digging for clams, their primary food, sea otters damage the roots of eelgrass plants growing on the seafloor. Near Vancouver Island in Canada, the otter population is large and well established, yet the eelgrass meadows are healthier than those found elsewhere off Canada’s coast. To explain this, conservation scientist Erin Foster and colleagues compared the Vancouver Island meadows to meadows where otters are absent or were reintroduced only recently. Finding that the Vancouver Island meadows have a more diverse gene pool than the others do, Foster hypothesized that damage to eelgrass roots increases the plant’s rate of sexual reproduction; this, in turn, boosts genetic diversity, which benefits the meadows’ health overall.

Which finding, if true, would most directly undermine Foster’s hypothesis?

- A. At some sites in the study, eelgrass meadows are found near otter populations that are small and have only recently been reintroduced.
- B. At several sites not included in the study, there are large, well-established sea otter populations but no eelgrass meadows.
- C. At several sites not included in the study, eelgrass meadows’ health correlates negatively with the length of residence and size of otter populations.
- D. At some sites in the study, the health of plants unrelated to eelgrass correlates negatively with the length of residence and size of otter populations.

ID: 778226de Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents a finding that, if true, would weaken Foster’s hypothesis that damage to eelgrass roots improves the health of eelgrass meadows by boosting genetic diversity. The text indicates that sea otters damage eelgrass roots but that eelgrass meadows near Vancouver Island, where there’s a large otter population, are comparatively healthy. When Foster and her colleagues compared the Vancouver Island eelgrass meadows to those that don’t have established otter populations, the researchers found that the Vancouver Island meadows are more genetically diverse than the other meadows are. This finding led Foster to hypothesize that damage to the eelgrass roots encourages eelgrass reproduction, thereby improving genetic diversity and the health of the meadows. If, however, other meadows not included in the study are less healthy the larger the local otter population is and the longer the otters have been in residence, that would suggest that damage to the eelgrass roots, which would be expected to increase with the size and residential duration of the otter population, isn’t leading meadows to be healthier. Such a finding would therefore weaken Foster’s hypothesis.

Choice A is incorrect because finding that small, recently introduced otter populations are near other eelgrass meadows in the study wouldn’t weaken Foster’s hypothesis. If otter populations were small and only recently established, they wouldn’t be expected to have caused much damage to eelgrass roots, so even if those eelgrass meadows were less healthy than the Vancouver Island meadows, that wouldn’t undermine Foster’s hypothesis. In fact, it would be consistent with Foster’s hypothesis since it would suggest that the greater damage caused by larger, more established otter populations is associated with healthier

meadows. Choice B is incorrect because the existence of areas with otters but without eelgrass meadows wouldn't reveal anything about whether the damage that otters cause to eelgrass roots ultimately benefits eelgrass meadows. Choice D is incorrect because the health of plants other than eelgrass would have no bearing on Foster's hypothesis that damage to eelgrass roots leads to greater genetic diversity and meadow health. It would be possible for otters to have a negative effect on other plants while nevertheless improving the health of eelgrass meadows by damaging eelgrass roots.

Question Difficulty: Hard

# Question ID 08d2f4c1

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 08d2f4c1

Many governments that regularly transfer money to individuals—to provide supplemental incomes for senior citizens, for example—have long done so electronically, but other countries typically have distributed physical money and have only recently developed electronic transfer infrastructure. Researchers studied the introduction of an electronic transfer system in one such location and found that recipients of electronic transfers consumed a different array of foods than recipients of physical transfers of the same amount did. One potential explanation for this result is that individuals conceive of and allocate funds in physical money differently than they conceive of and allocate funds in electronic form.

Which finding from the study, if true, would most directly weaken the potential explanation?

- A. Recipients of electronic transfers typically spent their funds at a slower rate than recipients of physical transfers did.
- B. Nearly every recipient of an electronic transfer withdrew the entire amount in physical money shortly after receiving the transfer.
- C. Recipients of physical transfers tended to purchase food about as frequently as recipients of electronic transfers did.
- D. Some recipients of physical transfers received small amounts of money relatively frequently, while others received large amounts relatively infrequently.

ID: 08d2f4c1 Answer

Correct Answer: B

Rationale

Choice B is the best answer. This would weaken the explanation. If the recipients of electronic money immediately withdrew it all as physical money, then both kinds of recipients ended up spending physical money on food. So there must be some other explanation why those who initially received electronic money ate different kinds of food.

