

Algebra Quick Quiz 11012019

Question 1.

The table shows Victor's wages as a function of the number of hours he works in a week. Overtime pay begins after 40 hours worked in one week. What is Victor's overtime pay rate?

Victor's Pay Scale	
Hours Worked	Wages (\$)
10	\$140
20	\$280
30	\$420
40	\$560
50	\$740
60	\$920

A \$10/hr

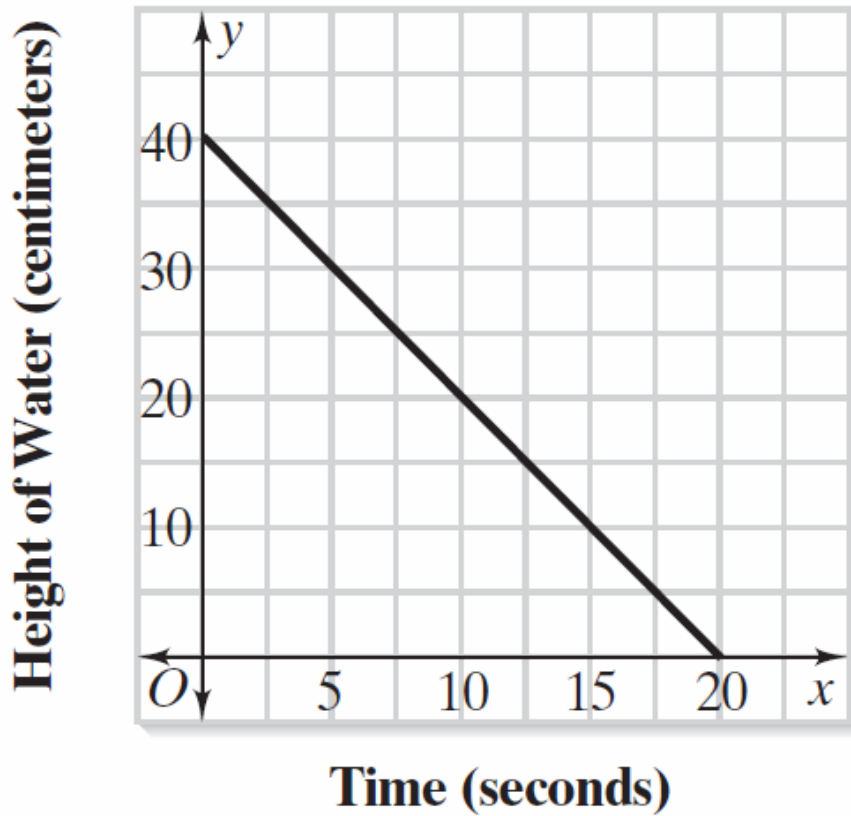
C \$18/hr

B \$14/hr

D \$180/hr

Question 2

The graph shows the height of water in a bucket as the water drains out of a hole in the bottom. Which of the following equations represents the line?



- A $y = 2.5x + 20$
- B $y = 20x + 2.5$
- C $y = -2x + 40$
- D $y = -40x + 2$

Question 3.

Which equation best models the data in the table?

x	$f(x)$
-1	$-\frac{1}{4}$
0	-1
1	-4
2	-16
3	-64

A $f(x) = 4^x$

B $f(x) = -4^x$

C $f(x) = x^4$

D $f(x) = -x^4$

Question 4.

If you graphed the equation $5x + 3y = 12$, you would find that ?

- A** the y -intercept is 4
- B** the line has a positive slope
- C** the x -intercept is $-\frac{5}{3}$
- D** the line contains the point $\left(\frac{2}{3}, 2\right)$

Question 5.

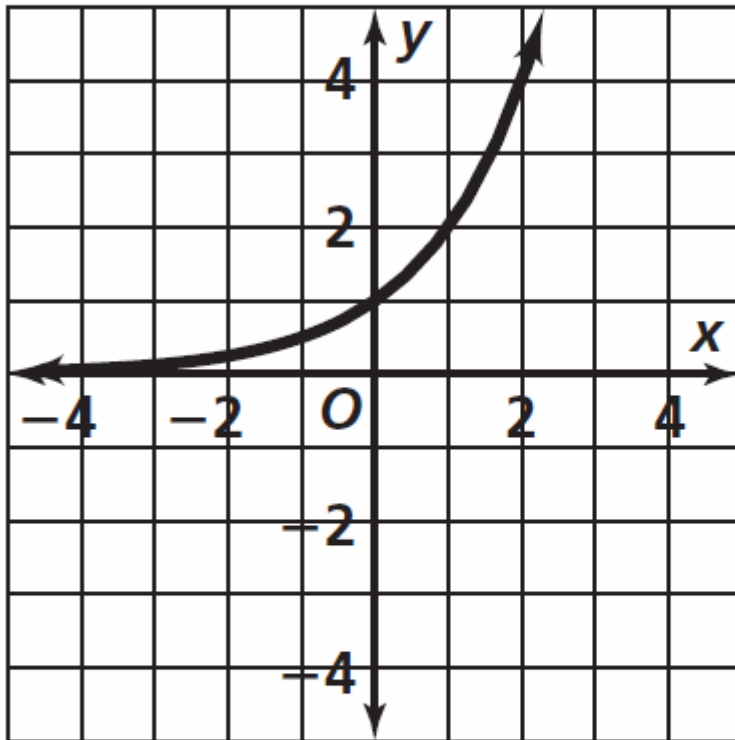
Julie recorded the data below. When she graphs the data, what will the y -intercept of the graph represent?

