

# 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.

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, \_\_\_\_\_

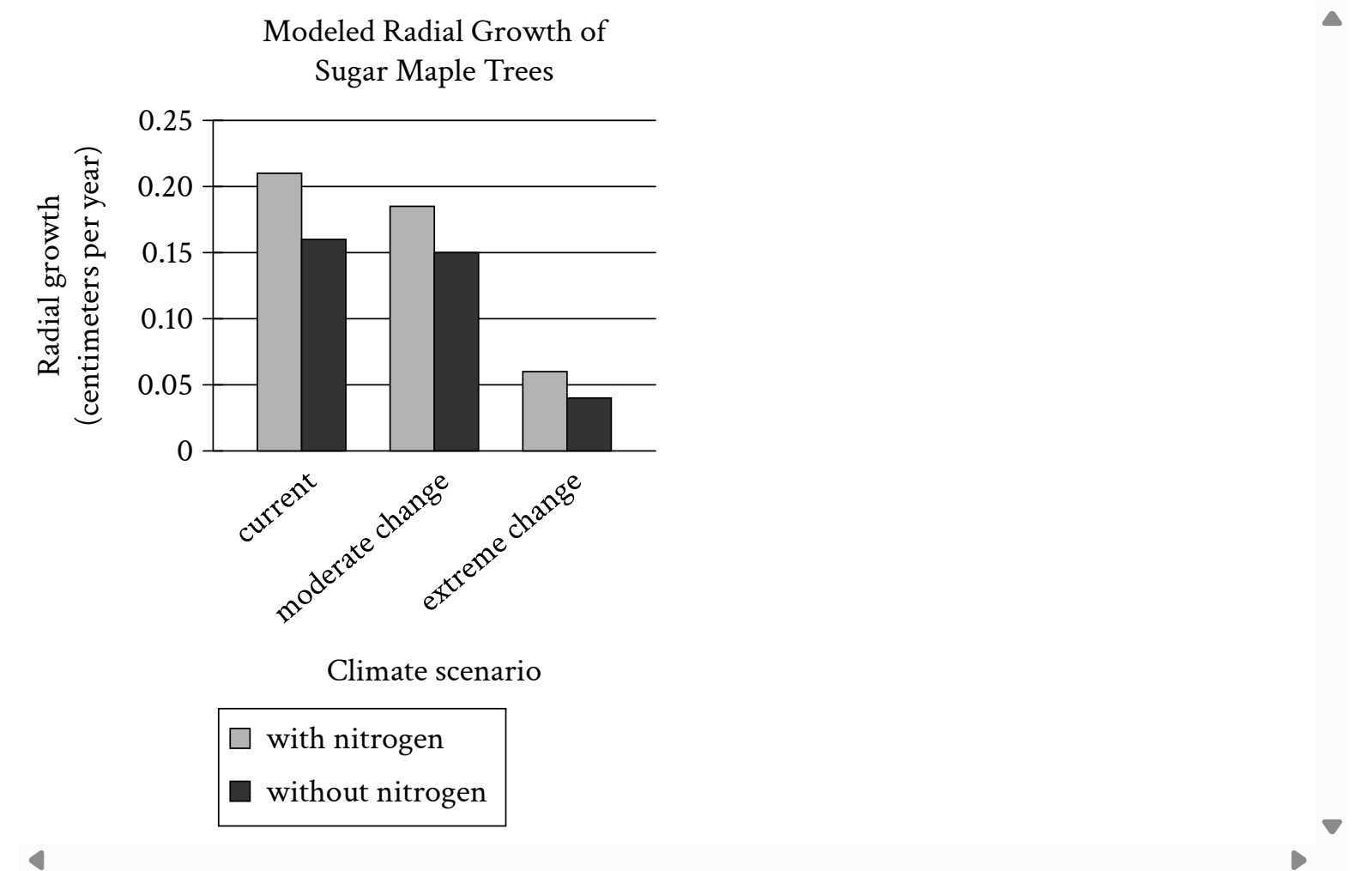
Which choice most effectively uses data from the table to complete the example?

- 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.

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.

# 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.”

# 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?

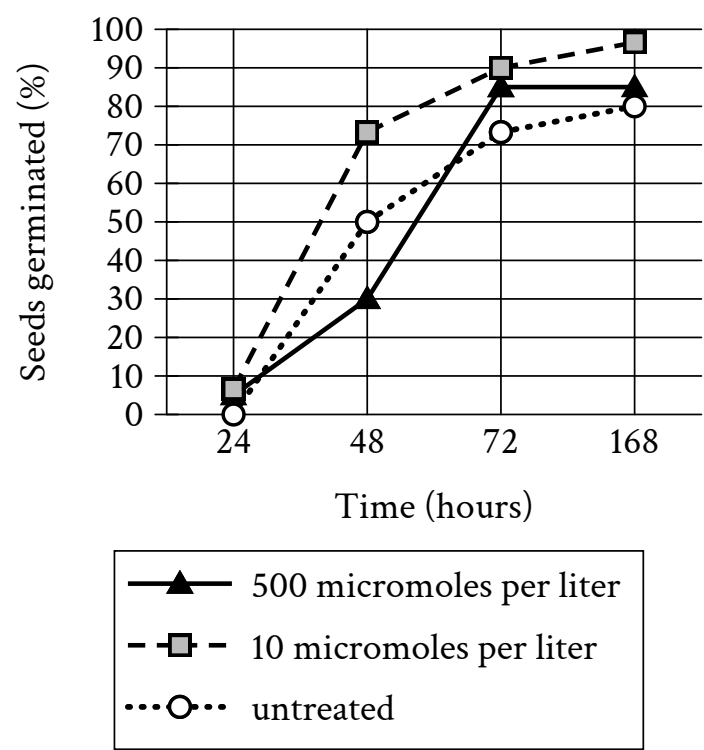
- A. Water molecules are found to be impervious to TMAO even when the water molecules’ tetrahedral configuration has been distorted by high pressure.
- B. Examination of TMAO’s molecular structure shows that TMAO molecules retain their shape even as pressure increases.
- C. A positive correlation is 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.

Question ID 62bd05a8

| 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: 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.



# 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.

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.

# 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.

# Question ID 588a4c0d

| 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></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.

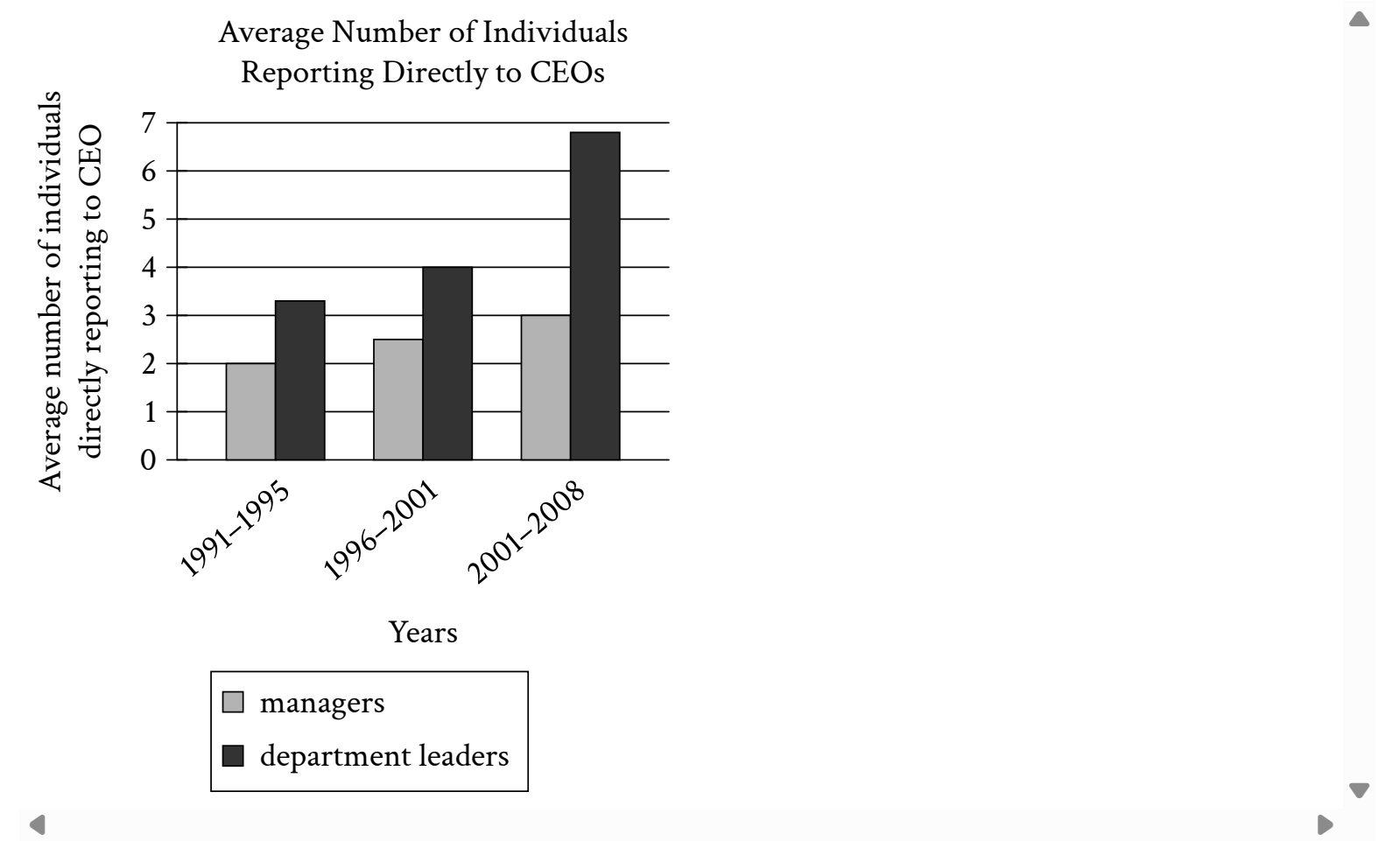
Which finding, if true, would most directly support the researchers’ conclusion?

- 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.

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.

Question ID bc3b92b4

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| 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.

# 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.

# 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."

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.

Question ID 47564f39

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| 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.

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.

# 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."

# 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."

# 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.

# 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.

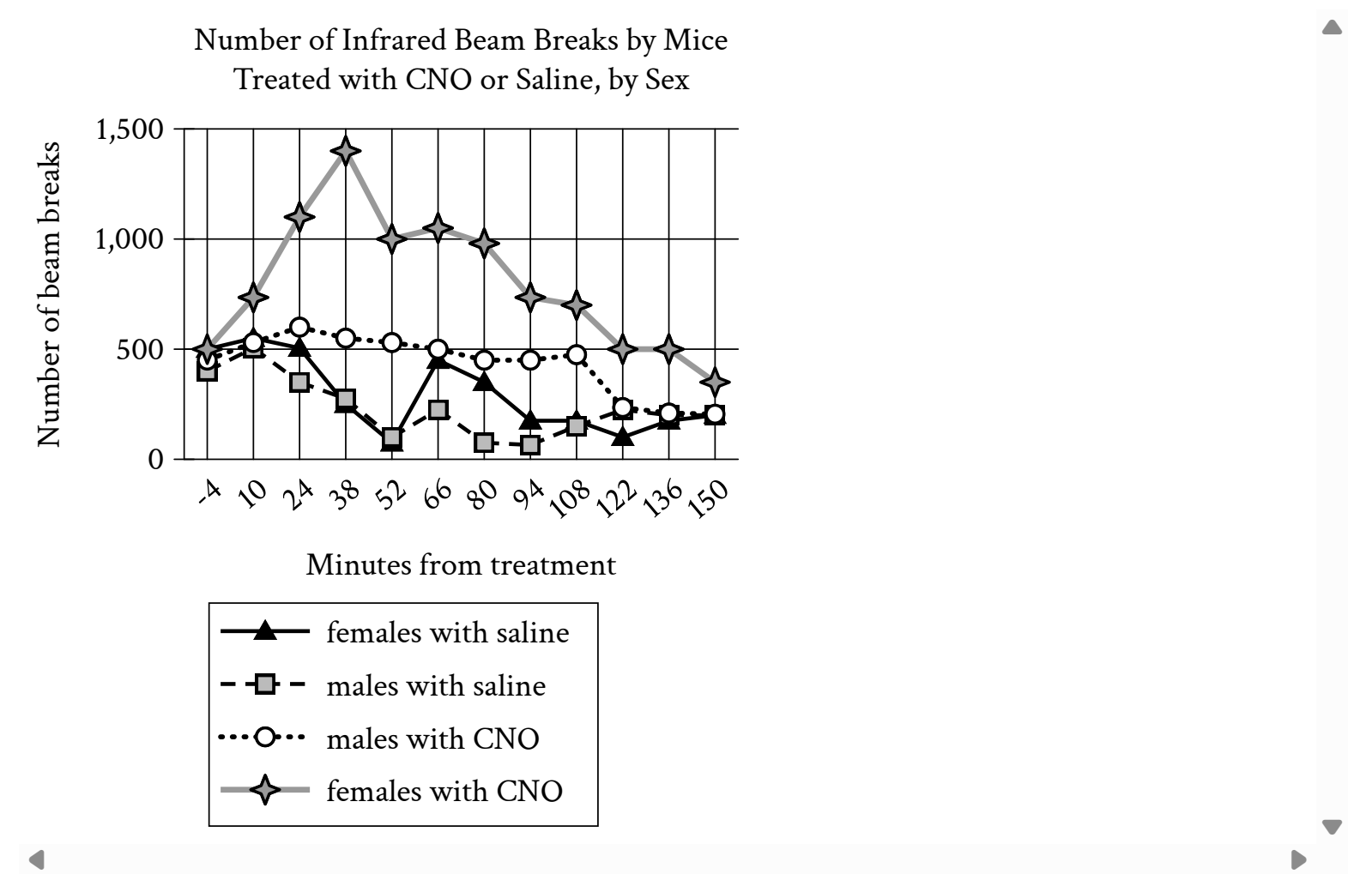
Which finding about the streams in the study, if true, would most directly support Litty and Schlunegger’s conclusion?

