

Question ID c47256ca

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Ratios, rates, proportional relationships, and units	■ □ □

ID: c47256ca

An object's speed is **64 yards** per second. What is the object's speed, in feet per second? (**1 yard = 3 feet**)

- A. **61**
- B. **67**
- C. **94**
- D. **192**

1)

Question ID 4bb25495

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	One-variable data: Distributions and measures of center and spread	■ □ □

ID: 4bb25495

Five Smallest Countries in 2016

Country	Land area (square kilometers)
Monaco	2.0
Nauru	21
San Marino	61
Tuvalu	26
Vatican City	0.44

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The table above shows the land area, in square kilometers, of the five smallest countries of the world in 2016. Based on the table, what is the mean land area of the 5 smallest countries in 2016, to the nearest square kilometer?

- A. 20
- B. 22
- C. 61
- D. 110

Question ID dae79de4

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Probability and conditional probability	■ □ □

ID: dae79de4

	1 visit	2 or more visits	Total
Less than 40 years old	15	15	30
At least 40 years old	20	85	105
Total	35	100	135

The table summarizes customers who visited a car dealership in the last month by age and number of visits they made to the dealership. If a customer from the last month is selected at random, what is the probability that the selected customer is at least 40 years old?

- A. $\frac{30}{135}$
- B. $\frac{85}{135}$
- C. $\frac{100}{135}$
- D. $\frac{105}{135}$

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Question ID a478f9f5

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Probability and conditional probability	■ □ □

ID: a478f9f5

Each of **157** gemstones can be classified as one of three classifications, as shown in the frequency table.

Classification	Frequency
color X	119
color Y	3
color Z	35

If one of the gemstones is selected at random, what is the probability of selecting a gemstone of color Y?

- A. $\frac{3}{157}$
B. $\frac{35}{157}$
C. $\frac{119}{157}$
D. $\frac{154}{157}$

4)

Question ID 8bf3f67a

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Ratios, rates, proportional relationships, and units	■ □ □

ID: 8bf3f67a

A special camera is used for underwater ocean research. The camera is at a depth of **39** fathoms. What is the camera's depth in feet? (**1 fathom = 6 feet**)

- A. **234**
- B. **117**
- C. **45**
- D. **7**

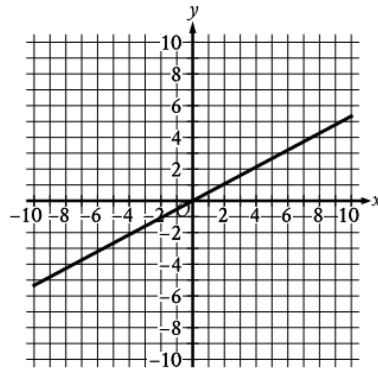
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Question ID c141366d

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: c141366d

The graph of function f is shown, where $y = f(x)$.



Which of the following describes function f ?

- A. Increasing linear
- B. Decreasing linear
- C. Increasing exponential
- D. Decreasing exponential

6)

Question ID 7ed0d098

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Percentages	

ID: 7ed0d098

Lani spent 15% of her 8-hour workday in meetings. How many minutes of her workday did she spend in meetings?

- A. 1.2
- B. 15
- C. 48
- D. 72

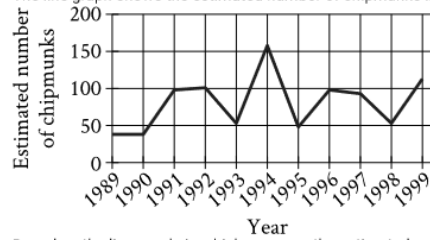
7)

Question ID 2e511919

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: 2e511919

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**

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Question ID 273b7f37

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Percentages	

ID: 273b7f37

Isabel grows potatoes in her garden. This year, she harvested **760** potatoes and saved **10%** of them to plant next year. How many of the harvested potatoes did Isabel save to plant next year?

