

Quick Quiz 11052019

Question 1.

Which function is NOT linear?

**A**  $x + 2 = y$

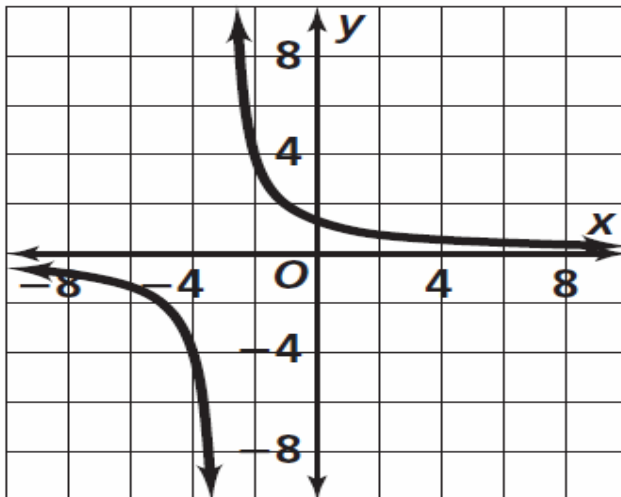
**C**  $x + y - 30 = 3x$

**B**  $\frac{x}{4} = y$

**D**  $y = 25 - x^2$

Question 2

The function  $y = \frac{4}{x + 3}$  is graphed below.



For which values is the function positive?

**A**  $x \leq 0$

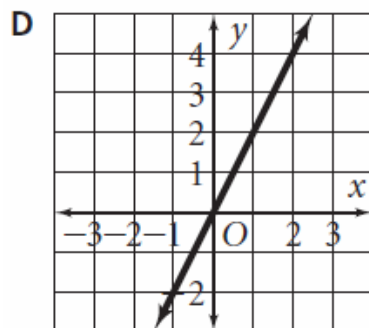
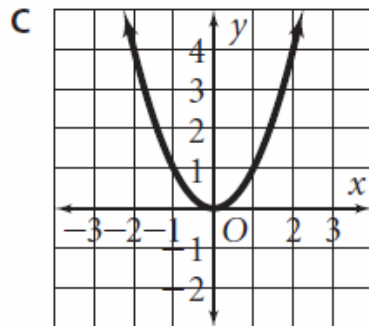
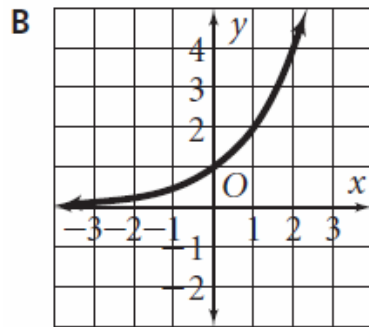
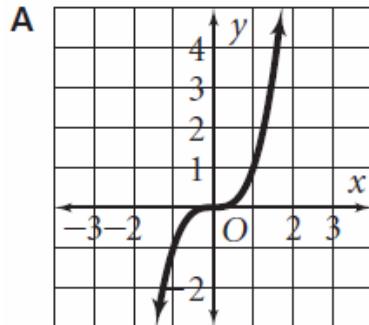
**C**  $x < -3$

**B**  $x > -3$

**D**  $x \geq -7$

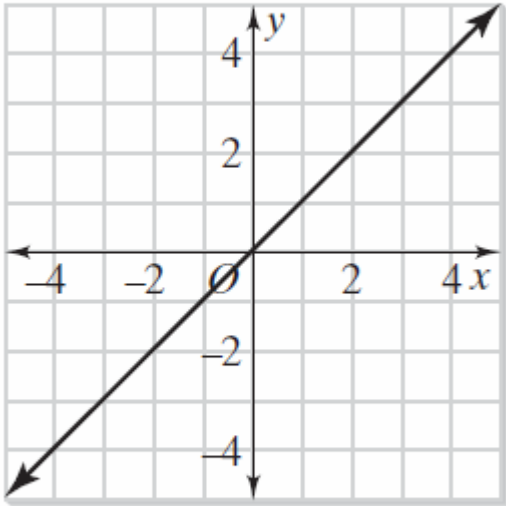
### Question 3.

Which of the following is a graph of a quadratic function?



Question 4.

Which equation represents the function graphed below?