- 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.

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></div></div> |

ID: a8a74b0b



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?

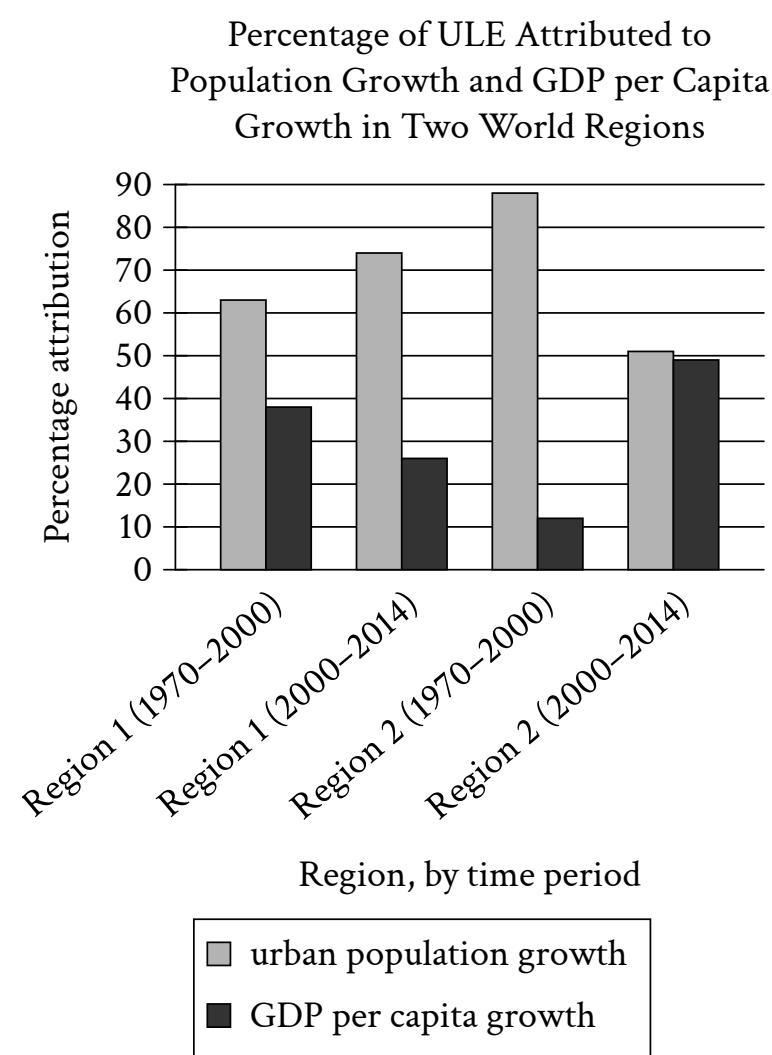
- A. the four groups of mice differed greatly in their activity levels before treatment but showed identical activity levels at the end of the monitoring period.
- B. saline-treated females showed substantially more activity at certain points in the monitoring period than saline-treated males did.
-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

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> |

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.

# 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.

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 \_\_\_\_\_

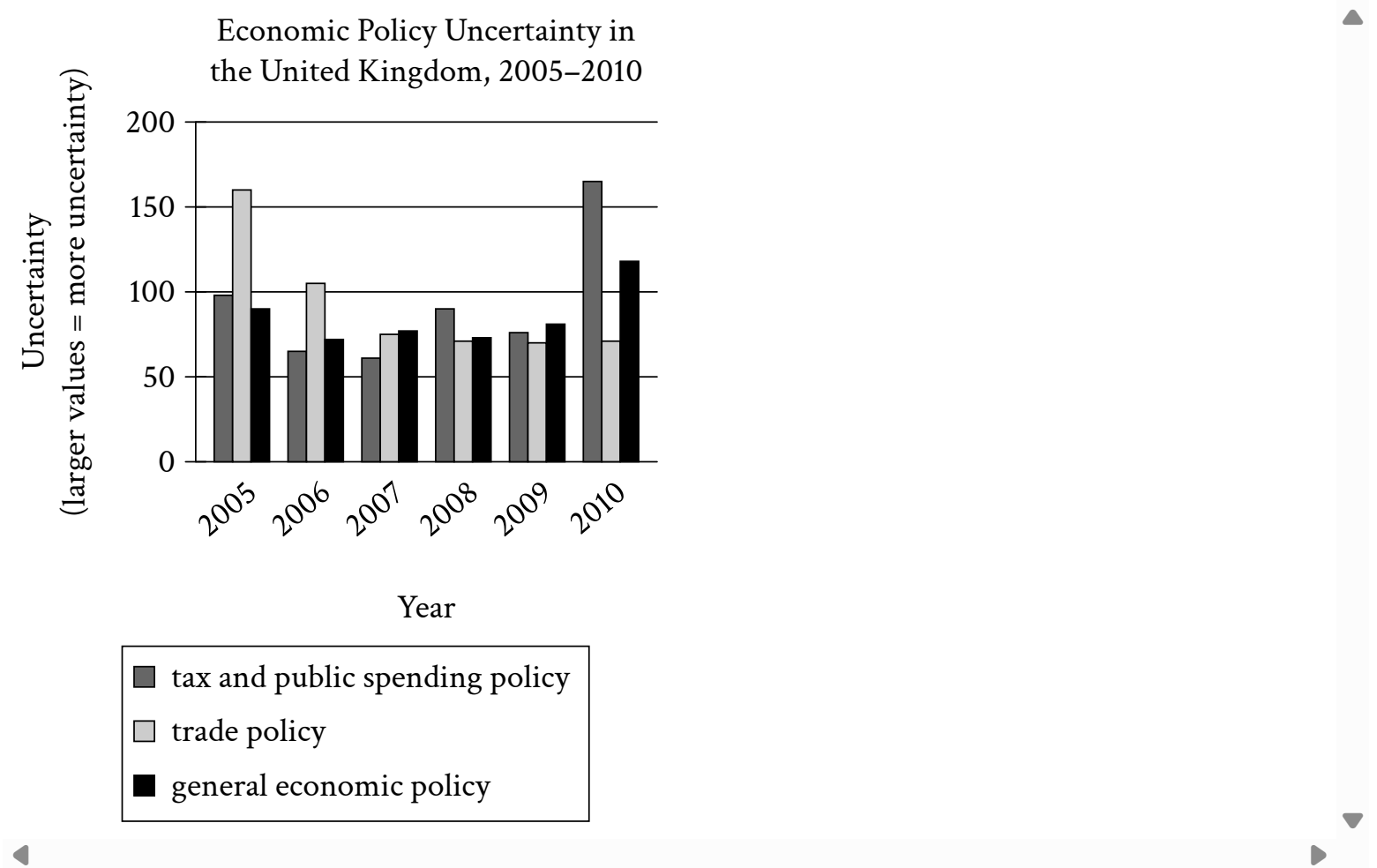
Which choice most effectively uses data from the table to complete the text?

- 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.

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.

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 educational 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.”

# 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.”

# 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?

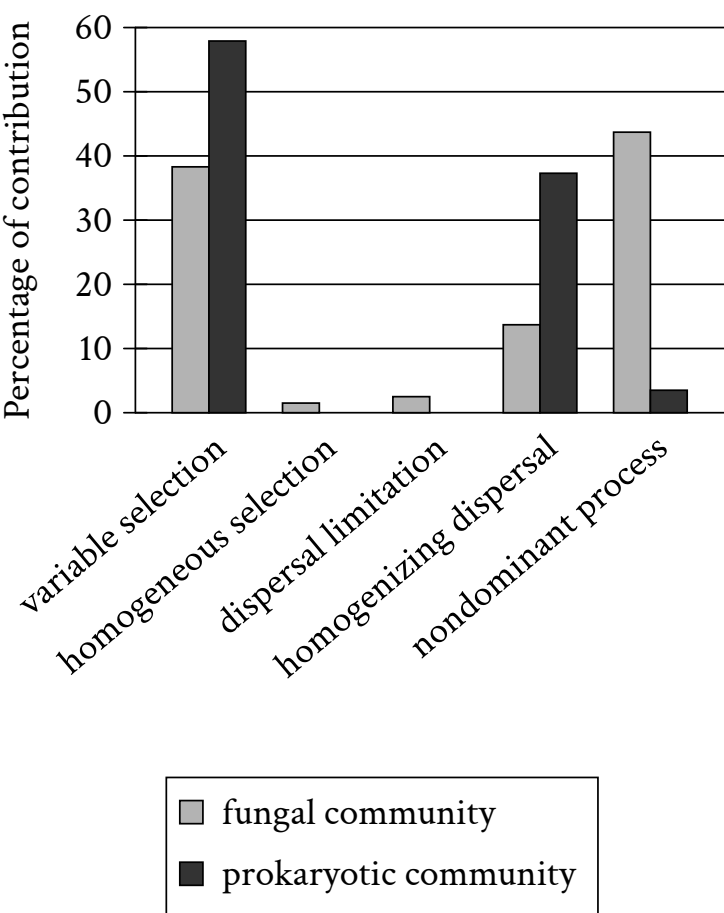
- A. The average body size of PCFG whales observed along the coasts of Northern California and British Columbia has remained relatively steady in recent decades, while the average body size of ENP whales in the main group has slightly decreased.
- B. When present along the coasts of Northern California 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.

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.

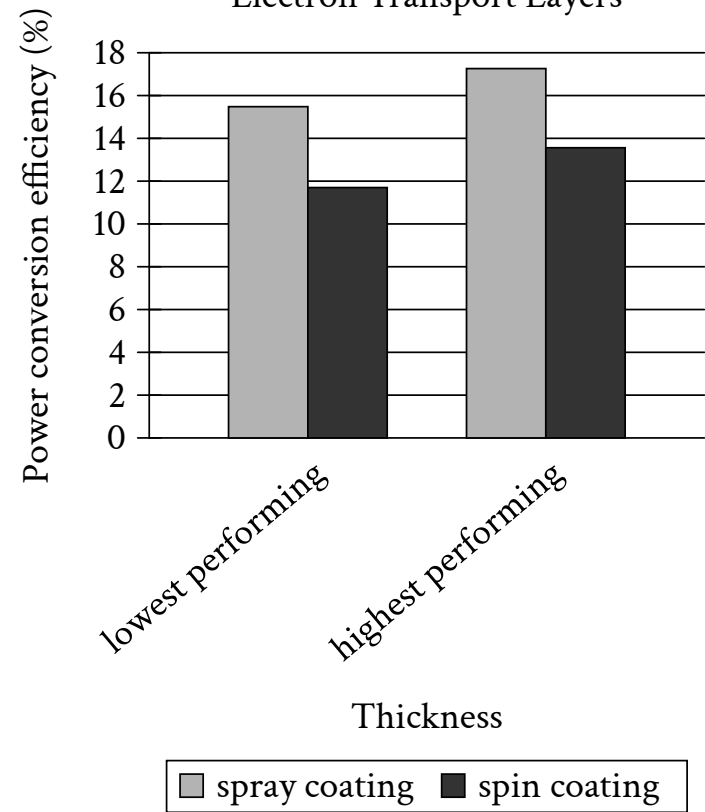
D. the contribution of homogeneous selection to community assembly was negligible for both fungi and prokaryotes.

