

TEST NAME: **EE.8 New**
TEST ID: **734813**
GRADE: **08**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Assessment**

Student: _____

Class: _____

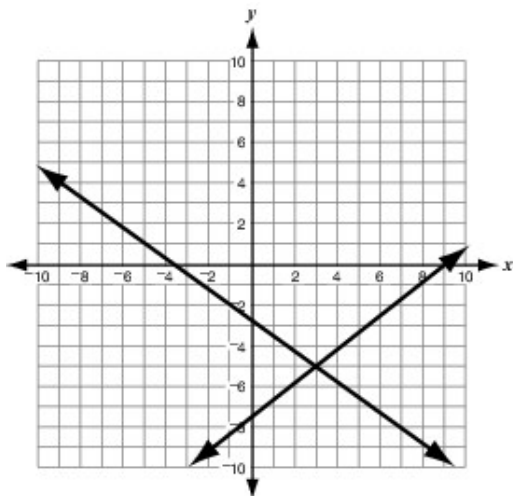
Date: _____

1. At which point would the graphs of the equations below intersect?

$$\begin{cases} 3x - 4y = -2 \\ -6x + 5y = 7 \end{cases}$$

- A. $(-2, -1)$
- B. $(2, -1)$
- C. $(-1, 2)$
- D. $(-1, -2)$

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



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

3. 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. $(2, -14)$

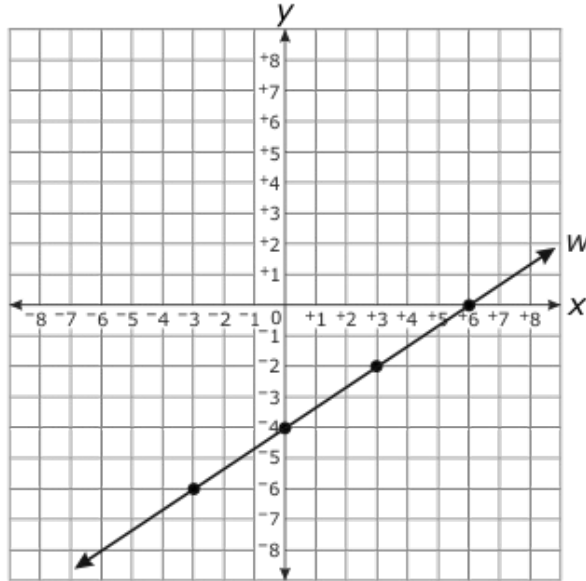
4. A system of equations is shown below.

$$\begin{aligned} y &= 4x \\ y &= x - 6 \end{aligned}$$

What is the x -value in the solution to the system?

- A. -8
- B. -2
- C. 2
- D. 8

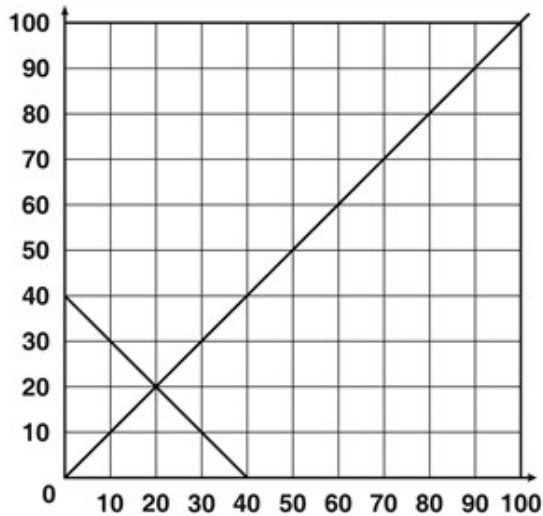
5. Line w is graphed below. Line z will be graphed below. Line z goes through the points $(2, 1)$ and $(4, -5)$.



What is the point of intersection of lines w and z ?

- A. $(6, 0)$
- B. $(3, -2)$
- C. $(0, -4)$

6. A system of linear equations is graphed below.



Which coordinate point represents the solution?