**A**  $y = x$

**B**  $y = -x$

**C**  $y = 2x$

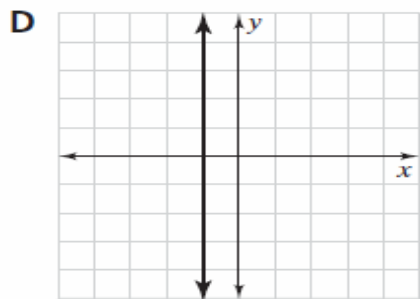
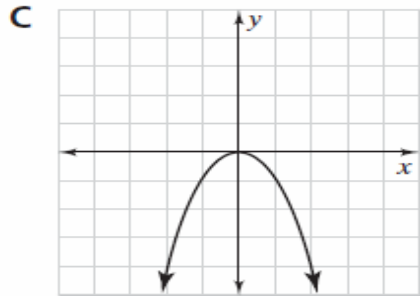
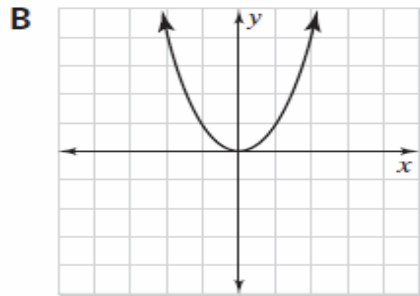
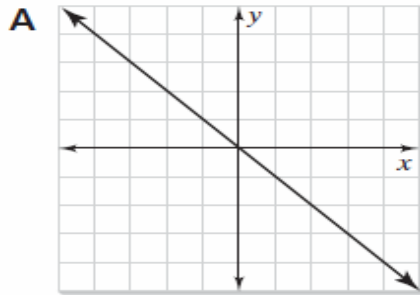
**D**  $y = 1 - x$

### Question 5.

You should be able to do this question without the use of a graphing calculator.

Which is the graph of the function

$$y = -x^2?$$



Question 6.

Which function does the table of values represent?

$x$	-2	-1	0	1	2
$y$	-3	0	1	0	-3

- A**  $y = -x^2 + 1$       **C**  $y = -2x^2 - 2$   
**B**  $y = x^3 - 5$       **D**  $y = 2x^3 + 9$

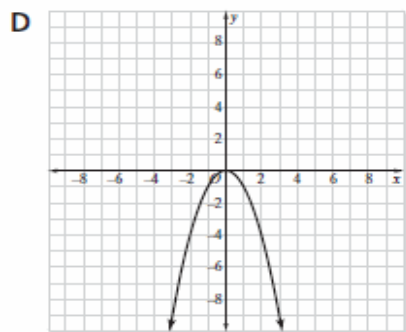
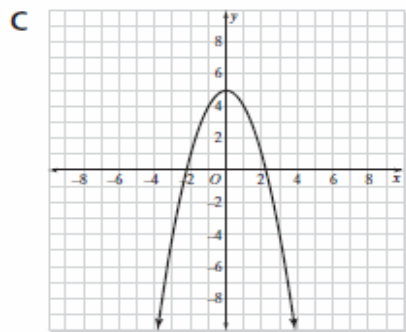
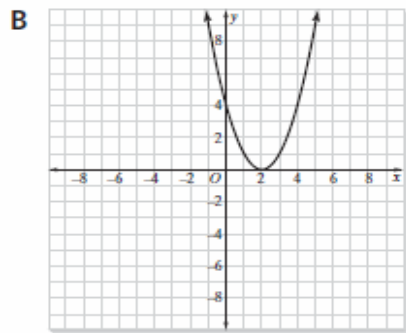
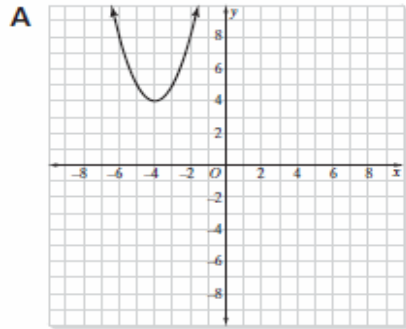
Question 7.

The solutions of a quadratic equation appear on the graph of the function as the \_\_\_\_\_?

- A**  $x$ -intercepts  
**B**  $y$ -intercepts  
**C**  $x$ -coordinates of the vertex  
**D**  $y$ -coordinates of the vertex

## Question 8.

Which of the following represents a graph of a quadratic function with no real-number solution?



### Question 9.

How many real solutions does the equation  $4x^2 - 20x + 25 = 0$  have?

- A none                      C two  
B one                        D three

### Question 10.

Try to solve this equation without using graphing software. You can then use graphs to check your answer.

Solve the equation  $(x + 3)(2x - 4) = 0$ .

- A  $x = -3$  or  $x = \frac{1}{2}$   
B  $x = 2$  or  $x = 3$   
C  $x = -3$  or  $x = 2$   
D  $x = \frac{1}{2}$  or  $x = 3$

## Bonus Question

### Question 11

After finding the zeros of the equation using either graphs or factoring you may want to draw a rectangle to help. Just a suggestion.

A rectangle has dimensions that are zeros of the equation  $2x^2 - 17x + 21 = 0$ .

What is the perimeter of the rectangle?

**A** 1.5

**C** 8.5

**B** 7

**D** 17