Choice A is incorrect. This wouldn't weaken the explanation. If anything, it actually supports it: it demonstrates that recipients of electronic money and recipients of physical money have different spending habits. Choice C is incorrect. This wouldn't weaken the explanation. The explanation we're testing this choice against is about the way that people might "conceive of and allocate" physical and electronic funds differently. This choice only focuses on the timing, not what they spend the money on. Choice D is incorrect. This would have no impact on the explanation. It doesn't tell us anything about possible differences between the spending habits of those who spend physical money and those who spend money electronically.

Question Difficulty: Hard

Question ID bf26e4b4

|                      |                     |                       |                     |                                              |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: bf26e4b4

Effects of Mycorrhizal Fungi on 3 Plant Species

| Plant species | Mycorrhizal host | Average mass of plants grown in soil containing mycorrhizal fungi (in grams) | Average mass of plants grown in soil treated to kill fungi (in grams) |
|---------------|------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Corn          | yes              | 15.1                                                                         | 3.8                                                                   |
| Marigold      | yes              | 10.2                                                                         | 2.4                                                                   |
| Broccoli      | no               | 7.5                                                                          | 7                                                                     |

Mycorrhizal fungi in soil benefits many plants, substantially increasing the mass of some. A student conducted an experiment to illustrate this effect. The student chose three plant species for the experiment, including two that are mycorrhizal hosts (species known to benefit from mycorrhizal fungi) and one nonmycorrhizal species (a species that doesn't benefit from and may even be harmed by mycorrhizal fungi). The student then grew several plants from each species both in soil containing mycorrhizal fungi and in soil that had been treated to kill mycorrhizal and other fungi. After several weeks, the student measured the plants' average mass and was surprised to discover that \_\_\_\_\_

Which choice most effectively uses data from the table to complete the statement?

- A. broccoli grown in soil containing mycorrhizal fungi had a slightly higher average mass than broccoli grown in soil that had been treated to kill fungi.
- B. corn grown in soil containing mycorrhizal fungi had a higher average mass than broccoli grown in soil containing mycorrhizal fungi.
- C. marigolds grown in soil containing mycorrhizal fungi had a much higher average mass than marigolds grown in soil that had been treated to kill fungi.
- D. corn had the highest average mass of all three species grown in soil that had been treated to kill fungi, while marigolds had the lowest.

ID: bf26e4b4 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively uses data from the table to complete the statement. The text explains that mycorrhizal hosts are plants that benefit from the presence of mycorrhizal fungi in the soil and that some such plants produce more mass when grown in the presence of these fungi, while for nonmycorrhizal species the fungi either have no effect or may be harmful. The experiment included two mycorrhizal hosts (corn and marigold) and one nonmycorrhizal species (broccoli). Given the claim in the text that nonmycorrhizal species will see either no difference or a decrease in mass when

exposed to mycorrhizal fungi, the student would likely have been surprised by the higher average mass for broccoli grown in the presence of the fungi than the broccoli grown in the soil treated to kill fungi.

Choice B is incorrect. Although this choice accurately describes the corn data from the table, the fact that the mycorrhizal host corn is more massive in the presence of the fungi likely fits with what the student expected and would therefore not be surprising. Choice C is incorrect. Although this choice accurately describes the marigold data from the table, the fact that the mycorrhizal host marigold is more massive in the presence of the fungi is likely what the student expected and thus would not be surprising. Choice D is incorrect because it does not accurately represent the data in the table—when grown in soil treated to kill fungi, corn had an average mass of 3.8 g while broccoli had an average mass of 7g—and because making comparisons among the plants in the no-fungi condition, by itself, does not provide a basis to compare the average mass of mycorrhizal hosts and nonmycorrhizal species grown in the presence of the fungi with those grown in the soil treated to kill fungi.

Question Difficulty: Hard

# Question ID c3dddb2d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: c3dddb2d

“On Virtue” is a 1766 poem by Phillis Wheatley. Wheatley addresses the poem directly to the quality of virtue, imploring it to assist her in reaching a future goal: \_\_\_\_\_

Which quotation from “On Virtue” most effectively illustrates the claim?

- A. “Attend me, *Virtue*, thro’ my youthful years! / O leave me not to the false joys of time! / But guide my steps to endless life and bliss.”
- B. “I cease to wonder, and no more attempt / Thine height t’explore, or fathom thy profound.”
- C. “O thou bright jewel in my aim I strive / To comprehend thee. Thine own words declare / Wisdom is higher than a fool can reach.”
- D. “But, O my soul, sink not into despair, / *Virtue* is near thee, and with gentle hand / Would now embrace thee, hovers o’er thine head.”