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

Power Conversion Efficiency of  
Lowest and Highest Performing  
Spin-coated and Spray-coated  
Electron Transport Layers



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.

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?

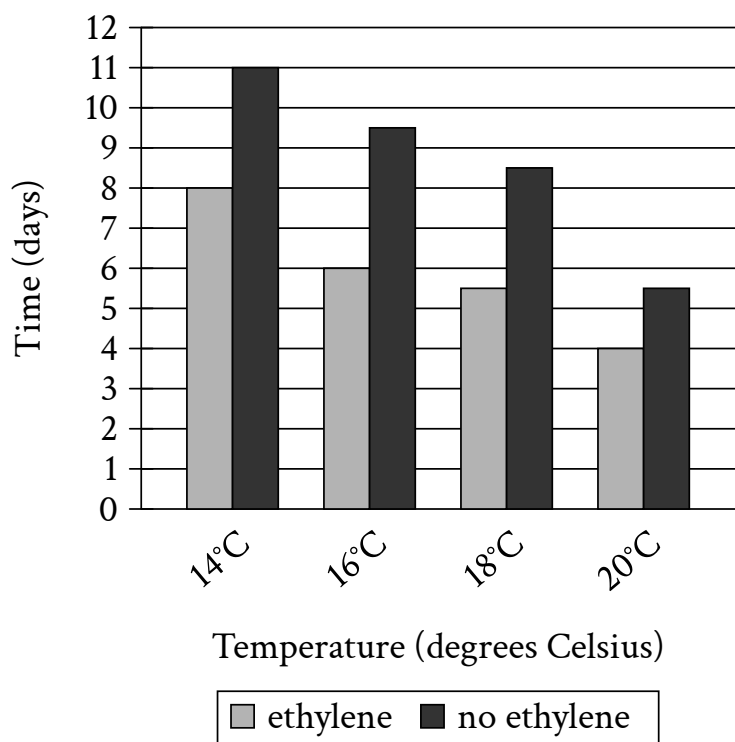
- A. One of the earliest appearances of mimesis’s root word, *mimos*, can be found in an ancient Greek tragedy in reference to dramatic impersonation, and the *mim*- root came to be generally associated with the musical and poetic arts by the fifth century BCE.
- B. Both Plato’s and Aristotle’s theorizations 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.

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.

# 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.”

# 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.”

# 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.”

# 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.

# 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.

# 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.

# 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.

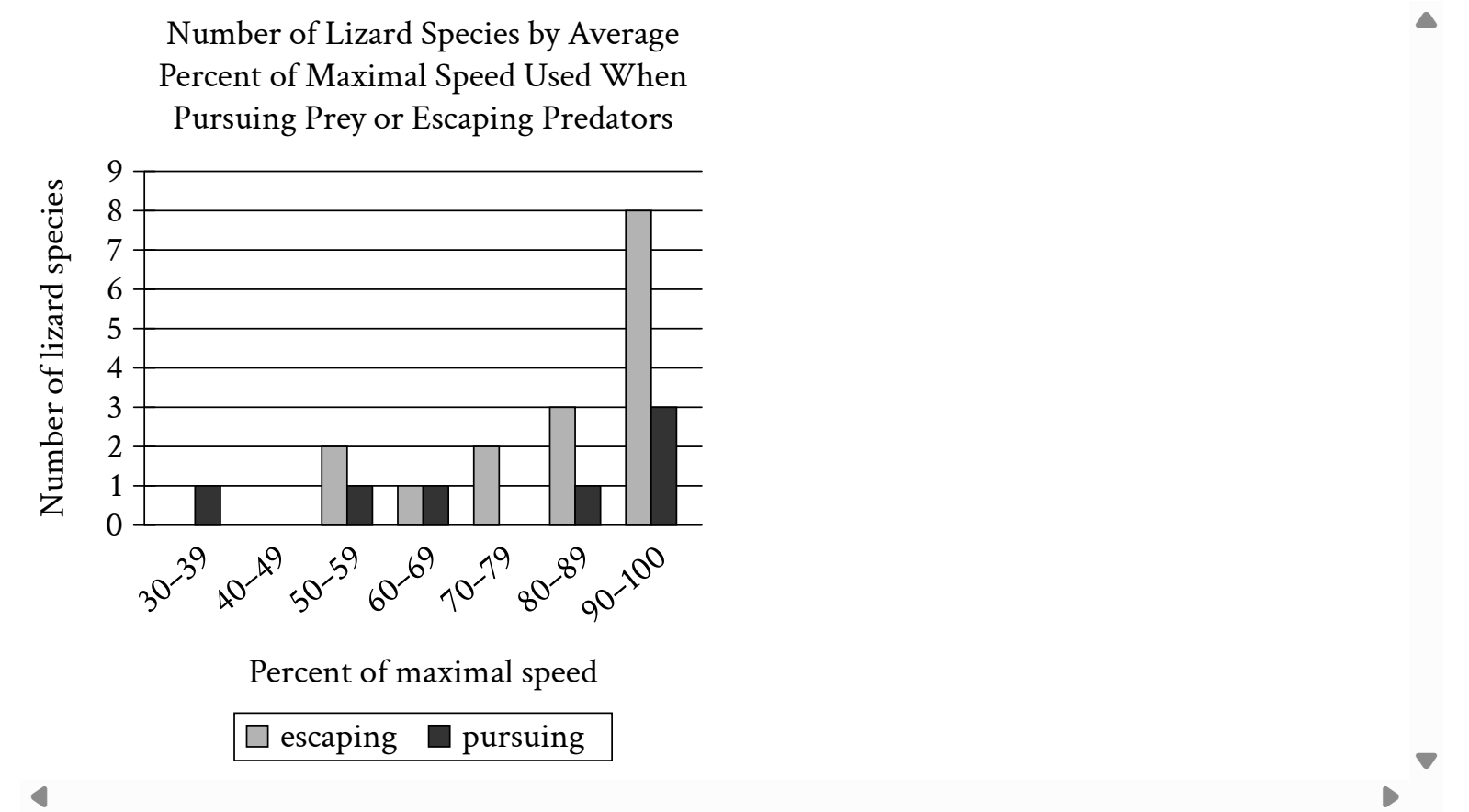
Which quotation from a work by a historian would most directly support the student’s claim?

- 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.”

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.

# 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.

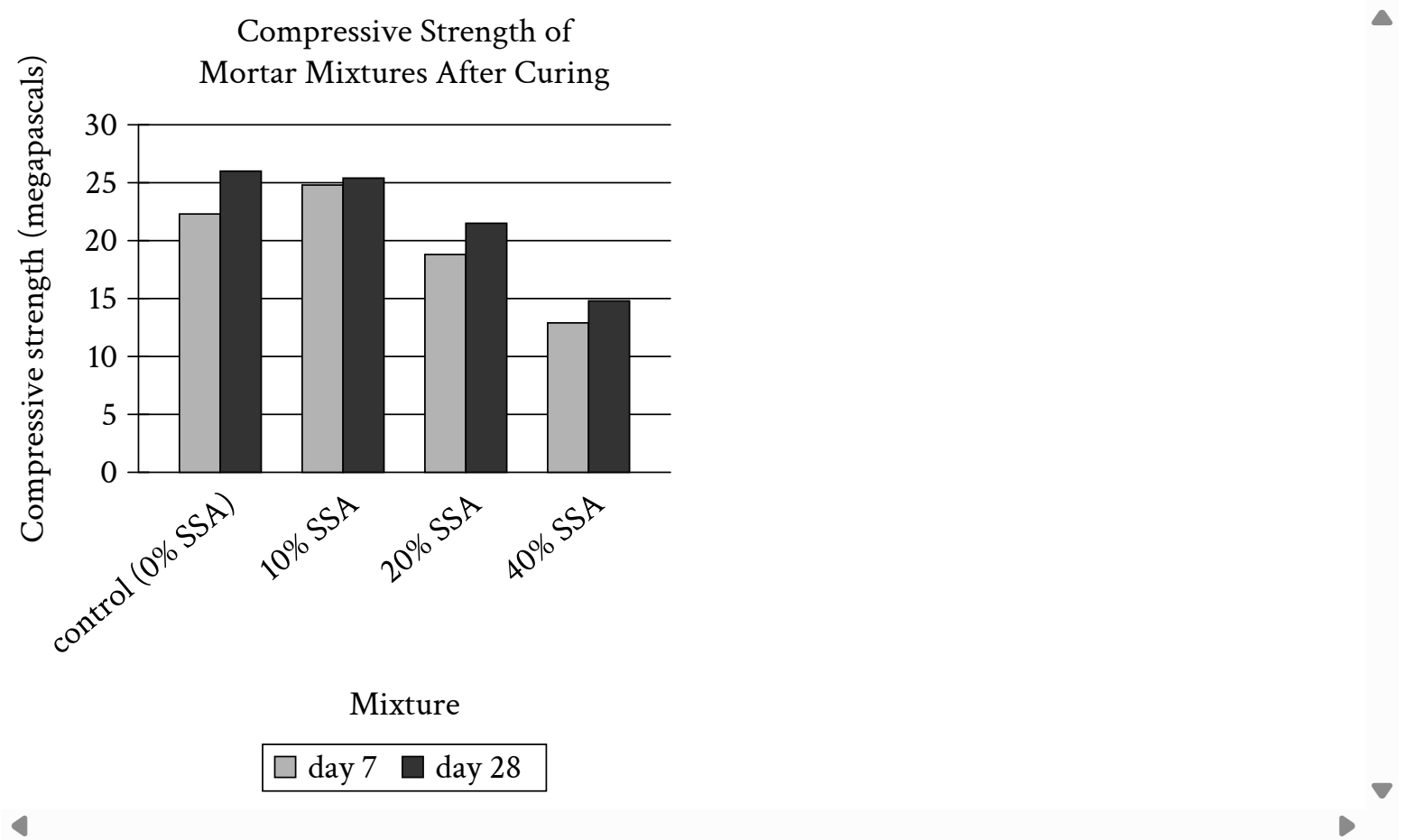
Which finding, if true, would most directly support the student’s hypothesis?

- 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.

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.

# 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.

# 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.

Question ID de4dd845

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

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.

# 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.

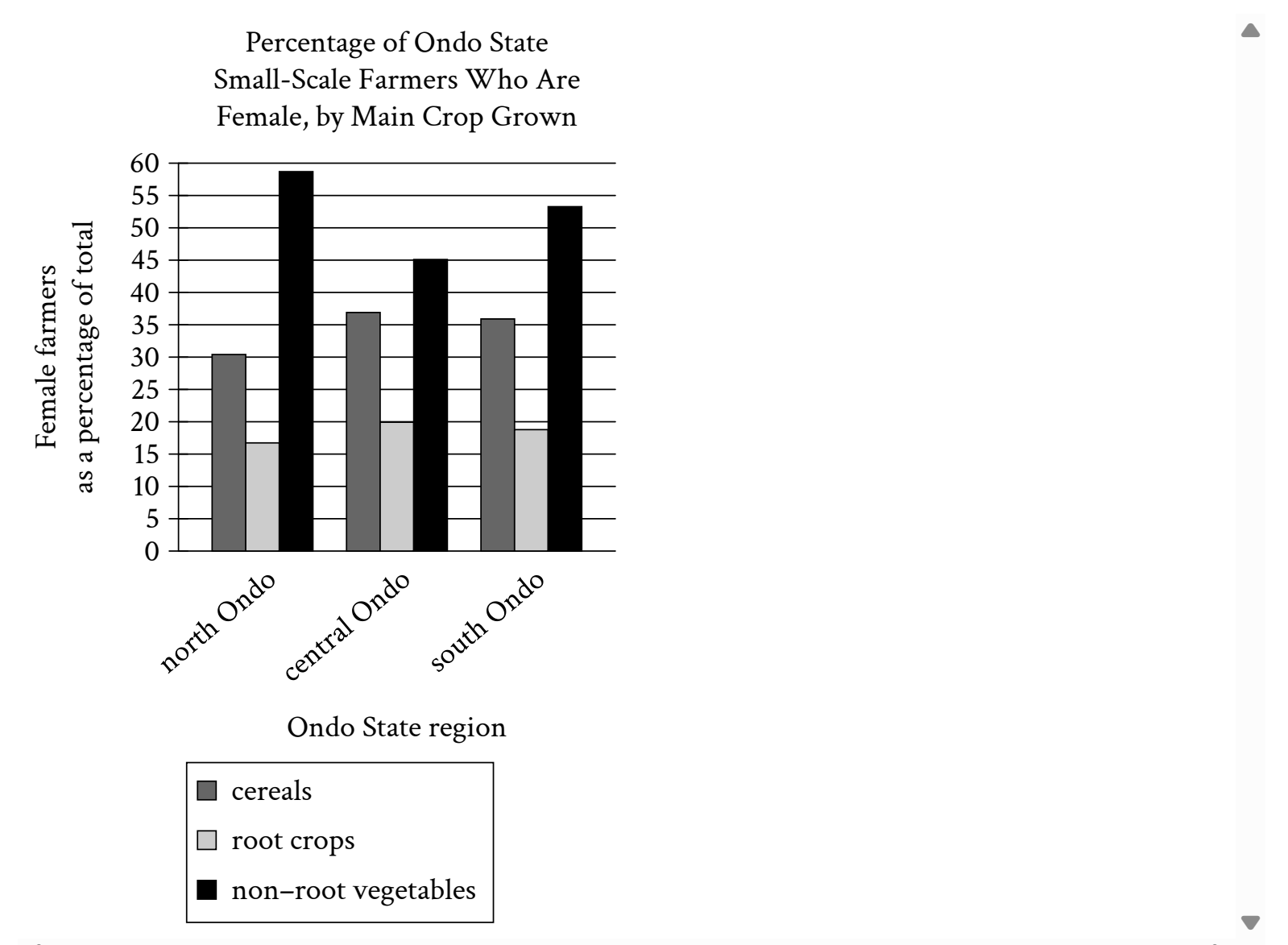
Which finding, if true, would most directly support Suarez, Pérez-Huerta, and Harrell’s claim?

