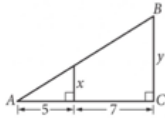


Math: Question 17

11th	10th	9th
7%	18%	2%



Note: Figure not drawn to scale.



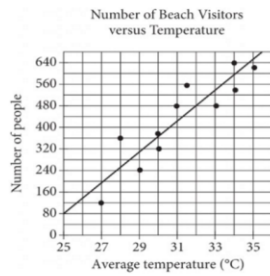
NO CALCULATOR



The area of triangle ABC above is at least 48 but no more than 60. If y is an integer, what is one possible value of x ?

Math: Question 31

Questions 30 and 31 refer to the following information.



11th	10th	9th
16%	31%	7%

Each dot in the scatterplot above represents the temperature and the number of people who visited a beach in Lagos, Nigeria, on one of eleven different days. The line of best fit for the data is also shown.

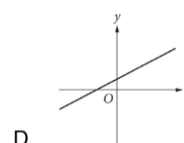
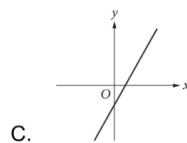
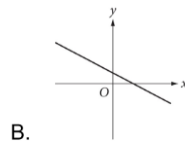
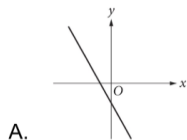
The line of best fit for the data has a slope of approximately 57. According to this estimate, how many additional people per day are predicted to visit the beach for each 5°C increase in average temperature?

Math: Question 23

11th	10th	9th
20%	29%	19%

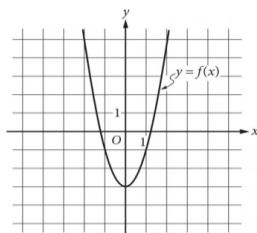
$Ax + By = C$

In the equation above, A , B , and C are positive constants. Which of the following could be the graph of the equation in the xy -plane?



Math: Question 26

11th	10th	9th
24%	34%	17%



The graph of $f(x)$ is shown above. If $g(x) = (x - 1)(x - 5)$, what is the value of $g(0) - f(0)$?

- A. 8
- B. 2
- C. 0
- D. -2

Math: Question 27

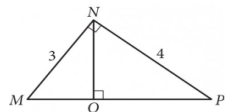
11th	10th	9th
25%	33%	19%

$ax + b = 3x - 4$

In the equation above, a and b are constants. If the equation has no solution, which of the following statements must be true about a and b ?

- A. $a \neq 3$ and $b \neq 4$
- B. $a = 3$ and $b \neq -4$
- C. $a = 3$ and $b = -4$
- D. $a = -3$ and $b = 4$

Math: Question 24



11th	10th	9th
31%	36%	20%

In the figure above, what is the length of \overline{NQ} ?

- A. 2.2
- B. 2.3
- C. 2.4
- D. 2.5

Math: Question 22

11th	10th	9th
31%	45%	25%

If $2y = x + 40$ and $3x = y + 20$, what is the value of $x + y$?

- A. 28
- B. 34
- C. 38
- D. 44

Math: Question 25

11th	10th	9th
31%	45%	22%

The table below shows the distribution of US states according to whether they have a state-level sales tax and a state-level income tax.

2013 State-Level Taxes

	State sales tax	No state sales tax
State income tax	39	4
No state income tax	6	1

To the nearest tenth of a percent, what percent of states with a state-level sales tax do not have a state-level income tax?

- A. 6.0%
- B. 12.0%
- C. 13.3%
- D. 14.0%

Math: Question 29

11th	10th	9th
34%	50%	18%

$(x - 9)(x + 3) = -36$

In the equation above, what is the value of $x + 3$?

Math: Question 20

11th	10th	9th
35%	43%	27%



The scatterplot above shows the size x and the sale price y of 25 houses for sale in Town H. Which of the following could be an equation for a line of best fit for the data?

- A. $y = 200x + 100$
- B. $y = 100x + 100$
- C. $y = 50x + 100$
- D. $y = 100x$