Week Number	Flower Height (inches)
1	4
2	5.5
3	7
4	8.5

- A** the change in flower height per week
- B** the change in flower height per day
- C** the initial height of the flower
- D** the final height of the flower

Question 6.

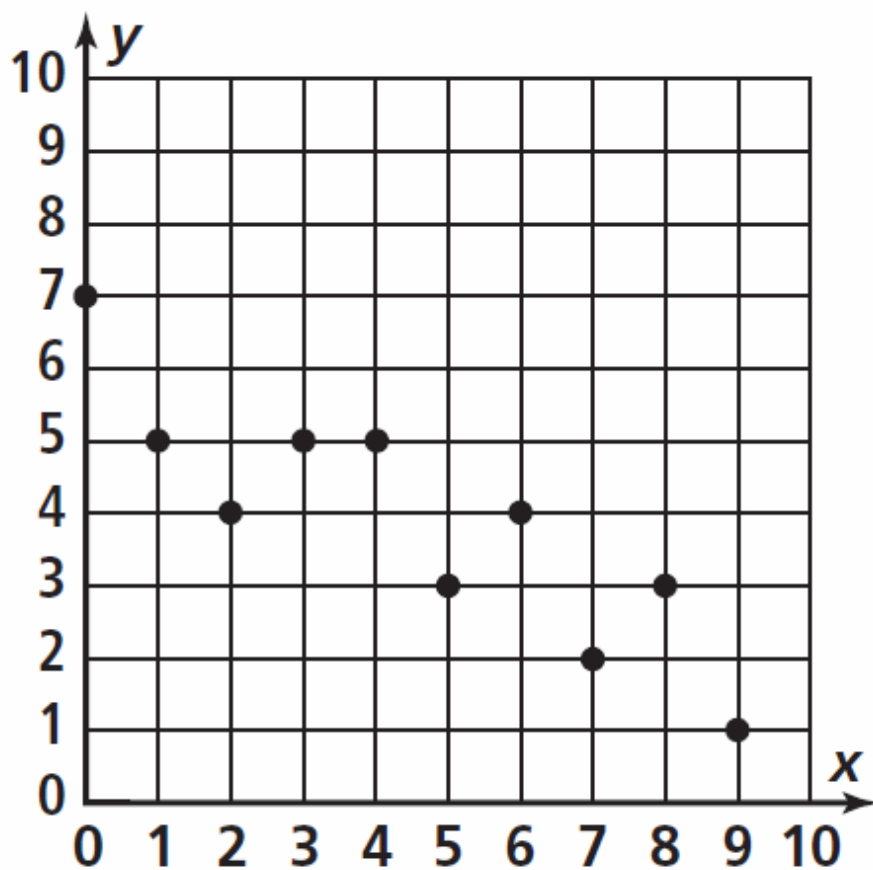
The function graphed below could be which of the following?



- A $y = 2x$
- B $y = -2x$
- C $y = -2^x$
- D $y = 2^x$

Question 7.

Which statement describes the general relationship between the x - and y -values of the points graphed below?



- A** As x increases, y increases.
- B** As x increases, y decreases.
- C** As x increases, y remains constant.
- D** There is no relationship between the x - and y -values.

Question 8.

What are the zeros of the function
 $f(x) = x^2 - 6x - 16$?

A -4 and 4

C -2 and 8

B 2 and 8

D 6 and 16

Question 9.

A golfer hit a golf ball off the tee. The equation $y = -4x^2 + 36x$ represents the height of the golf ball in feet y over time in seconds x . Solve the equation to identify and interpret the zeros of the function.

- A** The ball was in the air for 9 seconds.
- B** The ball went forward 9 feet.
- C** The ball was in the air for 36 seconds.
- D** The ball went forward 36 feet.

Question 10.

Which of the following are the solutions to $2x^2 - 11x + 12 = 0$?

A 4 and $\frac{3}{2}$

C $\frac{1}{2}$ and $\frac{7}{2}$

B 3 and -4

D $\frac{3}{4}$ and $\frac{2}{3}$

Bonus Question

Question 11

I just want to know how many of you already know this.

For which value is the function

$$y = \frac{1}{x - 5} \text{ undefined?}$$

A $x = -5$

C $x = 1$

B $x = 0$

D $x = 5$