- 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.

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.

# 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.

# 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.

# 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.”

# 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.

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.

# 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.”

# 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?

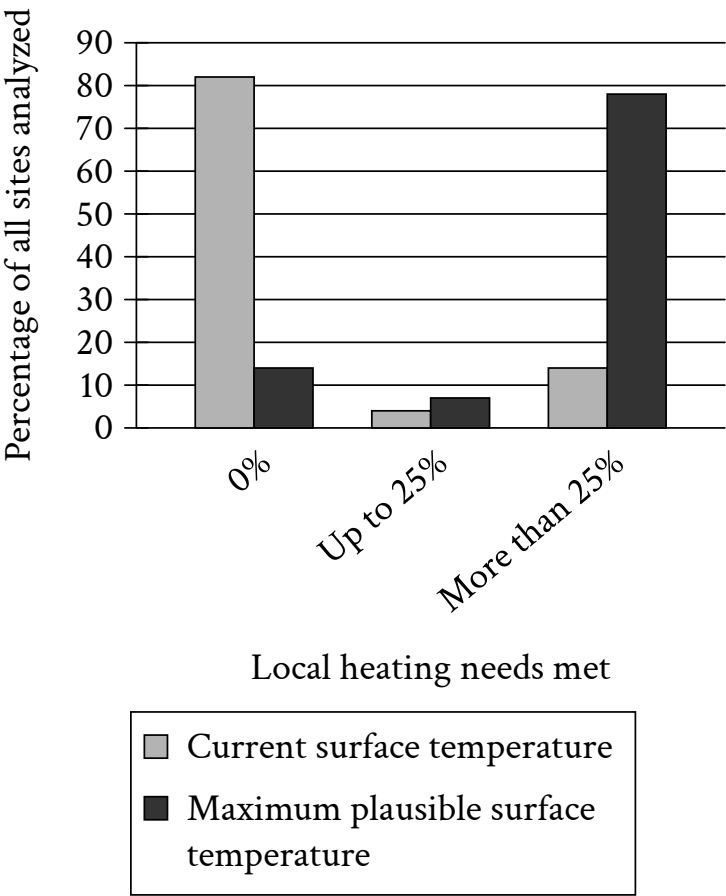
- A. “He carried himself always as if he were passing under his own triumphal arch.”
- B. “The grey Prince Albert was scrupulously buttoned about his form, and a shiny top hat replaced the felt of the afternoon.”
- C. “It was a beautiful day in balmy May and the sun shone pleasantly on Mr. Cornelius 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.”

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%.

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.

# 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.

# 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."

# 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.

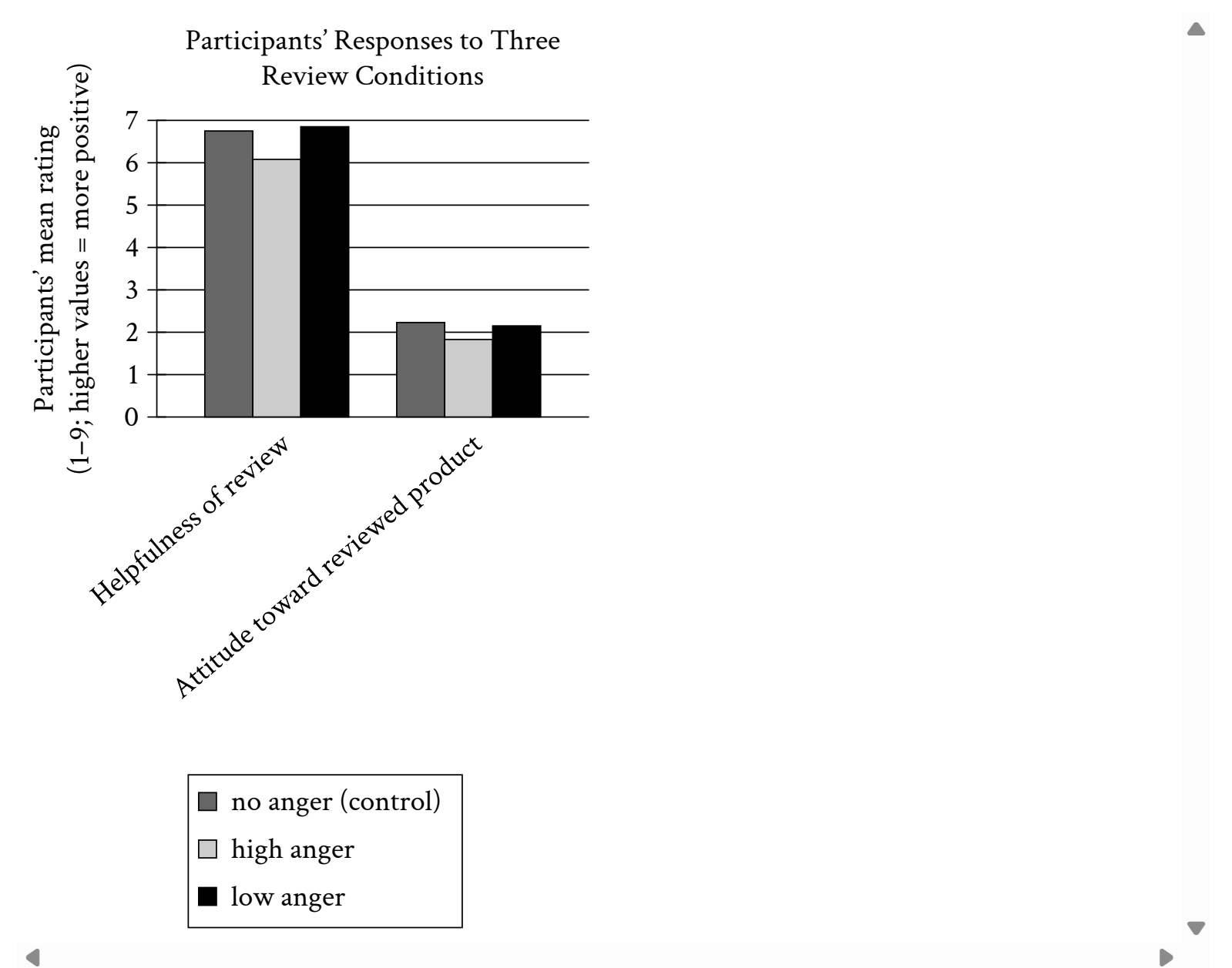
Which finding, if true, would most directly support Paredes’s argument?

- 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.

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> |

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.

# 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.

# 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?

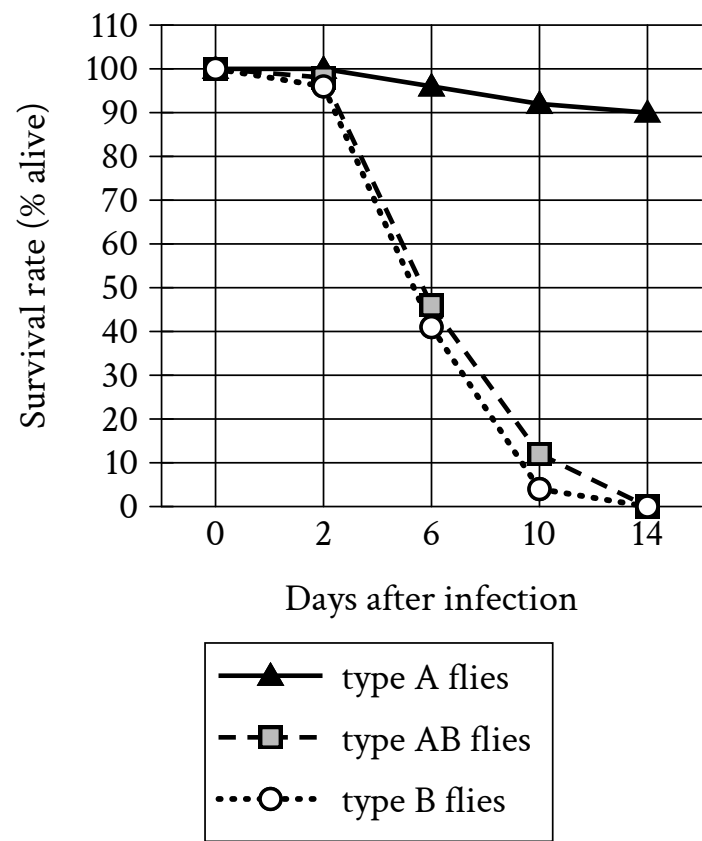
- A. "Although the BBC had begun as a private corporation, politicians successfully argued to make it a public company because they believed a public broadcaster could help build national unity in the aftermath of World War I."
- B. "For many decades, the BBC had no competition since it held Britain's 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."



| 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



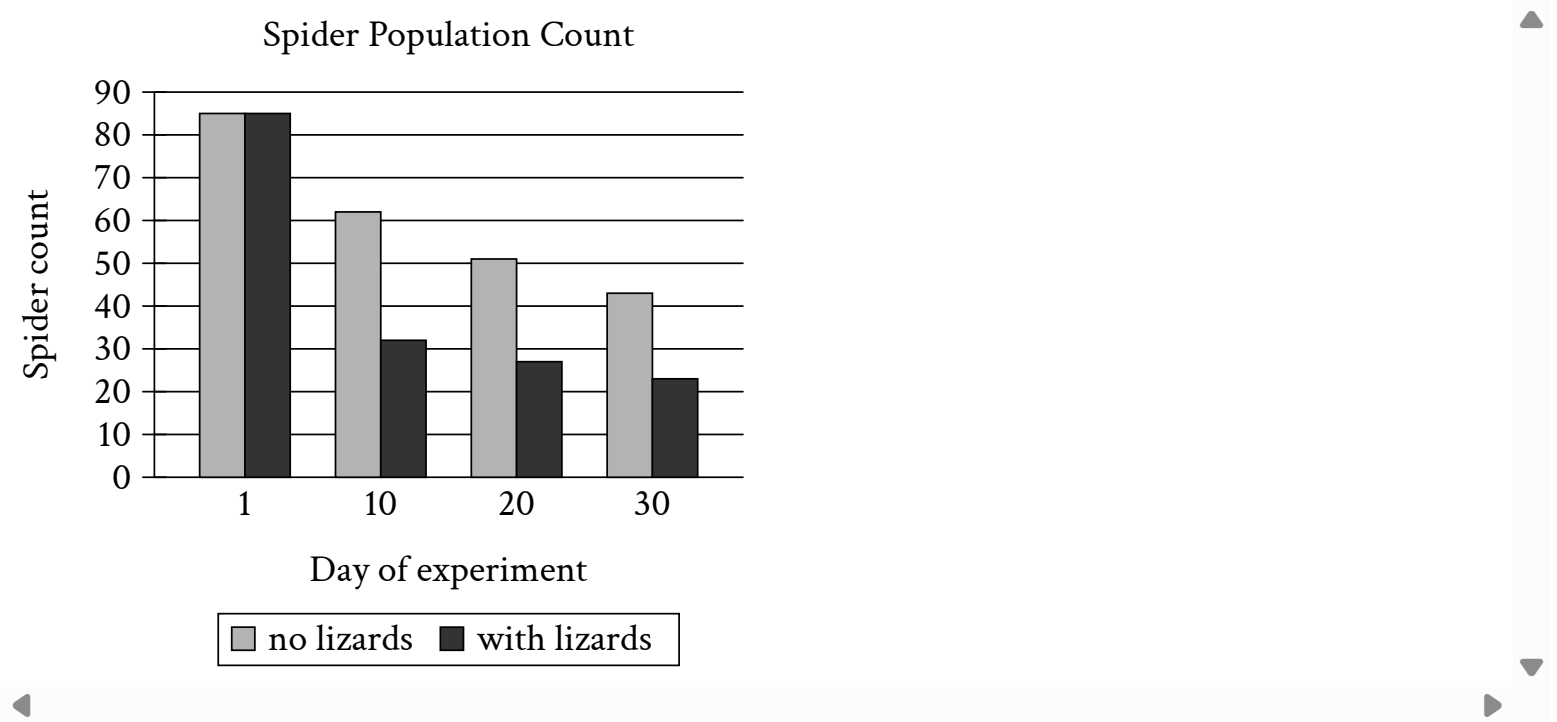
In a study of the evolution of *DptA* and *DptB*—*Diptericin* genes encoding antimicrobial peptides that combat pathogens and foster beneficial microbes in fruit flies (*Drosophila*)—researchers assessed *Drosophila melanogaster* resistance to pathogenic infections by *Providencia rettgeri* and *Acetobacter 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.