ID: c3dddb2d Answer

Correct Answer: A

Rationale

Choice A is the best answer because it most effectively illustrates the claim that Wheatley addresses her poem "On Virtue" to the quality of virtue, imploring it to assist her in reaching a future goal. In the quotation, Wheatley begs virtue to accompany her, or "attend [her]," through her youth and to "guide [her] steps to" the future goal of "endless life and bliss."

Choice B is incorrect because this quotation suggests the difficulty of fully comprehending virtue. Rather than asking virtue for help, Wheatley presents it as a quality that is impossible to entirely understand because it is so grand and deep. Choice C is incorrect because this quotation describes Wheatley’s effort to comprehend virtue despite virtue itself declaring that such wisdom is beyond her grasp, or "higher than a fool can reach." Choice D is incorrect because rather than asking virtue for help in this quotation, Wheatley urges herself to "sink not into despair" because virtue is always nearby.

Question Difficulty: Hard

# Question ID 945e7093

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 945e7093

Born in 1891 to a Quechua-speaking family in the Andes Mountains of Peru, Martín Chambi is today considered to be one of the most renowned figures of Latin American photography. In a paper for an art history class, a student claims that Chambi’s photographs have considerable ethnographic value—in his work, Chambi was able to capture diverse elements of Peruvian society, representing his subjects with both dignity and authenticity.

Which finding, if true, would most directly support the student’s claim?

- A. Chambi took many commissioned portraits of wealthy Peruvians, but he also produced hundreds of images carefully documenting the peoples, sites, and customs of Indigenous communities of the Andes.
- B. Chambi’s photographs demonstrate a high level of technical skill, as seen in his strategic use of illumination to create dramatic light and shadow contrasts.
- C. During his lifetime, Chambi was known and celebrated both within and outside his native Peru, as his work was published in places like Argentina, Spain, and Mexico.
- D. Some of the peoples and places Chambi photographed had long been popular subjects for Peruvian photographers.

ID: 945e7093 Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a finding that, if true, would support the claim about Chambi’s photographs. The text describes a student advancing the claim that Chambi’s photographs “have considerable ethnographic value”—meaning that they are valuable as records of cultures—and that they “capture diverse elements of Peruvian society” in a respectful way. If it’s true that Chambi carefully photographed people from a range of different communities in Peru as well as photographed the customs and sites of different communities, that would lend support to the claim that the photographs have ethnographic value as depictions of diverse elements of society in Peru.

Choice B is incorrect because the student’s claim is that Chambi’s photographs have considerable ethnographic value because they depict diverse elements of Peruvian society; the student doesn’t claim anything about the technical skill demonstrated in the photographs. Choice C is incorrect because neither Chambi’s reputation nor the locations where his photographs may have been published would be relevant to the student’s claim that his photographs are valuable as an ethnographic record of Peru’s diverse society. Choice D is incorrect because the popularity among other photographers of the people and places that Chambi photographed would be irrelevant to the student’s claim that Chambi’s photographs are valuable as an ethnographic record of Peru’s diverse society.

Question Difficulty: Hard

# Question ID 5598e59d

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 5598e59d

Matthew D. Rocklage and team examined whether consumer ratings of movies can predict box office success. The team considered both numeric star ratings and written reviews in their research. To analyze the written reviews, the team measured the emotionality—the degree to which a written review expresses an emotional reaction—of user reviews on a movie rating website, assigning each review an emotionality score. After reviewing this research, a student argues that the emotionality of movie reviews is unrelated to a movie’s success at the box office.

- Which finding, if true, would most directly weaken the student’s conclusion?
- A. Movies that had the highest average emotionality scores received the lowest average star ratings on the movie rating website.
  - B. The average emotionality score of a movie’s reviews was a positive predictor of that movie’s box office earnings.
  - C. More than half of the movies that the team examined received an average star rating of 3 out of 5 stars.
  - D. The movies that were most successful at the box office tended to have high average star ratings.

ID: 5598e59d Answer

Correct Answer: B

Rationale

Choice B is the best answer. This choice weakens the student’s conclusion by suggesting that the emotionality of movie reviews is related to box office success: the higher the emotionality score, the better the movie performs at the box office.

