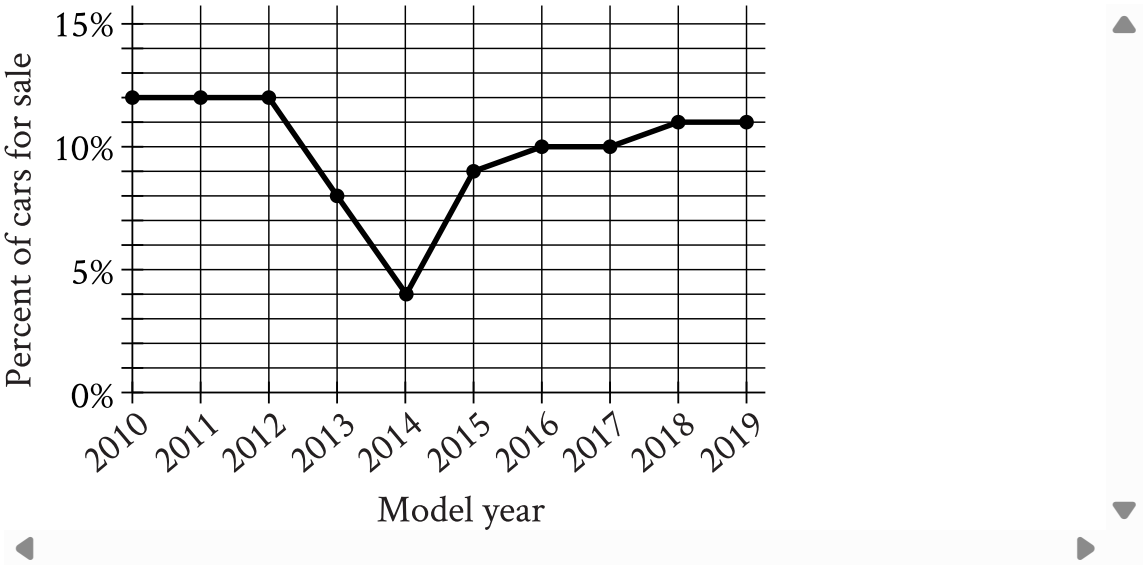
Question ID b15976ec

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: b15976ec

The line graph shows the percent of cars for sale at a used car lot on a given day by model year.



For what model year is the percent of cars for sale the smallest?

A. 2012

B. 2013

C. 2014

D. 2015

ID: b15976ec Answer

Correct Answer: C

Rationale

Choice C is correct. For the given line graph, the percent of cars for sale at a used car lot on a given day is represented on the vertical axis. The percent of cars for sale is the smallest when the height of the line graph is the lowest. The lowest height of the line graph occurs for cars with a model year of 2014.

Choice A is incorrect and may result from conceptual errors.

Choice B is incorrect and may result from conceptual errors.

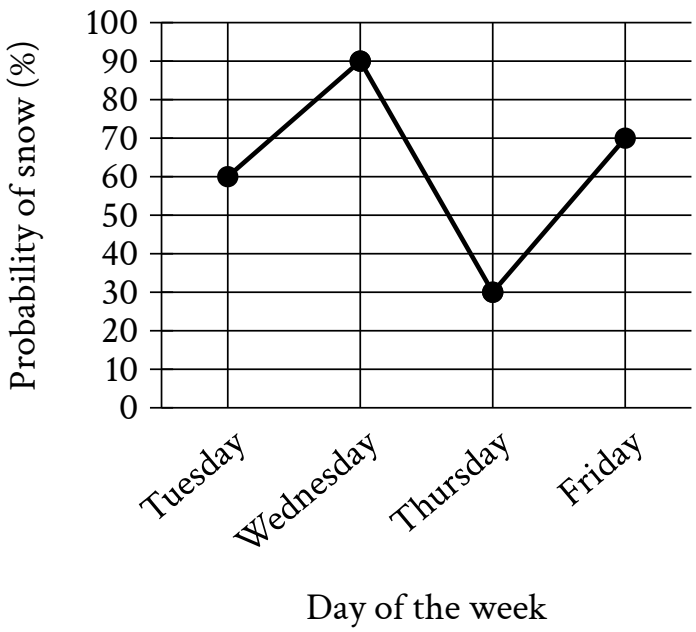
Choice D is incorrect and may result from conceptual errors.

