

TEST NAME: Math 8 online Feb 28
TEST ID: 2919207
GRADE: 08 - Eighth Grade - 09 - Ninth Grade
SUBJECT: Mathematics
TEST CATEGORY: My Classroom

Student: _____

Class: _____

Date: _____

1. How many solutions does the equation $3x - 2x + 4 = 2 + x + 2$ have?

- A. no solution
- B. one solution
- C. two solutions
- D. infinitely many solutions

2. Which equation has an infinite number of solutions?

- A. $7(1 - 4x) + 3x = 7$
- B. $5(2 - 4x) + 4x = 10$
- C. $8(2 - 2x) + 16x = 9$
- D. $6(3 - 2x) + 12x = 18$

3. Which equation has infinitely many solutions?

- A. $8x = 8(x - 1) + 1$
- B. $2x - 5 = 2(x - 5)$
- C. $22 - 6x = 2(3x - 11)$
- D. $3(5x - 4) - 8x = 7x - 12$

4. How many solutions does the equation $5(x - 2) = 8 + 5x$ have?

- A. no solution
- B. one solution
- C. two solutions
- D. infinitely many solutions

5. Which of these equations does NOT have any solutions?

- A. $10 - 3x - 1 = 7 + 3x + 2$
- B. $12 - 7x - 10 = x - 8x + 2$
- C. $13 - 4x + 2 = 3x - 7x + 2$
- D. $15 - 2x - 2 = 10x + 3x + 2$

6. **What is the value of y in the equation below?**

$$4y + 8 = 6y + 2$$

- A. $\frac{3}{5}$
- B. 1
- C. 3
- D. 5

7. Four students each wrote an equation.

Student	Equation
Beto	$3m = 3m + 5$
Lila	$9r + 4 = 4 + 9r$
Mark	$6 - n = -n + 2$
Wanda	$8u - 2 = 2u + 8$

Which two students wrote equations that have no solution?

- A. Beto and Wanda
- B. Beto and Mark
- C. Lila and Wanda
- D. Lila and Mark

8. Which equation has an infinite number of solutions?

- A. $12 = 3y$
- B. $8q + 5 = 21$
- C. $2x + 7 - 2x = 7$
- D. $4p - 4 = 4p + 4$

9. Which equation has no solution?

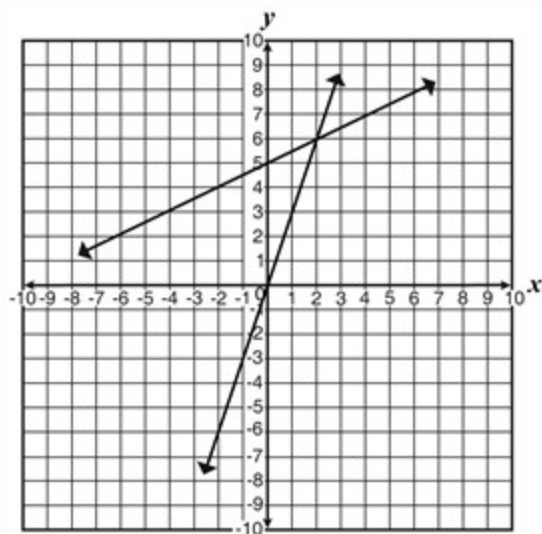
- A. $4x - 9 = -9$
- B. $3x + 2 = 17$
- C. $2x + 4 = 2x + 6$
- D. $x + 3x = 8x - 4x$

10. Which equation has only one solution?

- A. $6r = 5r + r$
- B. $4m + 5 = 25$
- C. $8v + 11 = 8v + 11$
- D. $2 - 3p = -3p + 5$