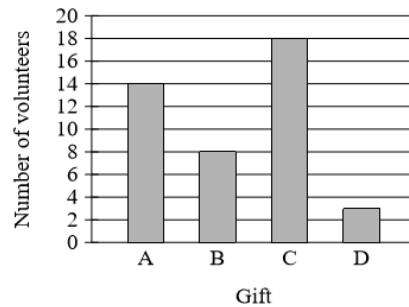
- A. ~~66~~
- B. **76**
- C. ~~84~~
- D. **86**

9)

Question ID 6e3ab4bf

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	One-variable data: Distributions and measures of center and spread	■ □ □

ID: 6e3ab4bf



10)

In April, there were **43** volunteers in a cleanup project. Each volunteer was asked to choose a small gift labeled A, B, C, or D. The bar graph shows the number of volunteers who chose each gift. How many volunteers chose gift C?

- A. **3**
- B. **8**
- C. **14**
- D. **18**

Question ID 7270d642

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Ratios, rates, proportional relationships, and units	■ □ □

ID: 7270d642

A certain bird species can fly at an average speed of **16** meters per second when in continuous flight. At this rate, how many meters would this bird species fly in **4** seconds?

- A. **64**
- B. **20**
- C. **16**
- D. **12**

11)

Question ID 9c44f828

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Percentages	■ □ □

ID: 9c44f828

There are a total of ~~840~~ seats in a school auditorium. During an assembly, students occupied ~~50%~~ of the seats in the auditorium. How many seats did the students occupy during this assembly?

- A. ~~25~~
- B. ~~50~~
- C. ~~420~~
- D. ~~790~~

12)

Question ID 2a08d878

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Probability and conditional probability	■ □ □

ID: 2a08d878

There are n nonfiction books and 12 fiction books on a bookshelf. If one of these books is selected at random, what is the probability of selecting a nonfiction book, in terms of n ?

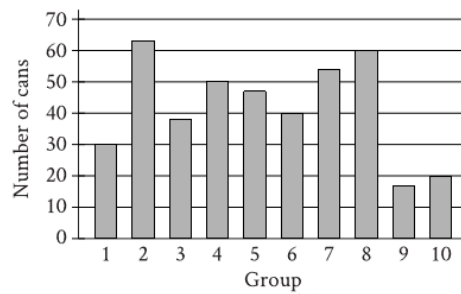
- A. $\frac{n}{12}$
- B. $\frac{n}{n+12}$
- C. $\frac{12}{n}$
- D. $\frac{12}{n+12}$

13)

Question ID 820d7a73

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	One-variable data: Distributions and measures of center and spread	■ □ □

ID: 820d7a73



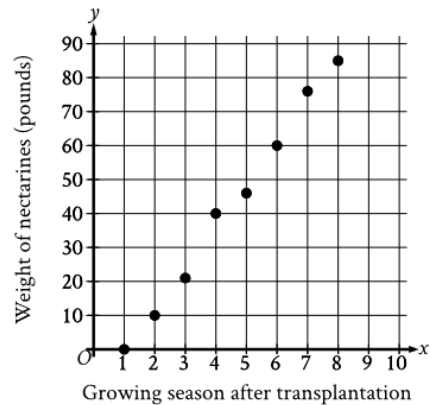
The bar graph shows the distribution of **419** cans collected by **10** different groups for a food drive. How many cans were collected by group **6**?

Question ID b58dbf88

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: b58dbf88

An orchard owner recorded the weight, in pounds, of all nectarines that grew on a dwarf nectarine tree during each growing season after the tree's transplantation. The scatterplot shows this weight, in pounds, for each growing season after the tree's transplantation.



15)

What was the weight, to the nearest pound, of all nectarines that grew on the tree during the ~~4th~~ growing season after the tree's transplantation?

Question ID 55cfaf22

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	One-variable data: Distributions and measures of center and spread	

ID: 55cfaf22

Data set X: 5, 9, 9, 13

Data set Y: 5, 9, 9, 13, 27

The lists give the values in data sets X and Y. Which statement correctly compares the mean of data set X and the mean of data set Y?

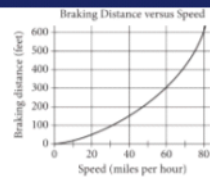
- A. The mean of data set X is greater than the mean of data set Y.
- B. The mean of data set X is less than the mean of data set Y.
- C. The means of data set X and data set Y are equal.
- D. There is not enough information to compare the means.

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Question ID d6121490

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: d6121490



The graph above shows the relationship between the speed of a particular car, in miles per hour, and its corresponding braking distance, in feet. Approximately how many feet greater will the car's braking distance be when the car is traveling at 50 miles per hour than when the car is traveling at 30 miles per hour?