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.

# 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.

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*.

# 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.

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.

# 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.

# 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."

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%                                  |

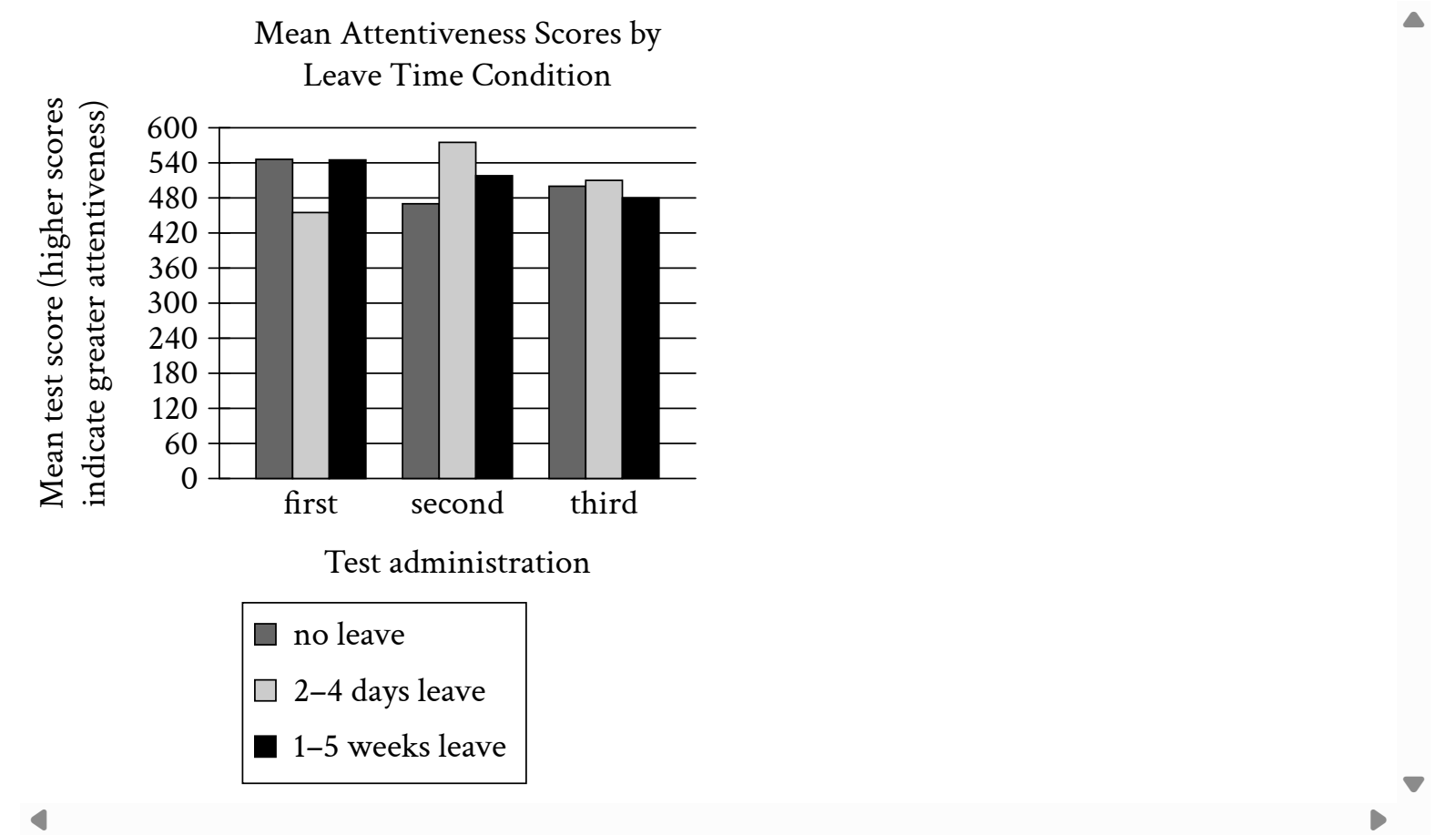
Alicia Montesinos-Navarro, Isabelle Storer, and Rocío Perez-Barrales recently examined several plots within a diverse plant community in southeast Spain. The researchers calculated that if individual plants were randomly distributed on this particular landscape, only about 15% would be with other plants 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.

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.

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.

# 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.

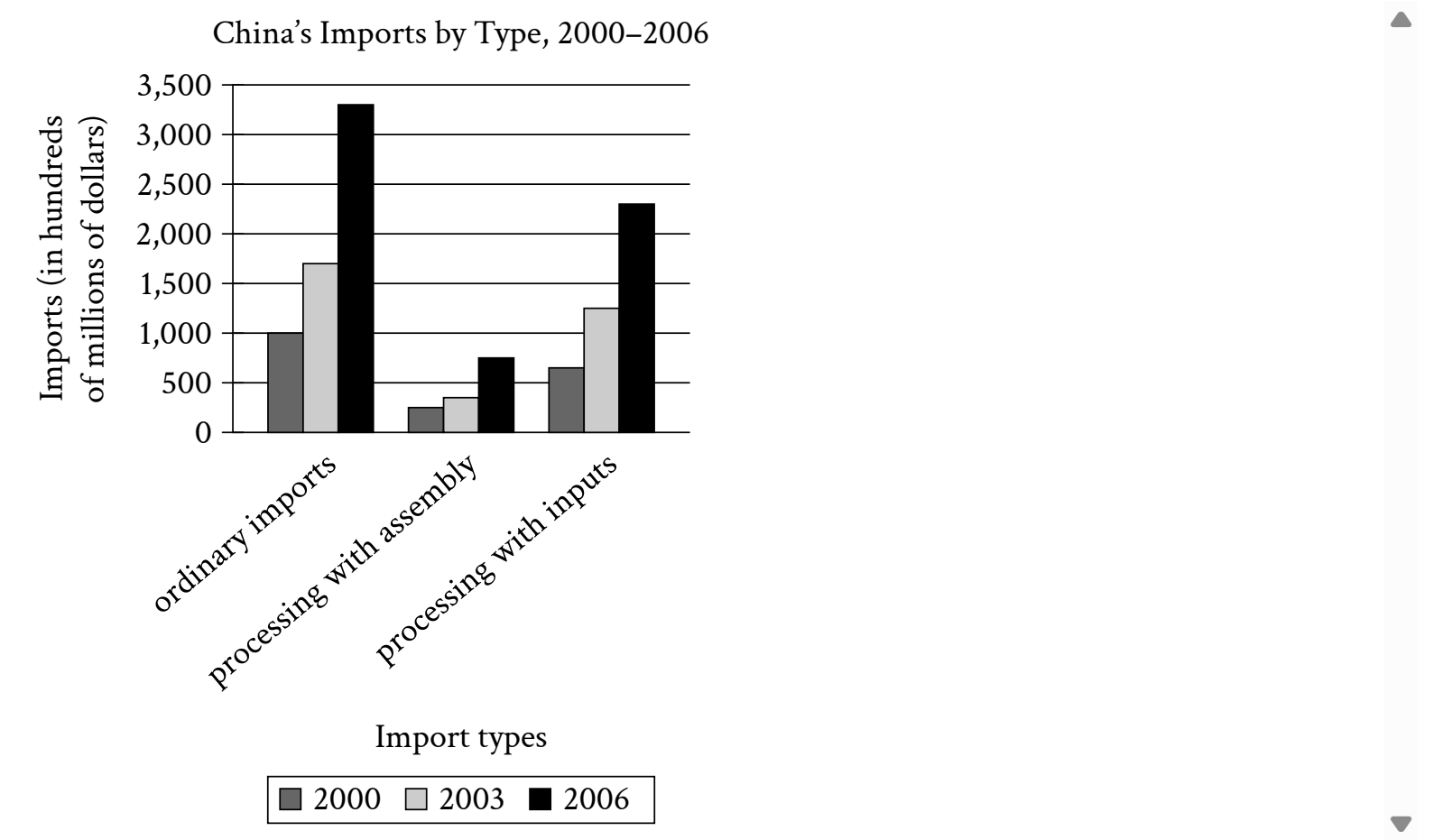
Which finding, if true, would most directly support the team’s idea?

- 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.

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.

# 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.

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.

# 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."

# 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.”

# 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.

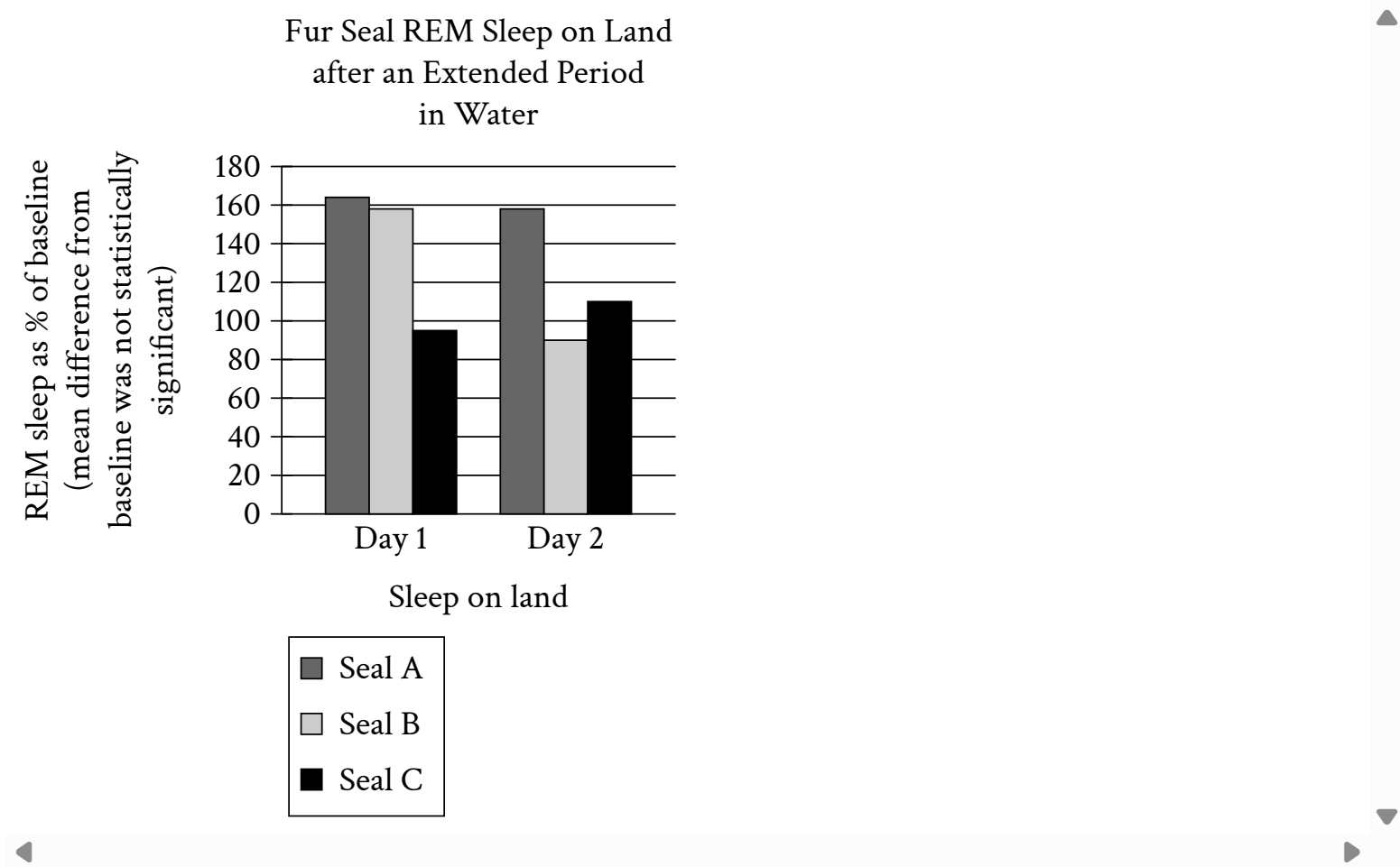
Which finding, if true, would most strongly support the underlined explanation?