11. A linear system of equations is graphed below.

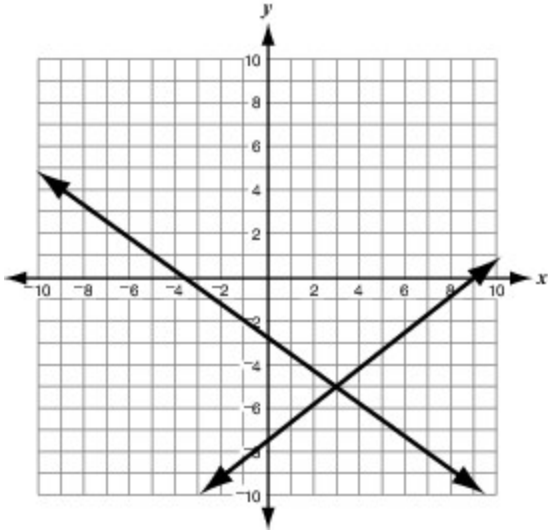
$$\begin{cases} y = 3x \\ y = \frac{1}{2}x + 5 \end{cases}$$



Which ordered pair is the solution to the system?

- A. (0, 0)
- B. (0, 5)
- C. (2, 6)
- D. (6, 2)

12. Which ordered pair is the solution of the linear system graphed below?



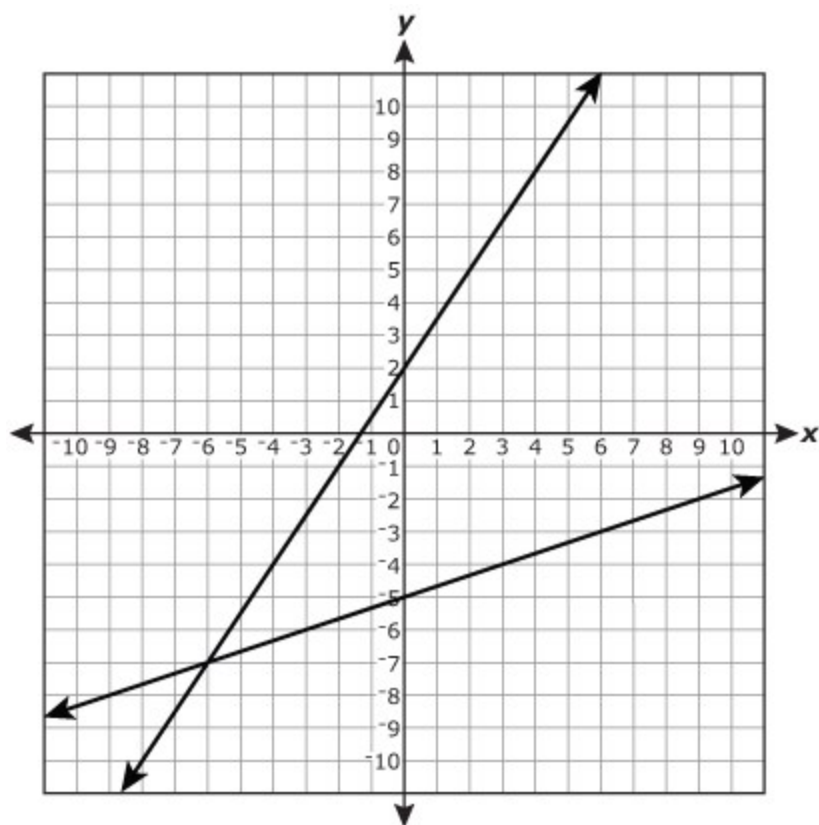
- A. $(-3.5, 0)$
- B. $(0, -7.5)$
- C. $(3, -5)$
- D. $(9, 0)$

13. At which point do the graphs of the equations below intersect?

$$\begin{cases} 9x + y = 4 \\ -6x + 2y = -4 \end{cases}$$

- A. $(-0.5, 8.5)$
- B. $(0, 4)$
- C. $(0.5, -0.5)$
- D. $(2, -14)$

14. Danisha represented a system of linear equations with the graph below.



What is the solution to the system of equations?