Choice A is incorrect. While this choice does mention emotionality scores, it only connects them to star ratings, not to box office success. Choice C is incorrect. The fact that many movies received an average star rating doesn’t tell us anything about the relationship between emotionality and box office success. Choice D is incorrect. While this choice suggests that star ratings can predict box office success, it doesn’t address the issue of emotionality in written reviews, which is the focus of the student’s conclusion.

Question Difficulty: Hard

# Question ID 5fc3a3b6

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 5fc3a3b6

Linguist Deborah Tannen has cautioned against framing contentious issues in terms of two highly competitive perspectives, such as pro versus con. According to Tannen, this debate-driven approach can strip issues of their complexity and, when used in front of an audience, can be less informative than the presentation of multiple perspectives in a noncompetitive format. To test Tannen’s hypothesis, students conducted a study in which they showed participants one of three different versions of local news commentary about the same issue. Each version featured a debate between two commentators with opposing views, a panel of three commentators with various views, or a single commentator.

Which finding from the students’ study, if true, would most strongly support Tannen’s hypothesis?

- A. On average, participants perceived commentators in the debate as more knowledgeable about the issue than commentators in the panel.
- B. On average, participants perceived commentators in the panel as more knowledgeable about the issue than the single commentator.
- C. On average, participants who watched the panel correctly answered more questions about the issue than those who watched the debate or the single commentator did.
- D. On average, participants who watched the single commentator correctly answered more questions about the issue than those who watched the debate did.

ID: 5fc3a3b6 Answer

Correct Answer: C

Rationale

Choice C is the best answer because it presents the finding that, if true, would most strongly support Tannen’s hypothesis. According to the text, Tannen’s hypothesis is that multiple perspectives presented in a noncompetitive format is more informative than a debate between opposing viewpoints is. If participants who saw a panel of three commentators with various views about an issue answered more questions about the issue correctly than did participants who saw a debate, that would support Tannen’s hypothesis since it would show that participants who heard multiple varied perspectives were better informed than were participants who heard a debate between opposing viewpoints.

Choice A is incorrect because finding that participants perceived commentators in the debate as more knowledgeable than commentators in the panel is irrelevant to Tannen’s hypothesis, which is that presenting multiple perspectives on an issue is more informative to the audience than presenting opposing views of the issue is. Participants’ perception of how knowledgeable panelists are has no bearing on how much participants learn from the panelists. Choice B is incorrect because finding that participants perceived commentators in the panel as more knowledgeable than a single commentator is irrelevant to Tannen’s hypothesis, which is that presenting multiple perspectives on an issue is more informative to the audience than presenting opposing views of the issue is. Participants’ perception of how knowledgeable panelists are has no bearing on how much participants learn from the panelists, and Tannen’s hypothesis says nothing about how informative single commentators are.

Choice D is incorrect because finding that participants who watched a single commentator answered more questions correctly than participants who watched the debate did wouldn't be relevant to Tannen's hypothesis, which is that hearing multiple varying perspectives is more informative than hearing a debate. Tannen's hypothesis says nothing about how informative single commentators are.

Question Difficulty: Hard

# Question ID d6ca3f31

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: d6ca3f31

In the 1980s, many musicians and journalists in the English-speaking world began to draw attention to music from around the globe—such as mbaqanga from South Africa and quan họ from Vietnam—that can’t be easily categorized according to British or North American popular music genres, typically referring to such music as “world music.” While some scholars have welcomed this development for bringing diverse musical forms to prominence in countries where they’d previously been overlooked, musicologist Su Zheng claims that the concept of world music homogenizes highly distinct traditions by reducing them all to a single category.

Which finding about mbaqanga and quan họ, if true, would most directly support Zheng’s claim?

- A. Mbaqanga and quan họ developed independently of each other and have little in common musically.
- B. Mbaqanga is significantly more popular in the English-speaking world than quan họ is.
- C. Mbaqanga and quan họ are now performed by a diverse array of musicians with no direct connections to South Africa or Vietnam.
- D. Mbaqanga and quan họ are highly distinct from British and North American popular music genres but similar to each other.

ID: d6ca3f31 Answer

Correct Answer: A

Rationale

Choice A is the best answer. Zheng’s claim is that the idea of world music “homogenizes” (meaning makes similar) distinct kinds of music by reducing them to one category. In other words, Zheng thinks the concept of world music is a harmful oversimplification of diverse musical forms. To support this claim, we need evidence that these musical traditions are so different from one another that they should not fall into the same category. If it’s true that mbaqanga and quan họ developed separately and have little in common musically, then it wouldn’t make sense to lump them into the same category.

