

Algebra 1 Quick quiz 12222022

Question 1.

Which function is NOT linear?

A $x + 2 = y$

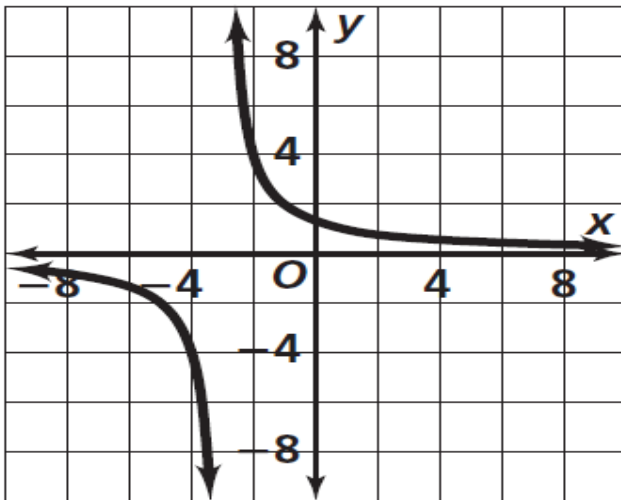
C $x + y - 30 = 3x$

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 $x \leq 0$

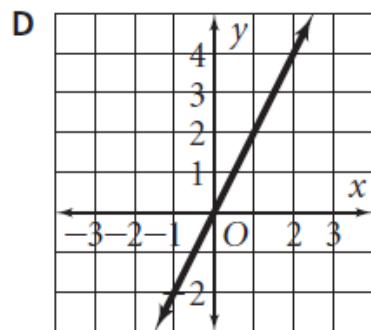
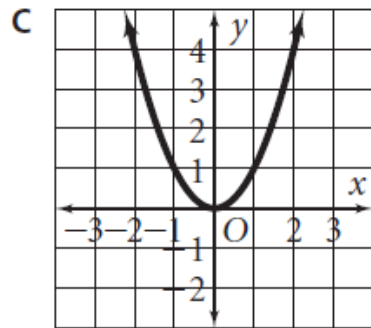
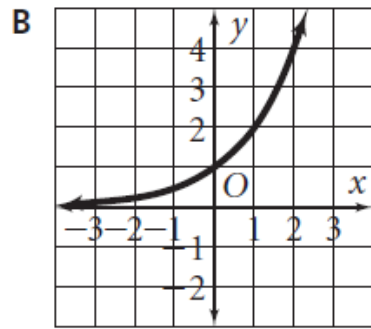
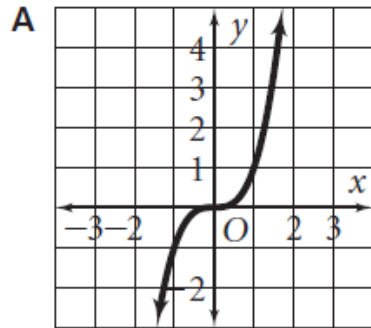
C $x < -3$

B $x > -3$

D $x \geq -7$

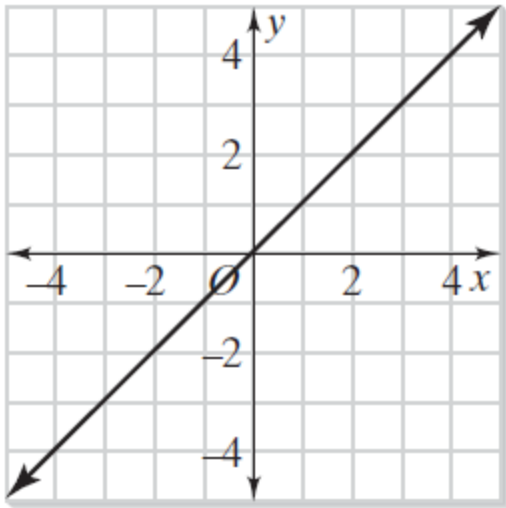
Question 3.