Question Difficulty: Easy

Question ID 2e8afd9f

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 2e8afd9f



The line graph shows the probability of snow, as a percent, at a certain location for each day during a four-day period. According to the line graph, for which day during this four-day period is the probability of snow 30%?

A. Tuesday

B. Wednesday

C. Thursday

D. Friday

ID: 2e8afd9f Answer

Correct Answer: C

Rationale

Choice C is correct. For the line graph shown, the probability of snow, as a percent, is represented on the vertical axis. According to the line graph, during this four-day period, the probability of snow is 30% for Thursday.

Choice A is incorrect. The probability of snow on Tuesday is 60%.

Choice B is incorrect. The probability of snow on Wednesday is 90%.

Choice D is incorrect. The probability of snow on Friday is 70%.

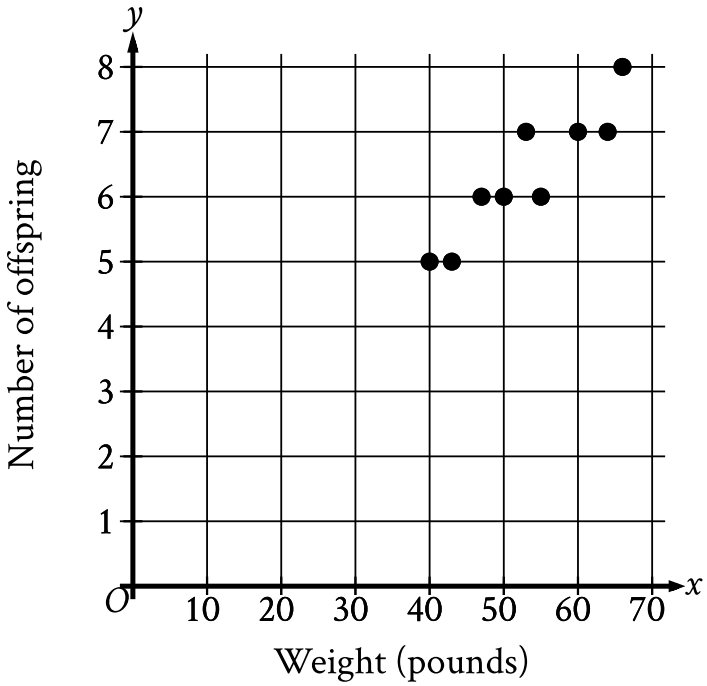
Question Difficulty: Easy

Question ID 90183871

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 90183871

The scatterplot shows the relationship between the weight, in pounds, of each of 9 female gray wolves on April 30 and the number of offspring each gray wolf produced.



How many offspring did the 50-pound gray wolf produce?

A. 8

B. 7

C. 6

D. 5

ID: 90183871 Answer

Correct Answer: C

Rationale

Choice C is correct. For each point on the scatterplot shown, the *x*-value represents the weight, in pounds, of a female gray wolf and the *y*-value represents the number of offspring that wolf produced. The point on the graph with an *x*-value of 50 has a *y*-value of 6. Therefore, the 50-pound gray wolf produced 6 offspring.

Choice A is incorrect. One of the wolves produced 8 offspring, but its weight was greater than 50 pounds.

Choice B is incorrect. Three of the wolves produced 7 offspring each, but their weights were each greater than 50 pounds.

Choice D is incorrect. Two of the wolves produced 5 offspring each, but their weights were each less than 50 pounds.