Choice B is incorrect. If true, this wouldn’t affect the claim. To support the claim, we need evidence that these musical traditions are so different from one another that they should not fall into the same category. A difference in popularity doesn’t necessarily mean that the two musical traditions shouldn’t be categorized together: instead, we need to know if the music itself is similar or different. Choice C is incorrect. If true, this wouldn’t affect the claim. To support the claim, we need evidence that these musical traditions are so different from each other that they should not fall into the same category. This choice doesn’t do that. Choice D is incorrect. If true, this would actually weaken the claim. Zheng thinks it’s reductive or oversimplifying to put distinct musical traditions into a single category. But if mbaqanga and quan họ are similar to each other, then it would make sense to put them in the same category.

Question Difficulty: Hard

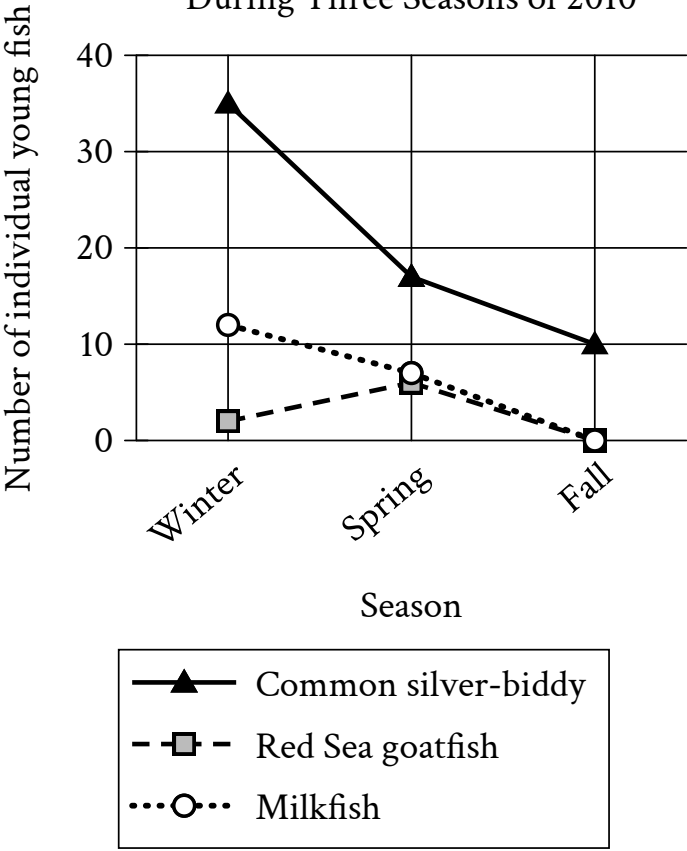


Question ID 91717abe

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 91717abe

Number of Young Fish Collected at Mangrove Sites in the Egyptian Red Sea During Three Seasons of 2010



Mangroves are trees or bushes that grow on the coastlines of seas and rivers. Areas with mangroves are great places for young fish since they help keep these fish fed and protected while they grow. To study the importance of mangroves to young fish, researchers Mohamed A.Abu El-Regal and Nesreen K. Ibrahim collected and identified young fish from three different mangrove sites in the Egyptian Red Sea. They collected fish in the winter, spring, and autumn of 2010, collecting a total of 269 fish from 21 different species. For some species, more fish were collected in the winter than the other two seasons, for instance: \_\_\_\_\_

Which choice most effectively uses the data in the graph to complete the example?

- A. more common silver-biddy and milkfish were collected in the winter than in either of the other two seasons.
- B. the common silver-biddy was collected more frequently than the other two species in all three seasons.
- C. in the spring, researchers collected more Red Sea goldfish than they collected from the other two species.
- D. in the fall, researchers collected 10 common silver-biddy but collected no milkfish or Red Sea goatfish.

Correct Answer: A

Rationale

Choice A is the best answer. The claim is about which fish were collected more in winter than in other seasons. By comparing the number of common silver-biddy and milkfish collected in each season, we can see that more of these fish were collected in winter than in any other season.

Choice B is incorrect. The claim is about which fish were collected more in winter than in other seasons. This statement compares collections across the three species of fish, rather than comparing collections of individual types of fish across seasons. Choice C is incorrect. The claim is about which fish were collected more in winter than in other seasons. This statement is about spring, rather than winter. Choice D is incorrect. The claim is about which fish were collected more in winter than in other seasons. This statement is about fall, rather than winter, fish collections.