- 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.

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



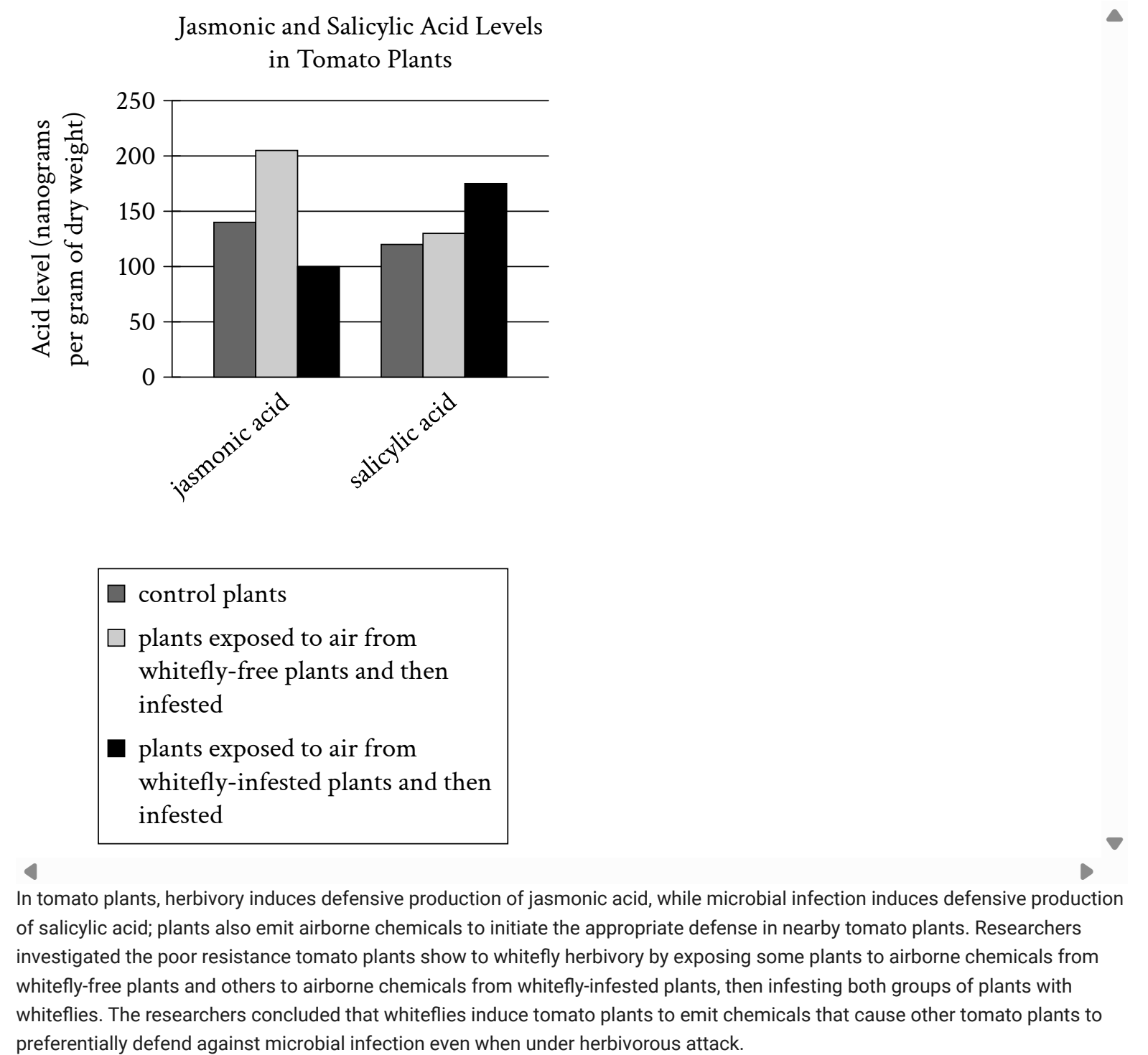
Research suggests that REM sleep in animals is homeostatically regulated: animals compensate for periods of REM sleep deprivation by increasing subsequent REM sleep. When on land, fur seals get enough REM sleep, but during the weeks they're in the water, they get almost none. In a study of fur seals' 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.

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.

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.

# 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.

# 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.

# 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.”

# 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.

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.

# 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."

# 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?

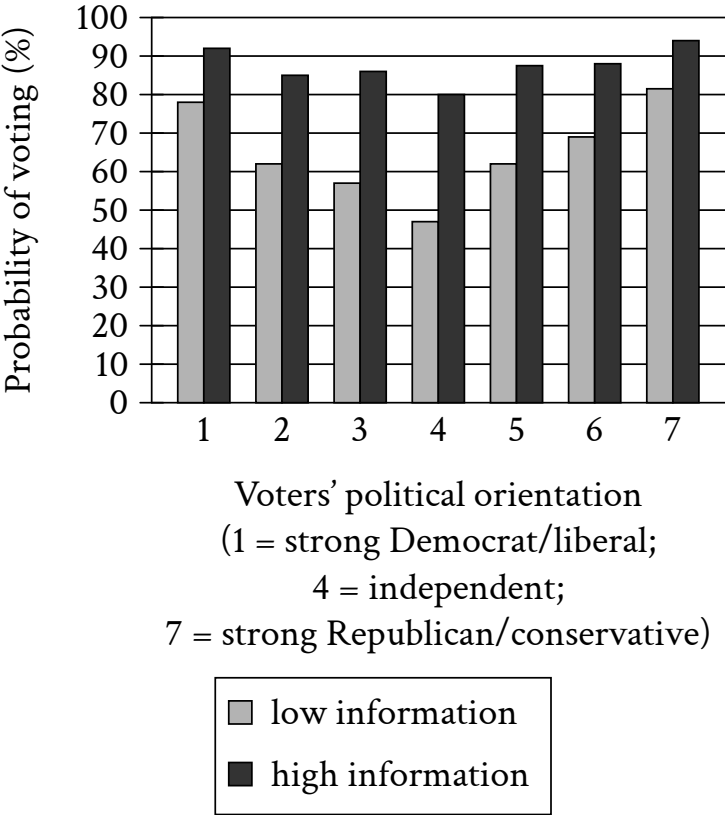
- A. there were 49 guilds in Bordeaux but 72 guilds in Lyon despite the two cities having nearly equal numbers of inhabitants.
- B. Lyon had far fewer inhabitants than Paris did but had many more guilds.
- C. there was one guild for every 661 inhabitants in Rouen but one guild for every 4,511 inhabitants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

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.



# 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.

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.

# 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.

# 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.

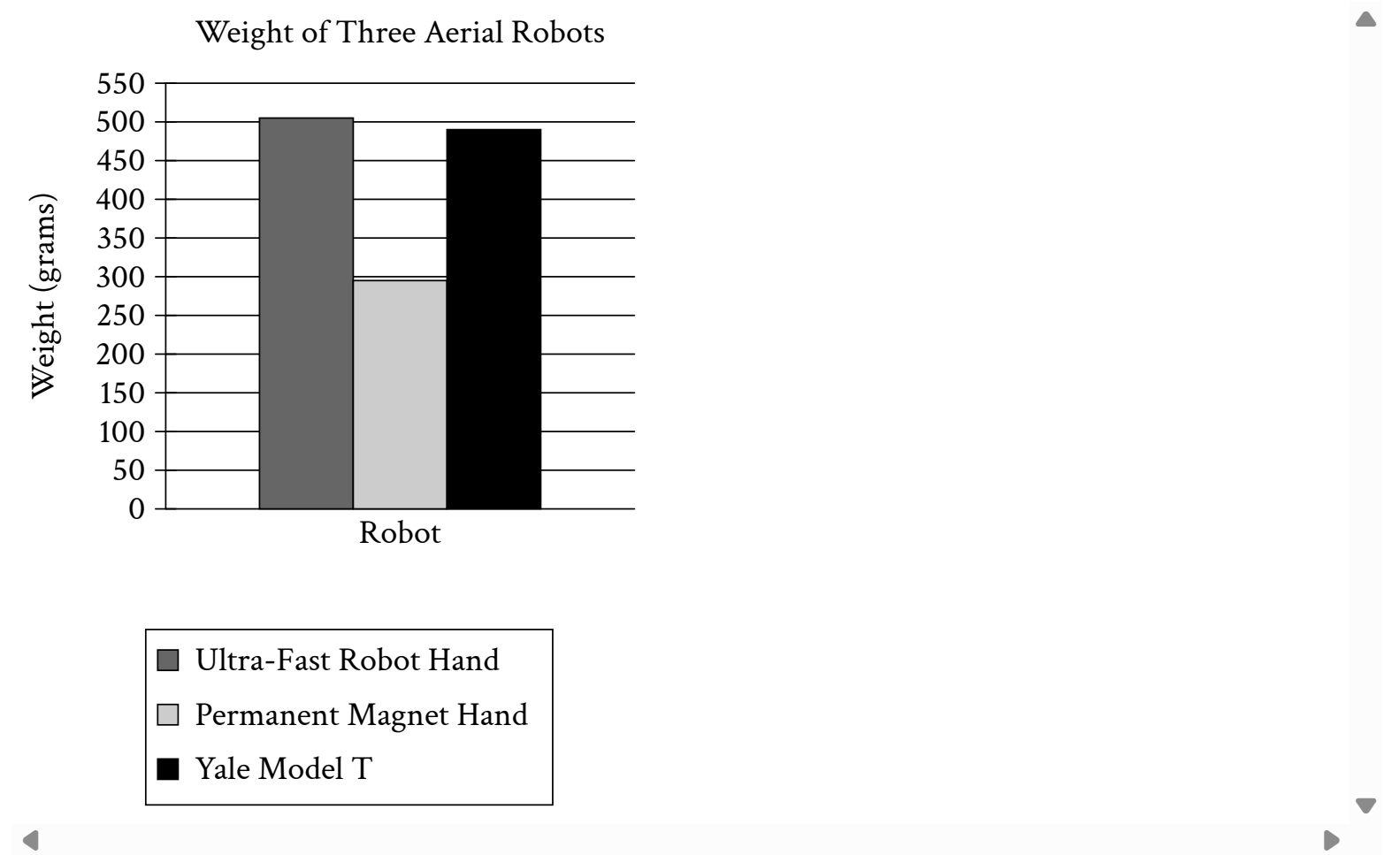
Which statement, if true, would most directly support the student’s claim?

- 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.

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.

# 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?

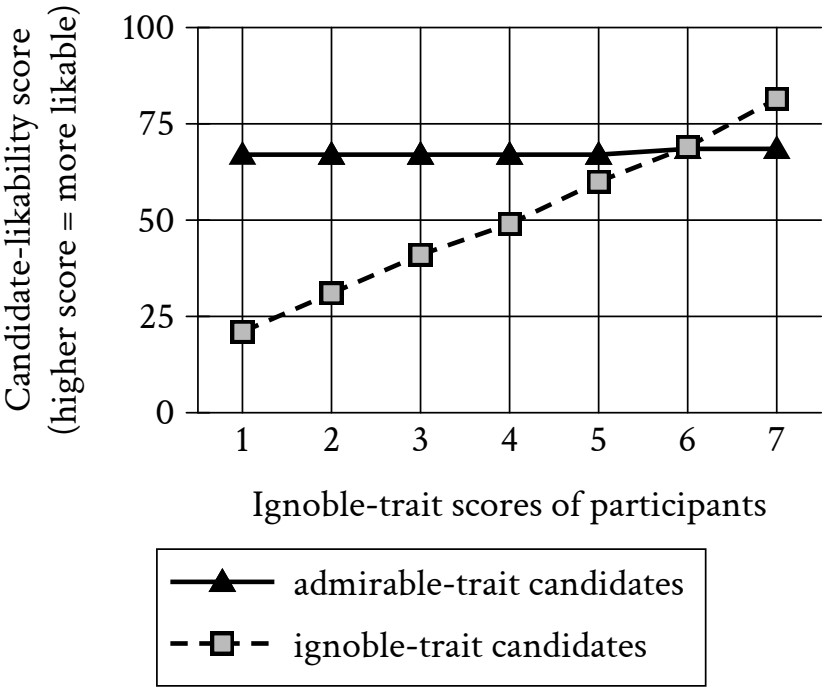
- A. “I heard her murmur, ‘I can’t bear flowers on a table.’ They had evidently been giving her intense pain, for she positively closed her eyes as I moved them away.”
- B. “While we waited she took out a little, gold powder-box with a mirror in the lid, shook the poor little puff as though she loathed 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.”

