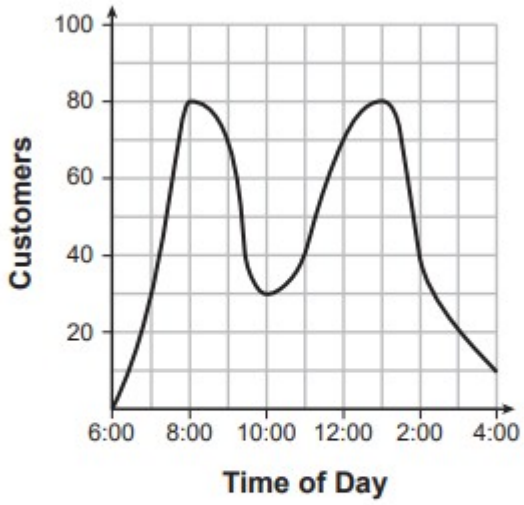
Algebra 1 Quick Quiz
September 18, 2023
Name.....Period.....…

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 $y = x^3 - 2x$?

(1) $(-3,-21)$

(2) $(-2,10)$

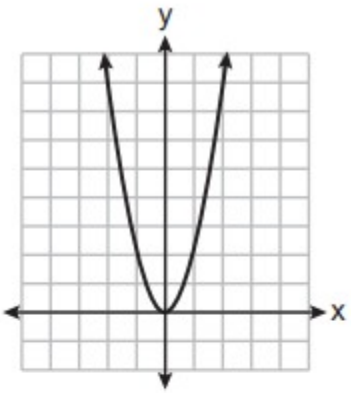
(3) $(1,1)$

(4) $(4,2)$

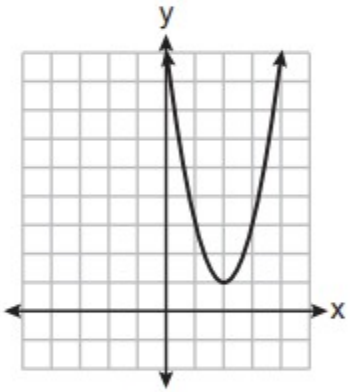
4. What is the value of x in the equation $\frac{5(2x-4)}{3}+9=14$?

(1) 1.9
(2) 3.5
(3) 5.3
(4) 8.9

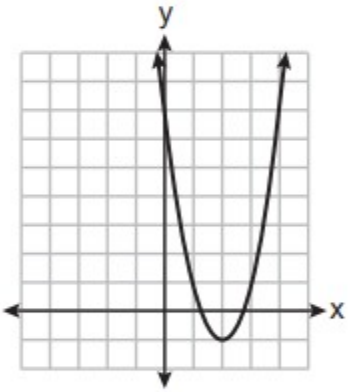
5. The graph of $y=f(x)$ is shown below.



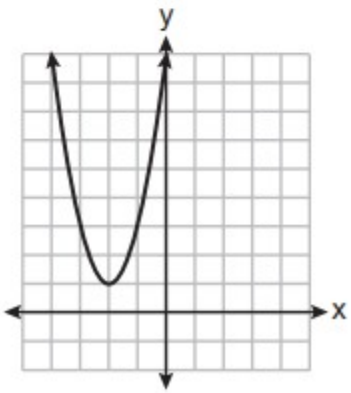
Which graph represents $y=f(x-2)+1$?



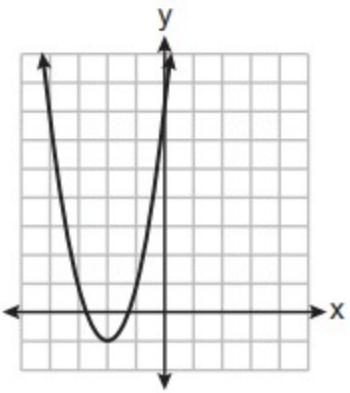
(1)



(3)



(2)

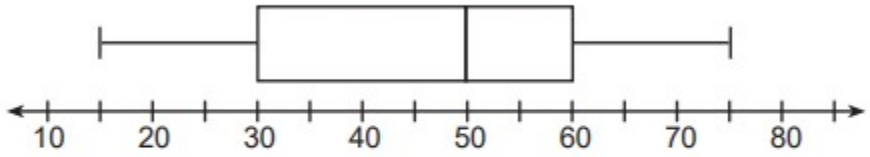


(4)

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) $x(2x - 6) = 1100$
(2) $x(6 - 2x) = 1100$
(3) $2x + 2(2x - 6) = 1100$
(4) $2x + 2(6 - 2x) = 1100$

7. A box plot is shown below.



Which number represents the third quartile?

(1) 30
(2) 50
(3) 60
(4) 75

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

(1) $2x^2 - 21$
(2) $2x^2 + x - 21$
(3) $2x^2 + 4x - 21$
(4) $2x^2 + 13x - 21$

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

(1) 1
(2) 2
(3) 3
(4) 4

10.

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

(1) $x > 4$

(2) $x < 4$

(3) $x > -16$

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