Question Difficulty: Hard

# Question ID 65e04a48

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: 65e04a48

The variety of species with adaptations to produce toxins is matched by the variety of uses of those toxins: northern stargazers, for example, use toxins for defense, whereas tiger snakes use toxins for predation and skeleton shrimp use toxins for intraspecific competition. In fact, a species may have adaptations enabling it to produce a toxin with multiple uses. Finding that the venom used by the Panamanian scorpion *Centruroides granosus* to subdue prey also inhibits growth of the pathogenic bacteria *Escherichia coli*, Dumas Gálvez and colleagues conclude that the particular form of venom production observed in *C. granosus* may have propagated through the species because it mitigates risk during feeding in addition to enhancing predation success.

Which finding, if true, would most directly support Gálvez and colleagues’ conclusion?

- A. *E. coli* does not appear to be virulent for *C. granosus* even when transmitted from prey captured without the use of venom.
- B. *E. coli* is frequently found in species preyed on by *C. granosus* and can survive exposure to the digestive juices of *C. granosus*.
- C. *C. granosus* appears to be chemically sensitive to prey infected with *E. coli* and tends to favor uninfected individuals.
- D. Exposure to *C. granosus* venom also inhibits the growth of nonpathogenic bacteria species common in the native environment of *C. granosus*.

ID: 65e04a48 Answer

Correct Answer: B

Rationale

Choice B is the best answer because it presents a finding that, if true, would most directly support Dumas Gálvez and colleagues’ conclusion that the venom produced by the scorpion species *Centruroides granosus* helps mitigate, or reduce, risk during feeding in addition to enhancing predation success. According to the text, Gálvez and colleagues found that the venom used by *C. granosus* both subdues prey and inhibits the growth of *Escherichia coli*, a pathogen that, if ingested by *C. granosus*, would presumably cause disease unless neutralized in some way. If it were true that *E. coli* is commonly found in species preyed on by *C. granosus* and, moreover, can withstand *C. granosus*’s digestive juices after ingestion, this would suggest that *C. granosus* likely relies on another mechanism to neutralize *E. coli* to make *E. coli*-infected prey safe for consumption by the scorpion species. Given that, as the text states, *C. granosus*’s venom was found to inhibit the pathogen’s growth, it therefore follows that the venom provides protection for *C. granosus* against *E. coli* that its digestive system wouldn’t otherwise provide, making it reasonable to conclude that the trait may have spread through the species because it mitigates risk during feeding.

Choice A is incorrect because a finding that *E. coli* doesn’t appear to be virulent, or dangerous, for *C. granosus* even when venom isn’t used would weaken rather than strengthen Gálvez and colleagues’ conclusion that a particular form of venom production spread in *C. granosus* in part because it helps reduce risk during feeding, since this finding would suggest that *E. coli* isn’t actually a risk to *C. granosus* when consuming prey. Choice C is incorrect because a finding that *C. granosus* can detect and avoid consuming *E. coli*-infected prey in the first place would suggest that an ability other than venom production is the primary factor that reduces *C. granosus*’s risk when feeding, which would suggest there has been less evolutionary pressure to develop venom that provides protection; thus, this finding wouldn’t clearly support the conclusion that *C. granosus*’s form of venom production

spread in the species in part because it helps reduce risk during feeding. Choice D is incorrect because Gálvez and colleagues' conclusion focuses on *C. granosus* venom in relation to the risk of *E. coli*, and a finding that the venom also inhibits nonpathogenic (not disease-causing) bacteria species, which presumably don't pose a risk if consumed, wouldn't be relevant to the conclusion that *C. granosus*'s particular form of venom production spread in the species in part because it helps reduce risk during feeding.

Question Difficulty: Hard

# Question ID a1d9b5ac

| Assessment           | Test                | Domain                | Skill               | Difficulty                                   |
|----------------------|---------------------|-----------------------|---------------------|----------------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div><div></div><div></div><div></div></div> |

ID: a1d9b5ac

Accomplished printmaker and sculptor Elizabeth Catlett (1915–2012) used her art to explore the Black experience in the United States. In a paper for an art history class, a student claims that Catlett had a particular talent for unifying various artistic traditions and styles in her work.

Which quotation from a scholar describing Catlett’s work would best support the student’s claim?