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

Participants' Likability Ratings for  
Candidates by Candidates' Traits  
and Participants' Ignoble-Trait Scores



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?

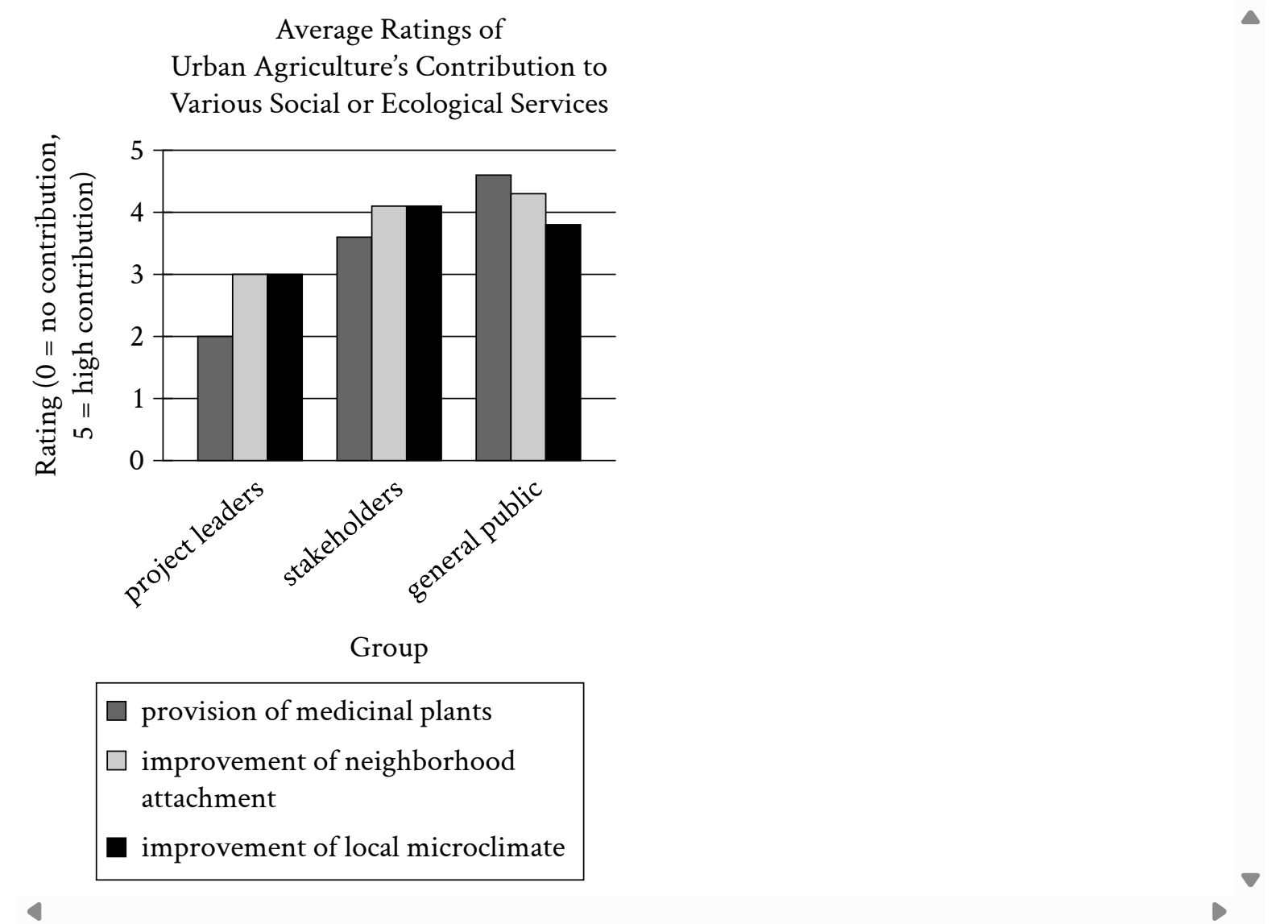
- A. There was a strong positive correlation between participants' ignobility scores and admirable-trait candidates' likability ratings, but there was no correlation between ignobility scores and ignoble-trait candidates' likability ratings.
- B. Participants with an ignobility score of 5 or less rated 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.

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></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.

# 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.

# 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.”

# 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.

# 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.

# 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.

# 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.

# 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.

# 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.”

# 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?

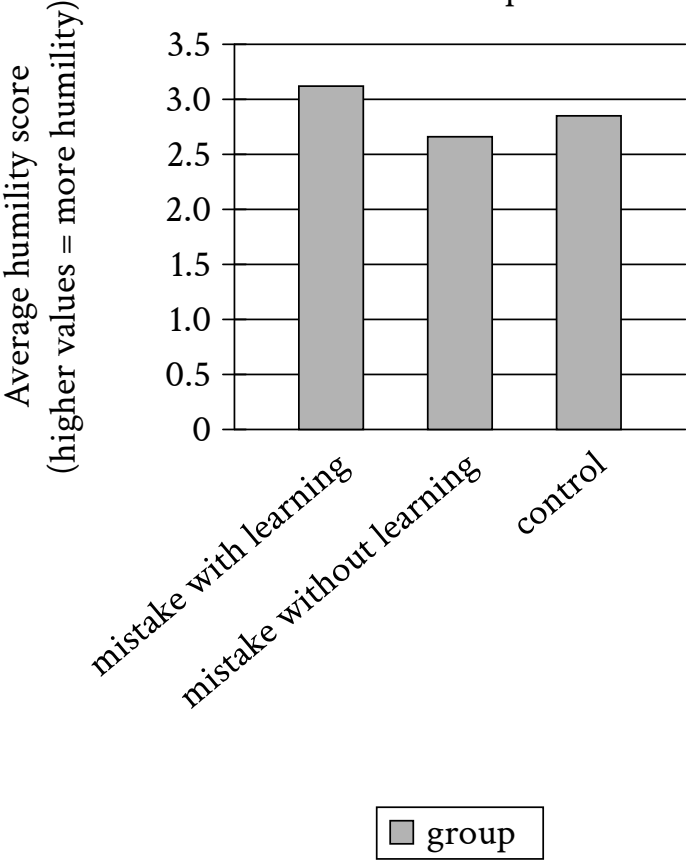
- A. Its dimensions and shape indicate that it is unlikely to have formed as the result of an asteroid or comet impact.
- B. It has features suggesting that it once held an ocean that underwent gradual sea-level changes over an extended time.
- C. Its physical characteristics are most consistent with 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.

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></div></div> |

ID: 4e861b80

Humility Scores for Participants' Scenario Responses



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.

# 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?

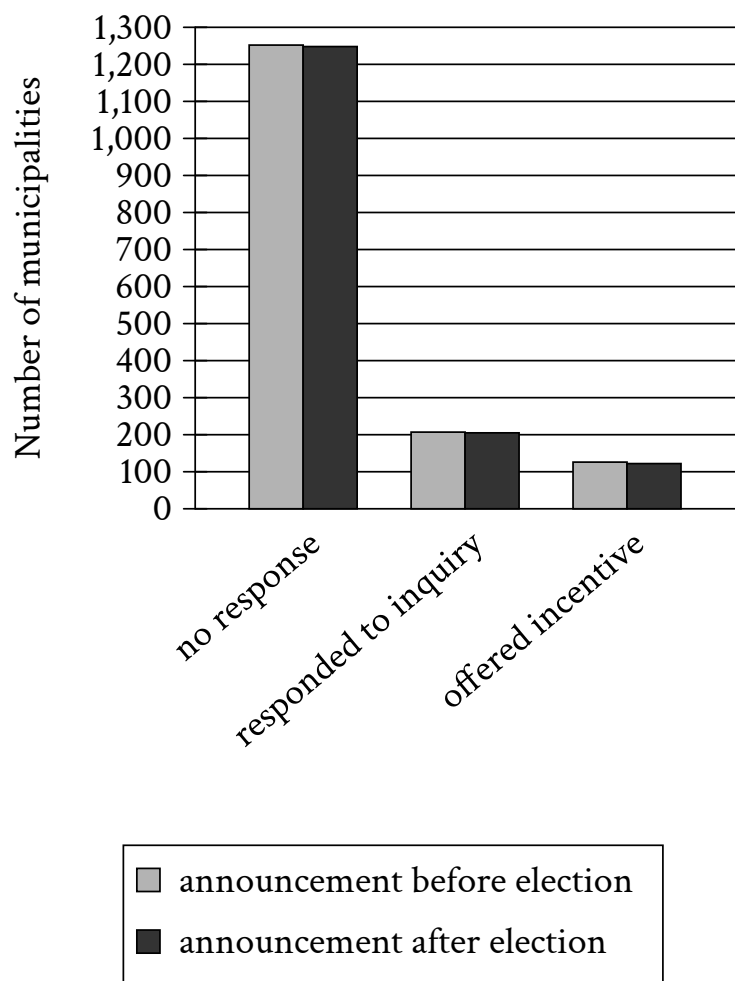
- A. Users who interacted with an ad were much more likely to do so by clicking on the ad’s “like” button than they were to interact with the ad in any other way.
- B. Users who interacted with an ad were significantly more likely to purchase the advertised product at the time they saw the ad than were 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.

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.

# 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.”

# 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.

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.

# 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.

# 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?

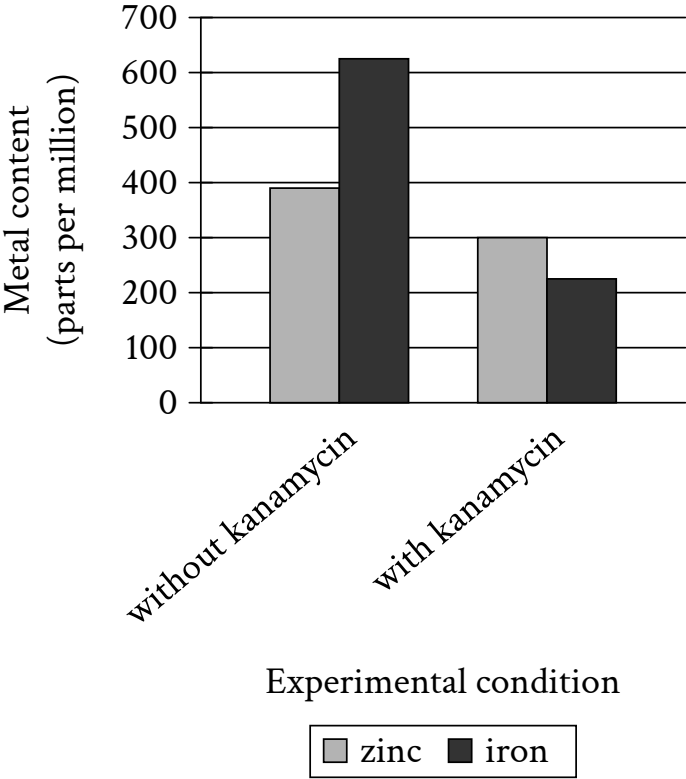
- A. "Although a number of ancient Indigenous artistic traditions pictured human forms in profile, the forms populating the surface of *A History of Mexico* suggest a specifically Maya influence."
- B. "In *A History of Mexico*, the synthesis of ancient and modernist traditions functions as a stylistic 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."

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.

# 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.

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.

# 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.

# 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.

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.

# 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.”

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.

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.

