

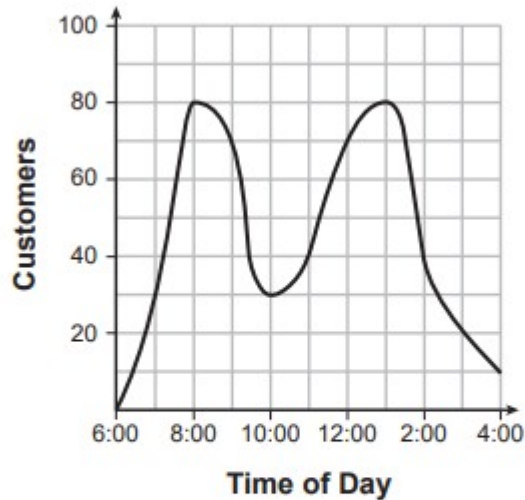
Algebra 1 Quick Quiz

September 18, 2024

Name.....Period.....

1.

A café owner tracks the number of customers during business hours. The graph below models the data.



Based on the graph, the café owner saw a continual

- (1) increase in customers from 6:00 to 11:00
- (2) increase in customers from 12:00 to 3:00
- (3) decrease in customers from 1:00 to 4:00
- (4) decrease in customers from 11:00 to 2:00

2.

The expression $(3x^2 + 4x - 8) + 2(11 - 5x)$ is equivalent to

- (1) $3x^2 - x + 5$
- (2) $3x^2 - x + 14$
- (3) $3x^2 - 6x + 14$
- (4) $3x^2 + 14x + 14$

3.

Which point is a solution to $y = x^3 - 2x^2$?

- (1) $(-3, -21)$
- (2) $(-2, 10)$
- (3) $(1, 1)$
- (4) $(4, 2)$

4.

What is the value of x in the equation $\frac{5(2x - 4)}{3} + 9 = 14$?

(1) 1.9

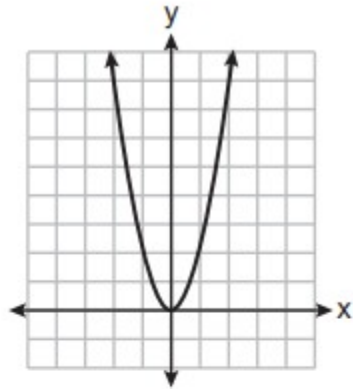
(3) 5.3

(2) 3.5

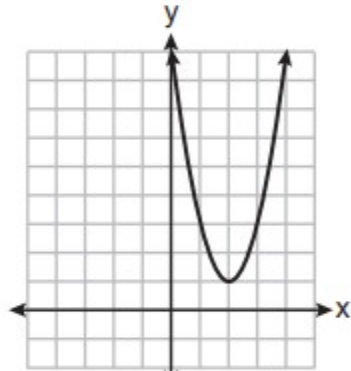
(4) 8.9

5.

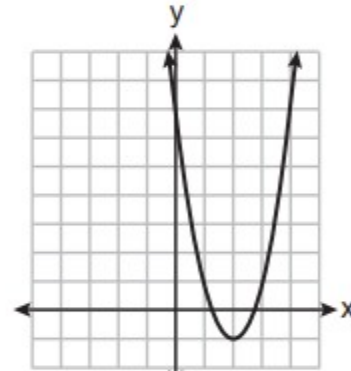
The graph of $y = f(x)$ is shown below.



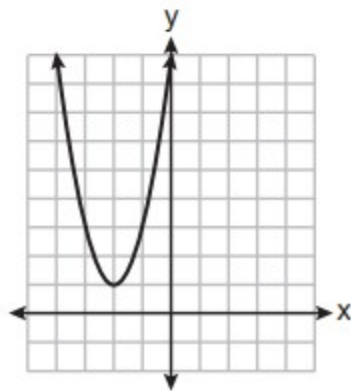
Which graph represents $y = f(x - 2) + 1$?



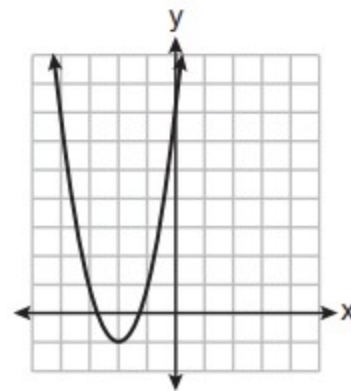
(1)



(3)



(2)



(4)

6.

The length of a rectangular flat-screen television is six inches less than twice its width, x . If the area of the television screen is 1100 square inches, which equation can be used to determine the width, in inches?

(1) $x(2x - 6) = 1100$

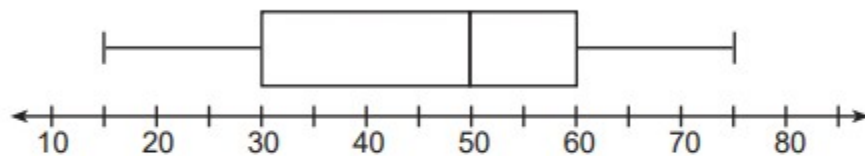
(3) $2x + 2(2x - 6) = 1100$

(2) $x(6 - 2x) = 1100$

(4) $2x + 2(6 - 2x) = 1100$

7.

A box plot is shown below.



Which number represents the third quartile?

(1) 30

(3) 60

(2) 50

(4) 75

8.

What is the product of $(2x + 7)$ and $(x - 3)$?

(1) $2x^2 - 21$

(3) $2x^2 + 4x - 21$

(2) $2x^2 + x - 21$

(4) $2x^2 + 13x - 21$

9.

What is the degree of the polynomial $2x + x^3 + 5x^2$?

(1) 1

(3) 3

(2) 2

(4) 4

10.

What is the solution to $-3(x - 6) > 2x - 2$?

(1) $x > 4$

(3) $x > -16$

(2) $x < 4$

(4) $x < -16$

Bonus

11.

The quadratic function $y = k(x)$ is graphed in the xy -coordinate plane and has its vertex at $(-2, 0)$. Which could be the equation of k ?

A. $k(x) = (x - 4)^2$

B. $k(x) = (x - 2)^2$

C. $k(x) = (x + 2)^2$

D. $k(x) = (x + 4)^2$