- A. “In *Mother and Child*, a sculpture of two Black figures, Catlett used an ancient Indigenous sculpting technique and combined the visual aesthetic of modern Mexican muralists with that of German artist Kathe Kollwitz.”
- B. “In her collage *New Generation*, Catlett overlaid fabric onto the canvas to represent the clothing of a father and his toddler, positioned to evoke classic images of a mother and child.”
- C. “Created in 1968, Catlett’s sculpture *Black Unity*, a stylized fist sculpted from mahogany and measuring two feet across, remains an important piece and has received renewed and well-deserved attention in recent years.”
- D. “One series of Catlett’s prints, made by the artist using the linoleum cut method, depicts several notable African American women, including Harriet Tubman and Sojourner Truth.”

ID: a1d9b5ac Answer

Correct Answer: A

Rationale

Choice A is the best answer because it presents a quotation about Elizabeth Catlett that supports the student’s claim that this artist had a talent for unifying various traditions and styles in her work. The quotation explains that to create the work, Catlett combined Indigenous sculpture with the visual aesthetic of modern muralists from Mexico as well as that of German artist Kathe Kollwitz. In other words, Catlett was able to unify several artistic traditions and styles within a single sculpture.

Choice B is incorrect because in discussing the technique and subject matter of Catlett’s collage, the quotation makes no reference to particular traditions or styles. Choice C is incorrect because in describing the sculpture, the quotation doesn’t mention any artistic traditions or styles that Catlett may have synthesized to create the work. Choice D is incorrect because in discussing Catlett’s prints of notable African American women, the quotation doesn’t characterize those prints as having fused different traditions or styles.

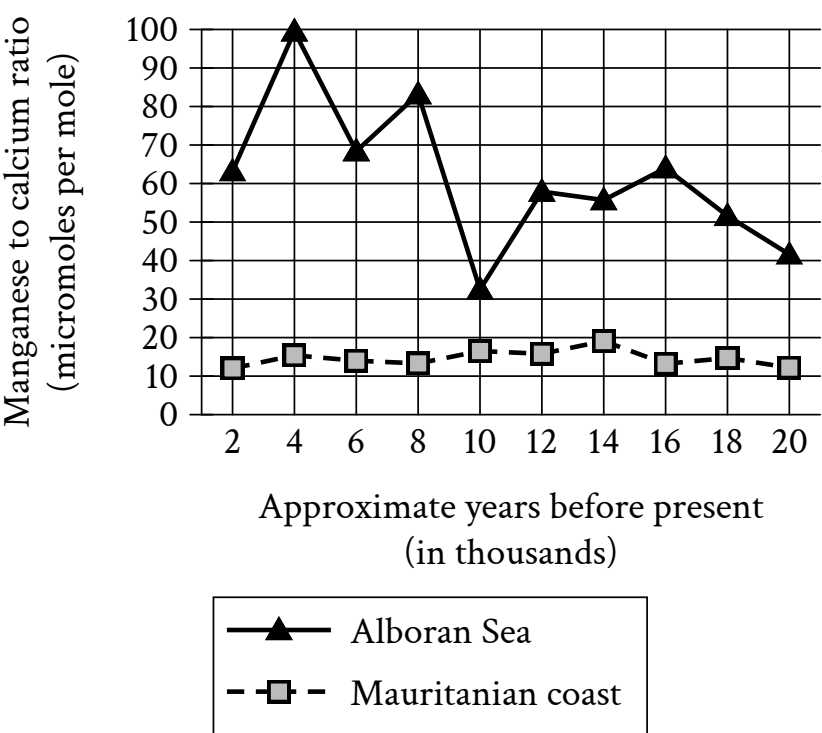
Question Difficulty: Hard

Question ID bb8f130e

| Assessment           | Test                | Domain                | Skill               | Difficulty                          |
|----------------------|---------------------|-----------------------|---------------------|-------------------------------------|
| PSAT/NMSQT & PSAT 10 | Reading and Writing | Information and Ideas | Command of Evidence | <div></div> <div></div> <div></div> |

ID: bb8f130e

Ratio of Manganese to Calcium in Samples from Alboran Sea and Mauritanian Coast



The population of the coral *Lophelia pertusa* declined significantly around 9,000 years ago in the Alboran Sea and around 11,000 years ago near the Mauritanian coast. Using the ratio of manganese to calcium, which inversely correlates with ocean oxygenation levels, marine scientist Rodrigo da Costa Portilho-Ramos and colleagues evaluated whether oxygenation played a role in the declines of *L. pertusa*. The researchers concluded that oxygenation may have been important in the Alboran Sea but not near the Mauritanian coast, since \_\_\_\_\_

Which choice most effectively uses data from the graph to complete the statement?