- A. $(-7, -6)$
- B. $(-6, -7)$
- C. $(0, 2)$
- D. $(2, -5)$

15. The equations below represent the total amount charged, y , by two different plumbers as a function of the number of hours worked, x .

Plumber A: $y = 20x + 60$

Plumber B: $y = 40x$

The graphs of these functions cross at the point (3, 120). What does the point (3, 120) signify?

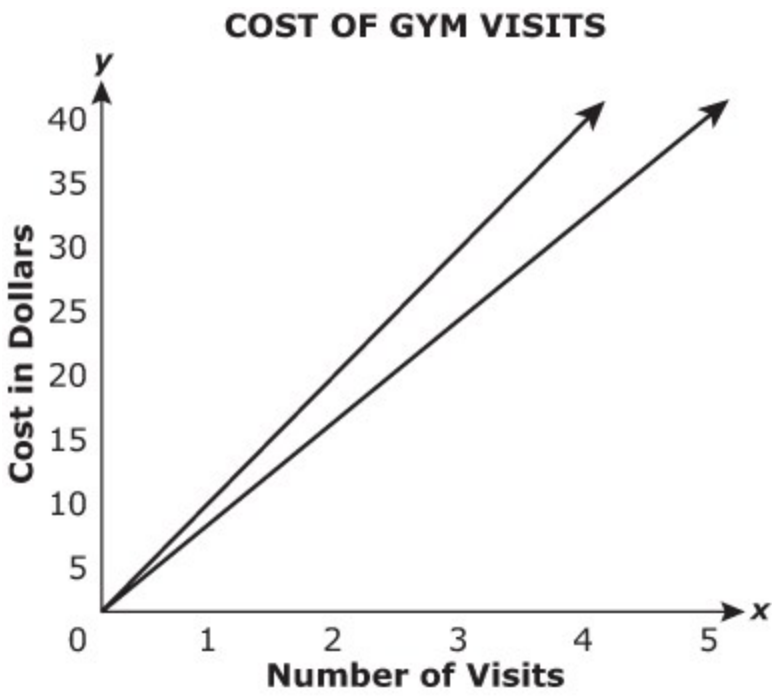
- A. The point (3, 120) is the slope of the system of equations.
 - B. The point (3, 120) is when the plumbers worked 120 hours.
 - C. The point (3, 120) is the y -intercept of the system of equations.
 - D. The point (3, 120) is the solution for the system of equations.
16. Jenny went to an office supply store and spent \$21 (not including tax) on a total of 7 items (notepads and staplers). The cost of one notepad is \$1, and the cost of one stapler is \$8. How many notepads did Jenny buy?
- A. 5
 - B. 4
 - C. 3
 - D. 2
17. Ethan and Emily went shopping at a local farmers' market. They both bought the same type of apples and potatoes at the same stand. Ethan paid \$25.50 for 8 pounds of apples and 5 pounds of potatoes. Emily paid \$18.50 to buy 3 pounds of apples and 10 pounds of potatoes. Which ordered pair represents the price per pound of apples, x , and potatoes, y ?
- A. (3.66, 0.76)
 - B. (2.50, 1.10)
 - C. (1.71, 2.36)
 - D. (0.62, 4.11)