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 $y = 2x$

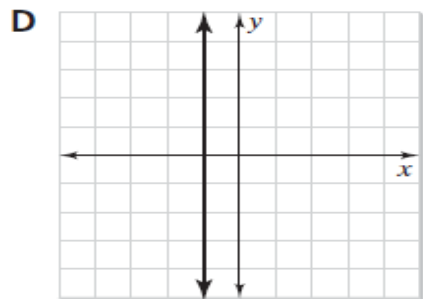
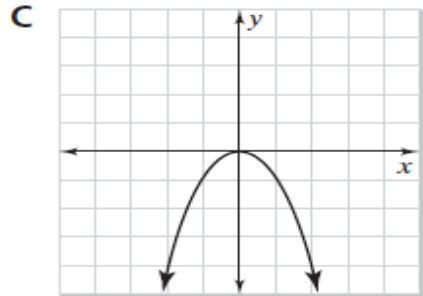
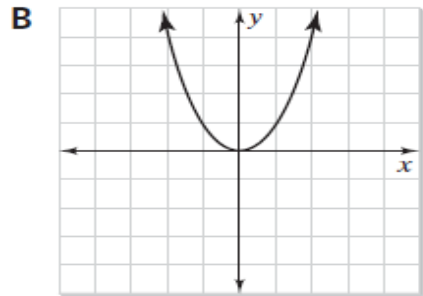
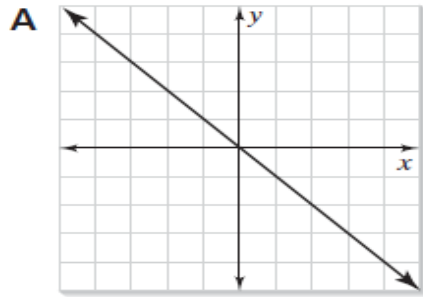
D $y = 1 - x$

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** $y = 2x^3 + 9$

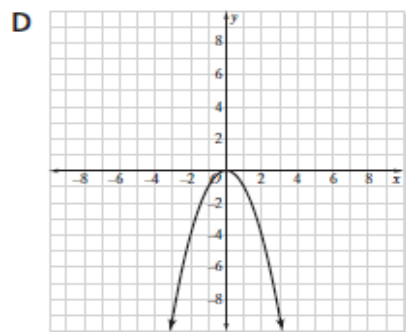
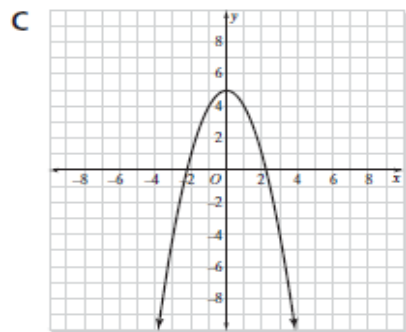
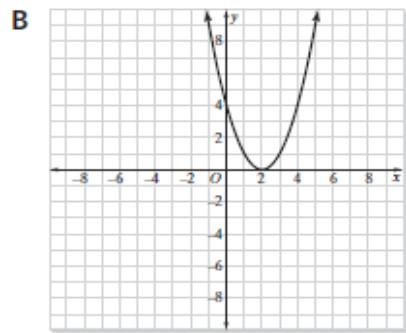
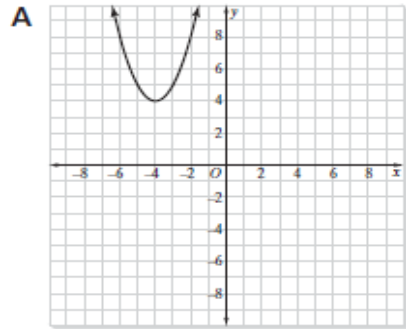
Question 7.

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
- B one
- C two
- 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