# 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?

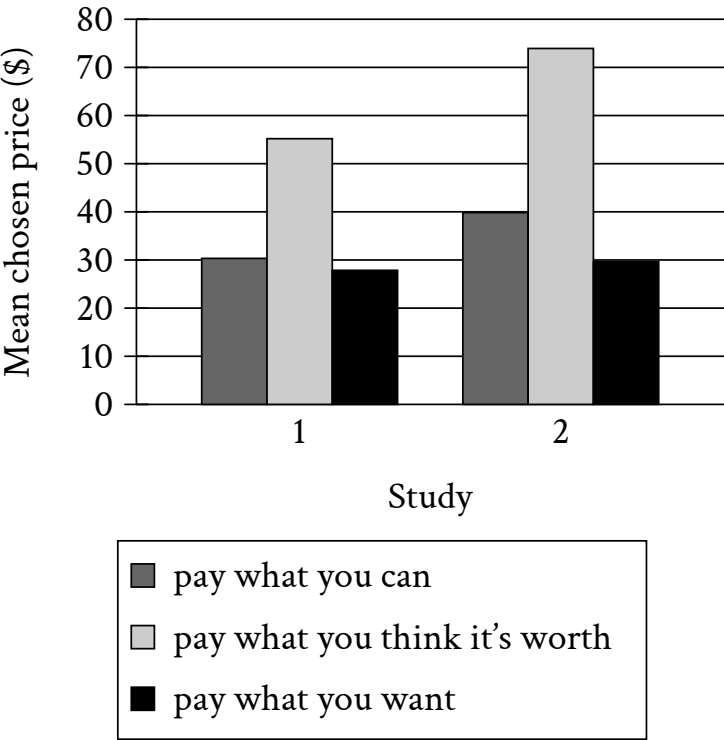
- A. *BovB* can be transmitted across frog species through HT.
- B. Parasites known to feed on species of snakes and frogs in which the *BovB* gene occurs also carry *BovB*.
- C. *BovB* cannot be reliably transmitted from a snake species to bacteria that are usually encountered by frog species.
- D. Frog species with *BovB* show few discernible advantages as compared with frog species that do not carry *BovB*.

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

Mean Ticket Prices Chosen in Two Studies of Participative Pricing Messaging



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.

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.

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.

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.

# 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.

# 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.”

# 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.

# 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.

# 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.

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.

# 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.”

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.

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.

# 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.”

# 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.

# 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.”

# 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.

# 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.

# 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.

# 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.”

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%.

# 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!"

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?

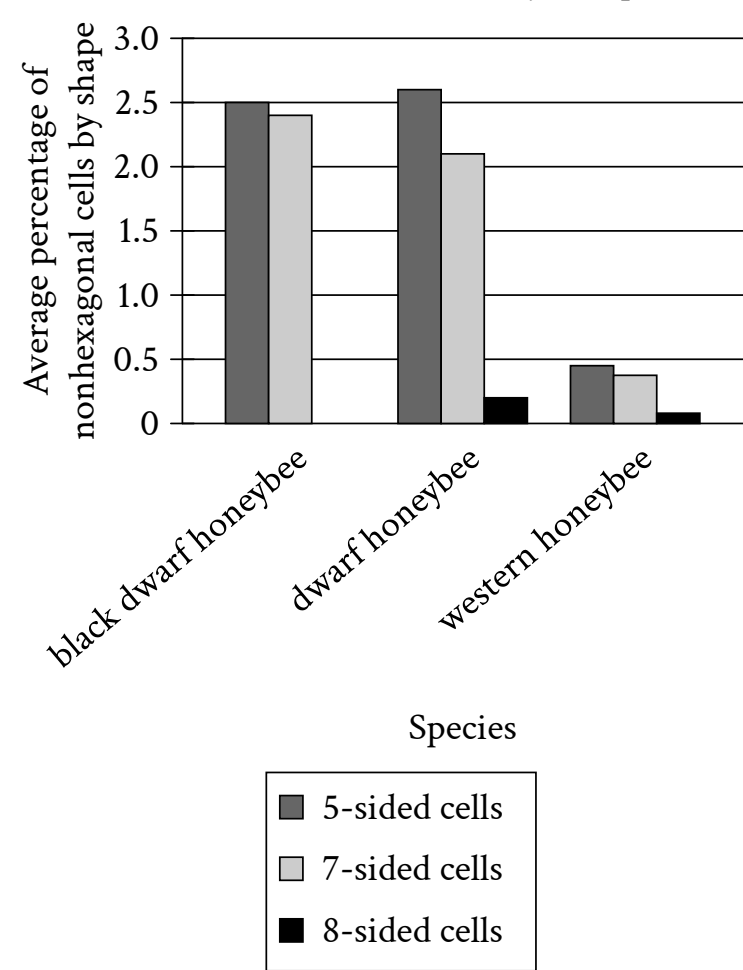
- A. 2007 using TEXES at the Gemini Observatory.
- B. 2007 using T-ReCS at the Gemini Observatory.
- C. 2006 using VISIR at the European Southern Observatory.
- D. 2003 using LWS at the W.M. Keck Observatory.

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.

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.

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.

# 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.

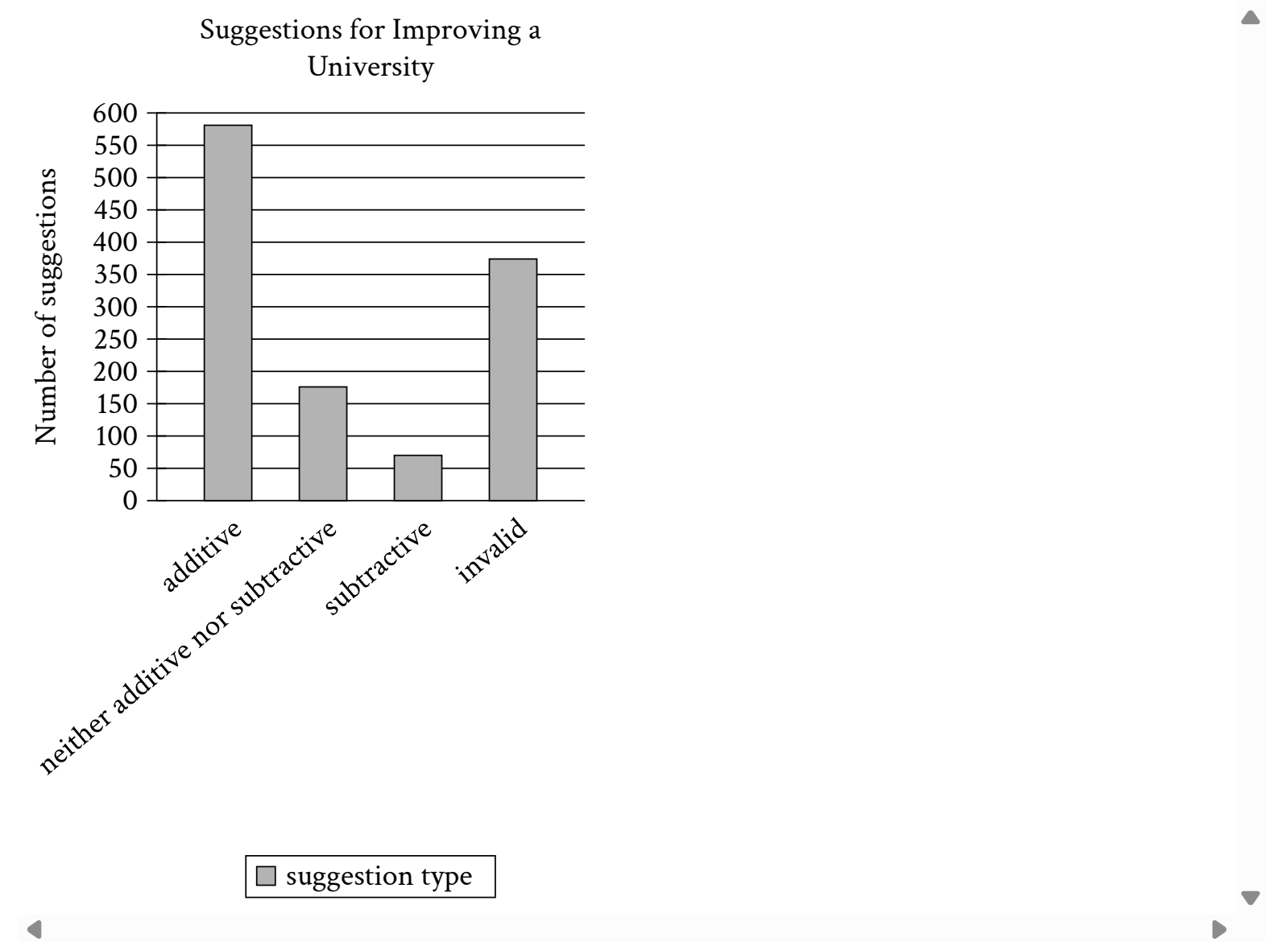
Which finding, if true, would most directly support Aburto-Oropeza and colleagues’ explanation?

- 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.

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> |

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.

# 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.

# 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.

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.

# 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.”

# 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.

# Question ID 5598e59d

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

# 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.

# 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.

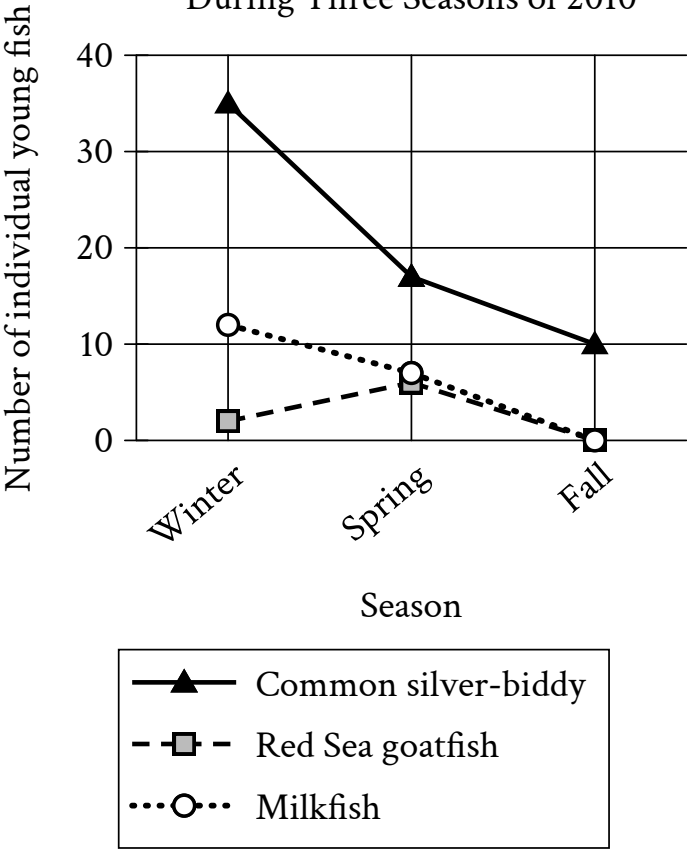


Question ID 91717abe

| 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.

# 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*.

# 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?

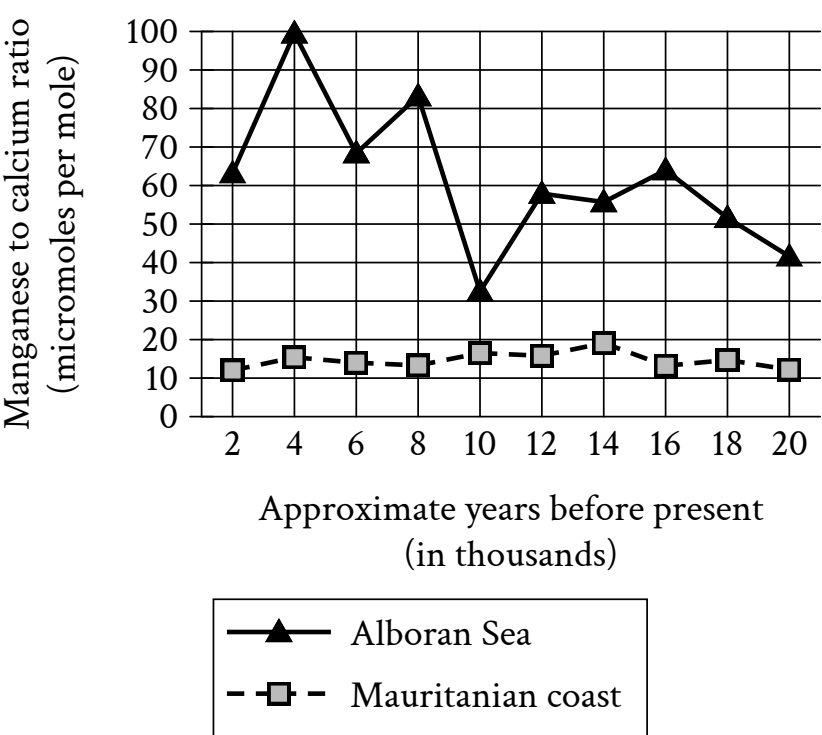
- A. “In *Mother and Child*, a sculpture of two Black figures, Catlett used an ancient Indigenous sculpting technique and combined the visual aesthetic of modern Mexican muralists with that of German artist Kathe Kollwitz.”
- B. “In her collage *New Generation*, Catlett overlaid fabric onto the canvas 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.”

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.