18. What is the y value of the solution to the system of equations shown below?

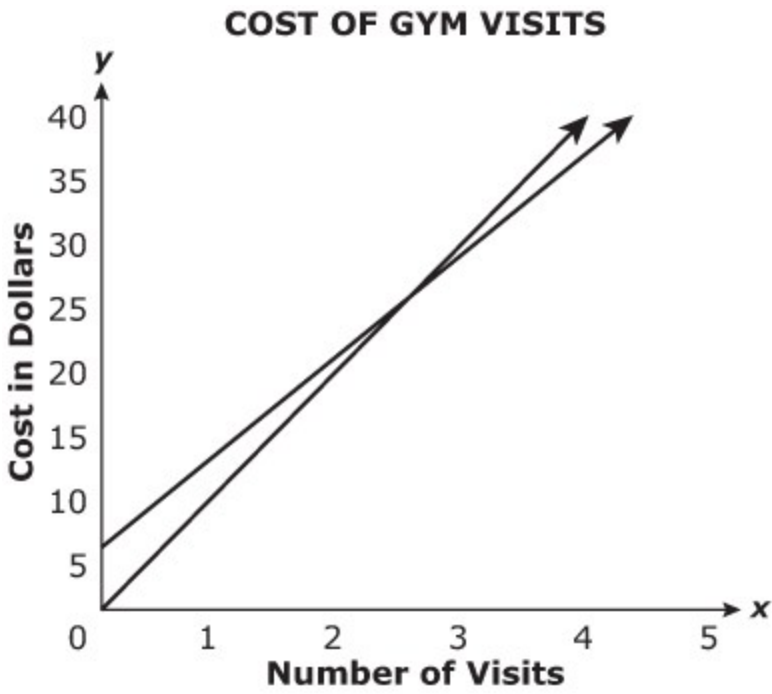
$$\begin{cases} 4x + 3y = 10 \\ 3x - 2y = 5 \end{cases}$$

- A. $\frac{5}{2}$
- B. $\frac{35}{17}$
- C. $\frac{10}{3}$
- D. $\frac{10}{17}$
19. A medium pizza at Benny's Pizza costs \$13.60 plus \$2.50 for each topping. At Ricco's Pizza, a medium pizza costs \$14.60 plus \$2 for each topping. Which statement is **true** regarding the price of a medium pizza at the two pizza restaurants?
- A. A pizza with one topping will cost more at Benny's Pizza.
- B. A pizza with two toppings will cost more at Ricco's Pizza.
- C. A pizza with three toppings will cost less at Benny's Pizza.
- D. A pizza with four toppings will cost less at Ricco's Pizza.
20. Raul is choosing from two plans at his gym. He can either pay a set price for each visit, or he can buy a membership, which would have a lower price per visit in addition to a membership fee. Which model could be used to determine which plan would be less expensive based on the number of visits he makes?

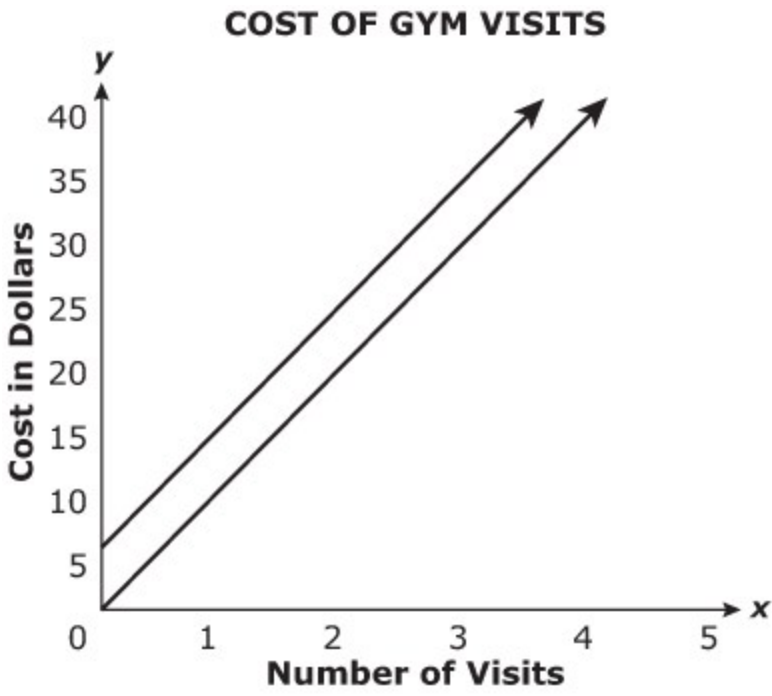
A.



B.



C.



D.

