

$$\frac{1}{2}y = 4$$

$$x - \frac{1}{2}y = 2$$

The system of equations above has solution  $(x, y)$ . What is the value of  $x$  ?

A. 3

B.  $\frac{7}{2}$

C. 4

D. 6

$$y = 3x$$

$$2x + y = 12$$

The solution to the given system of equations is  $(x, y)$ . What is the value of  $5x$ ?

A. 24

B. 15

C. 12

D. 5

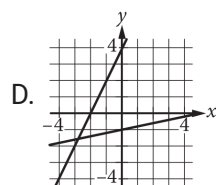
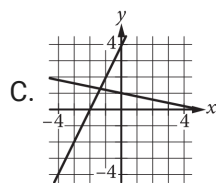
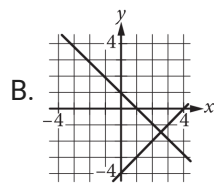
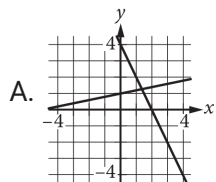
A group of 202 people went on an overnight camping trip, taking 60 tents with them. Some of the tents held 2 people each, and the rest held 4 people each. Assuming all the tents were filled to capacity and every person got to sleep in a tent, exactly how many of the tents were 2-person tents?

- A. 30
- B. 20
- C. 19
- D. 18

$$x + 5y = 5$$

$$2x - y = -4$$

Which of the following graphs in the  $xy$ -plane could be used to solve the system of equations above?



$$y = -\frac{1}{9}x$$

$$y = \frac{1}{2}x$$

The solution to the given system of equations is  $(x, y)$ . What is the value of  $x$ ?

- A.  $-9$
- B.  $-7$
- C.  $0$
- D.  $2$

A bus traveled on the highway and on local roads to complete a trip of **160 miles**. The trip took **4 hours**. The bus traveled at an average speed of **55 miles per hour (mph)** on the highway and an average speed of **25 mph** on local roads. If  $x$  is the time, in hours, the bus traveled on the highway and  $y$  is the time, in hours, it traveled on local roads, which system of equations represents this situation?

A.  $55x + 25y = 4$

$$x + y = 160$$

B.  $55x + 25y = 160$

$$x + y = 4$$

C.  $25x + 55y = 4$

$$x + y = 160$$

D.  $25x + 55y = 160$

$$x + y = 4$$

$$x + 3 = -2y + 5$$

$$x - 3 = 2y + 7$$

The solution to the given system of equations is  $(x, y)$ . What is the value of  $2x$ ?

A.  $-2$

B.  $6$

C.  $12$

D.  $24$

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$$4x + 5y = 100$$

$$5x + 4y = 62$$

If the system of equations above has solution  $(x, y)$ ,  
what is the value of  $x + y$  ?

- A. 0
- B. 9
- C. 18
- D. 38



In the  $xy$ -plane, the graph of  $y = x + 3$  intersects the graph of  $y = 2x - 6$  at the point  $(a, b)$ . What is the value of  $a$ ?

- A. 3
- B. 6
- C. 9
- D. 12

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The score on a trivia game is obtained by subtracting the number of incorrect answers from twice the number of correct answers. If a player answered 40 questions and obtained a score of 50, how many questions did the player answer correctly?

$$x + 2y = 6$$

$$x - 2y = 4$$

The solution to the given system of equations is  $(x, y)$ . What is the value of  $x$ ?

A. 2.5

B. 5

C. 6

D. 10

$$-15x + 25y = 65$$

One of the two equations in a system of linear equations is given. The system has infinitely many solutions. Which of the following could be the second equation in the system?

- A.  $12x + 20y = 52$
- B.  $12x + 20y = -52$
- C.  $-12x + 20y = 52$
- D.  $-12x + 20y = -52$

Which of the following systems of linear equations has no solution?

A.  $y = 6x + 3$   
 $y = 6x + 9$

B.  $y = 10$   
 $y = 10x + 10$

C.  $y = 14x + 14$   
 $y = 10x + 14$

D.  $x = 3$   
 $y = 10$

$$y = 2x - 3$$

$$3y = 5x$$

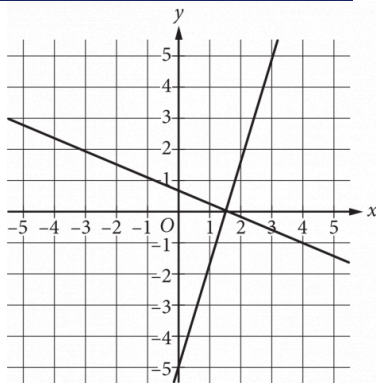
In the solution to the system of equations above, what is the value of  $y$ ?

A.  $-15$

B.  $-9$

C.  $9$

D.  $15$



Which of the following systems of equations has the same solution as the system of equations graphed above?

A.  $y = 0$   
 $x = \frac{3}{2}$

B.  $y = \frac{3}{2}$   
 $x = 0$

C.  $y = 0$   
 $x = 1$

D.  $y = 1$   
 $x = 0$

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$$5x + 3y = 38$$

$$x + 3y = 10$$

In the solution  $(x, y)$  to the system of equations above, what is the value of  $x$  ?



$$x + 3y = 29$$

$$3y = 11$$

The solution to the given system of equations is  $(x, y)$ . What is the value of  $x$ ?