- A. a substantial increase in oxygenation in the Alboran Sea corresponded with the local decline in *L. pertusa*, but the opposite relationship between oxygenation and *L. pertusa* was found near the Mauritanian coast.
- B. *L. pertusa* declined in the Alboran Sea during a period of substantial local decline in oxygenation, but *L. pertusa* declined near the Mauritanian coast during a period of little local change in oxygenation.
- C. oxygenation in the Alboran Sea was higher before the decline in *L. pertusa* than after the decline, whereas oxygenation near the Mauritanian coast was relatively low both before and after the decline in *L. pertusa*.

D. oxygenation in the Alboran Sea tended to be substantially higher than oxygenation near the Mauritanian coast during the period studied.

ID: bb8f130e Answer

Correct Answer: B

Rationale

Choice B is the best answer because it effectively uses data from the graph to complete the statement about Rodrigo da Costa Portilho-Ramos and colleagues' conclusion. The graph shows the ratio of manganese to calcium in *L. pertusa* coral samples from the Alboran Sea and the Mauritanian coast. The graph reflects time in approximate years before present: in other words, the greater the number in years noted on the graph's horizontal axis, the farther that moment is in the past. The text indicates that the researchers tested the samples to determine whether oxygenation played a role in the decline of *L. pertusa*. The text goes on to note that a change in the ratio of manganese to calcium would signal an inverse, or opposite, change in oxygenation. According to the graph, the ratio of manganese to calcium in samples from the Alboran Sea increased from about 30 micromoles per mole 10,000 years ago to about 80 micromoles per mole 8,000 years ago, which means that oxygenation decreased between 10,000 and 8,000 years ago. Meanwhile, there was almost no discernible change in the ratio of manganese to calcium in samples from the Mauritanian coast between 12,000 and 10,000 years ago. According to the text, the population of *L. pertusa* declined significantly around 9,000 years ago in the Alboran Sea and around 11,000 years ago near the Mauritanian coast. Thus, the increase in the ratio of manganese to calcium around 9,000 years ago in the Alboran Sea coincides with the decline in the *L. pertusa* population, suggesting an association between the decrease in oxygenation and the decline in population of the coral. No such relationship is suggested around 11,000 years ago near the Mauritanian coast. So, oxygenation likely played a role in the *L. pertusa* decline in the Alboran Sea but not in the coral's decline near the Mauritanian coast.

Choice A is incorrect because it asserts the opposite of what the graph indicates regarding oxygenation in the Alboran Sea, and it misrepresents what the graph indicates about oxygenation near the Mauritanian coast. The graph indicates that at the time of the decline in *L. pertusa* (approximately 9,000 years ago), the samples from the Alboran Sea contained a ratio of manganese to calcium that was increasing. According to the text, this ratio inversely correlates with ocean oxygenation levels, so if the ratio was increasing, oxygenation was decreasing, not substantially increasing. Furthermore, the graph shows that the ratio of manganese to calcium remained relatively stable in coral samples from the Mauritanian coast during the period studied, which suggests that there was no discernible relationship between oxygenation and the coral's population decline in that location, not that there was a substantial decrease in oxygenation corresponding to the coral's decline. Choice C is incorrect. Although the graph suggests that the level of oxygenation in the Alboran Sea was higher before the decline in *L. pertusa* than after—because the ratio of manganese to calcium inversely correlates with ocean oxygenation levels and this ratio was lower before the decline than after—the graph doesn't support the claim that oxygenation near the Mauritanian coast was consistently low before and after the coral's decline there. Rather, the graph indicates that relative to coral samples from the Alboran Sea, the ratio of manganese to calcium in samples from near the Mauritanian coast was consistently low, which suggests that oxygenation levels were relatively high both before and after the decline of *L. pertusa*. Choice D is incorrect because it states the opposite of what the graph indicates: the graph shows that throughout the period studied, the ratio of manganese to calcium was higher in coral samples from the Alboran Sea than it was in samples from near the Mauritanian coast. Since the text indicates that the ratio of manganese to calcium inversely correlates with ocean oxygenation levels, oxygenation in the Alboran Sea was therefore lower than, not higher than, oxygenation near the Mauritanian coast during the period studied. Moreover, even if choice D did accurately represent the graph, it wouldn't effectively complete the statement since a comparison of the ocean oxygenation levels at the two locations is not relevant to the claim that a decline in oxygenation levels was associated with the decline of *L. pertusa* in the Alboran Sea but not near the Mauritanian coast.

Question Difficulty: Hard