- A. 75
- B. 125
- C. 175
- D. 250

17)

Question ID d1db8def

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	One-variable data: Distributions and measures of center and spread	■ □ □

ID: d1db8def

Response	Frequency
Once a week or more	3
Two or three times a month	16
About once a month	26
A few times a year	73
Almost never	53
Never	29
Total	200

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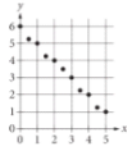
The table gives the results of a survey of **200** people who were asked how often they see a movie in a theater. How many people responded either "never" or "almost never"?

- A. **24**
- B. **53**
- C. **82**
- D. **118**

Question ID 9296553d

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: 9296553d



19)

Which of the following could be an equation for a line of best fit for the data in the scatterplot?

- A. $y = -x + 6$
- B. $y = -x - 6$
- C. $y = 6x + 1$
- D. $y = 6x - 1$

Question ID 66f03086

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	One-variable data: Distributions and measures of center and spread	■ □ □

ID: 66f03086

71, 72, 73, 76, 77, 79, 83, 87, 93

What is the median of the data shown?

- A. **71**
- B. **77**
- C. **78**
- D. **79**

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Question ID 3ac09984

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Ratios, rates, proportional relationships, and units	

ID: 3ac09984

Marta has 7,500 pesos she will convert to US dollars using a currency exchange service. At this time, the currency exchange rate is 1 peso = 0.075 US dollars. The exchange service will charge Marta a 2% fee on the converted US dollar amount. How many US dollars will Marta receive from the currency exchange after the 2% fee is applied?

- A. \$551.25
- B. \$562.50
- C. \$5,625.00
- D. \$98,000.00

21)

Question ID 43744269

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: 43744269

An airplane descends from an altitude of **9,500** feet to **5,000** feet at a constant rate of **400** feet per minute. What type of function best models the relationship between the descending airplane's altitude and time?

- A. Decreasing exponential
- B. Decreasing linear
- C. Increasing exponential
- D. Increasing linear

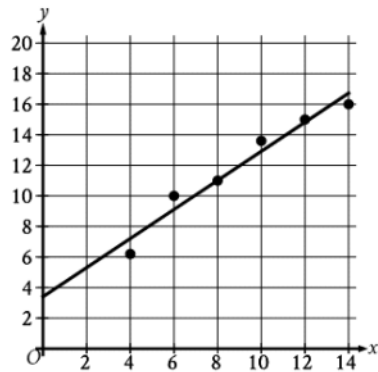
221

Question ID c5ee6ac0

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: c5ee6ac0

The scatterplot shows the relationship between two variables, x and y . A line of best fit is also shown.



23)

Which of the following equations best represents the line of best fit shown?

- A. $y = x + 3.4$
- B. $y = x - 3.4$
- C. $y = -x + 3.4$
- D. $y = -x - 3.4$

Question ID 82dfb646

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Evaluating statistical claims: Observational studies and experiments	■ □ □

ID: 82dfb646

A market researcher selected 200 people at random from a group of people who indicated that they liked a certain book. The 200 people were shown a movie based on the book and then asked whether they liked or disliked the movie. Of those surveyed, 95% said they disliked the movie. Which of the following inferences can appropriately be drawn from this survey result?

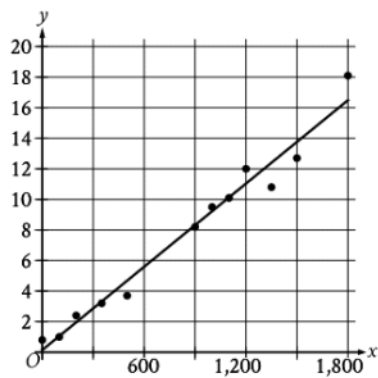
24)

- A. At least 95% of people who go see movies will dislike this movie.
- B. At least 95% of people who read books will dislike this movie.
- C. Most people who dislike this book will like this movie.
- D. Most people who like this book will dislike this movie.

Question ID ae32cc3c

Assessment	Test	Domain	Skill	Difficulty
SAT	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	■ □ □

ID: ae32cc3c



Twelve data points are shown in the scatterplot. A line of best fit for the data is also shown. At $x = 1,200$, which of the following is closest to the y -value predicted by the line of best fit?

- A. 16
- B. 14
- C. 11
- D. 6

25)