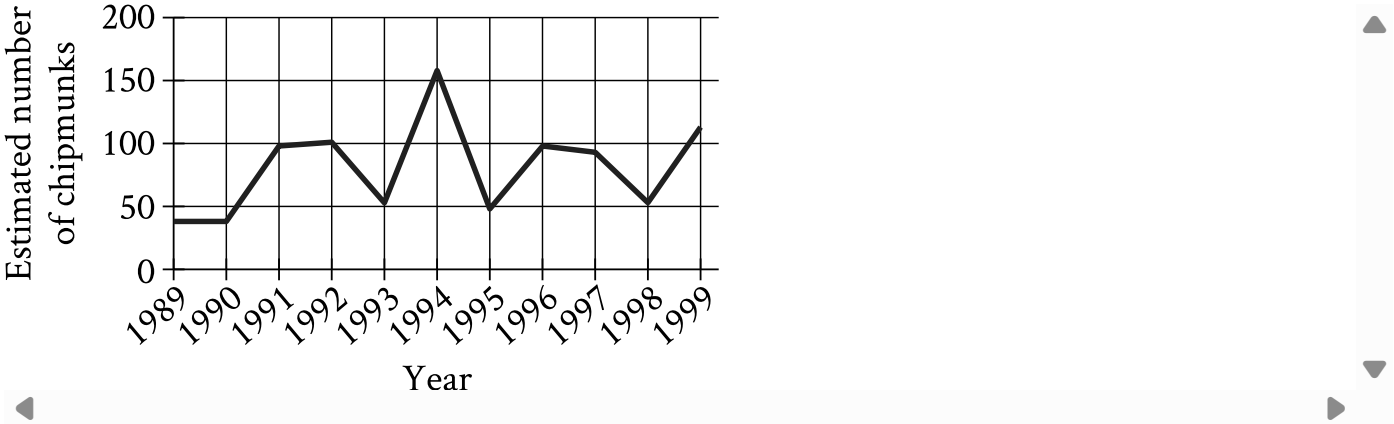
Question Difficulty: Easy

Question ID 87754441

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 87754441

The line graph shows the estimated number of chipmunks in a state park on April 1 of each year from 1989 to 1999.



Based on the line graph, in which year was the estimated number of chipmunks in the state park the greatest?

A. 1989

B. 1994

C. 1995

D. 1998

ID: 87754441 Answer

Correct Answer: B

Rationale

Choice B is correct. For the given line graph, the estimated number of chipmunks is represented on the vertical axis. The greatest estimated number of chipmunks in the state park is indicated by the greatest height in the line graph. This height is achieved when the year is 1994.

Choice A is incorrect and may result from conceptual errors.

Choice C is incorrect and may result from conceptual errors.

Choice D is incorrect and may result from conceptual errors.

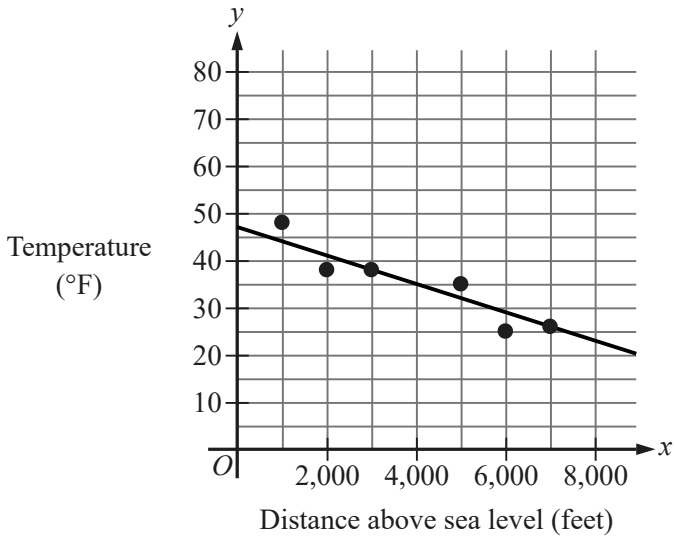
Question Difficulty: Easy

Question ID cdf7fe10

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: cdf7fe10

The scatterplot shows the temperature, in degrees Fahrenheit ($^\circ\text{F}$), and the distance above sea level, in feet, measured at 6 locations on Mount Jefferson. A line of best fit is also shown.



At a distance of $4{,}000$ feet above sea level, what is the temperature, in $^\circ\text{F}$, predicted by the line of best fit?

A. 47

B. 35

C. 25

D. 0

ID: cdf7fe10 Answer

Correct Answer: B

Rationale

Choice B is correct. In the given scatterplot, the *x*-values represent the distance above sea level, in feet, and the *y*-values represent the temperature, in $^\circ\text{F}$. The point on the line of best fit with an *x*-value of $4{,}000$ has a corresponding *y*-value of 35. Therefore, at a distance of $4{,}000$ feet above sea level, the temperature predicted by the line of best fit is $35\,^\circ\text{F}$.

Choice A is incorrect. This is the temperature, in $^\circ\text{F}$, predicted by the line of best fit at a distance of 0 feet above sea level.

Choice C is incorrect. This is the measured temperature, in $^\circ\text{F}$, at a distance of $6{,}000$ feet above sea level.

Choice D is incorrect and may result from conceptual or calculation errors.

Question Difficulty: Easy