- A. $(2, 2)$
- B. $(0, 40)$
- C. $(40, 0)$
- D. $(20, 20)$

7. Line p passes through the points $(-4, -2)$ and $(0, 0)$. Line r passes through the points $(-1, -8)$ and $(2, -2)$. What is the point of intersection of lines p and r ?
- A. $(1, 4)$
B. $(3, 0)$
C. $(3, 1)$
D. $(4, 2)$
8. A system of equations is shown below.

$$y = 2x$$

$$y = \frac{1}{2}x - 3$$

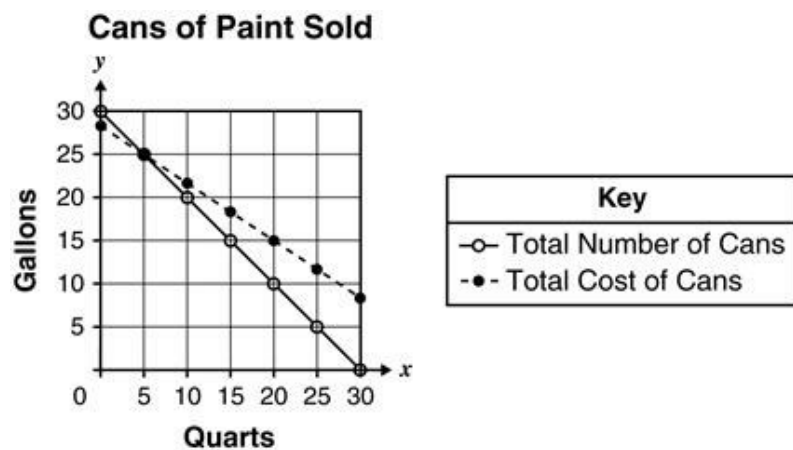
What is the x -value in the solution to the system?

- A. -4
B. -3
C. -2
D. -1
9. Line s goes through the points $(-2, -6)$ and $(4, 2)$. Line t goes through the points $(-2, 4)$ and $(4, -8)$. What is the point of intersection of lines s and t ?
- A. $(2, -1)$
B. $(1, -2)$
C. $(-1, 2)$
D. $(-2, 1)$

10. Terry sold 30 cans of paint at a total cost of \$425. A can of paint holding one quart cost \$10 each. A can of paint holding one gallon cost \$15 each. The equations and graph below can be used to determine the number of cans of paint Terry sold, where x represents the number of quarts of paint, and y represents the number of gallons of paint.

Number of cans: $x + y = 30$

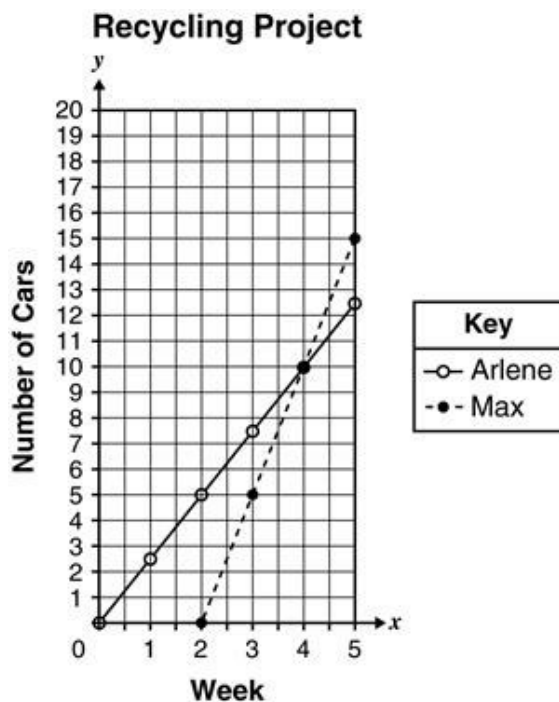
Total cost of cans: $10x + 15y = 425$



How many quart and gallon cans of paint did Terry sell?

- A. 5 quarts, 25 gallons
- B. 15 quarts, 15 gallons
- C. 25 quarts, 5 gallons
- D. 42 quarts, 28 gallons

11. For a recycling project Max and Arlene collected aluminum cans over 5 weeks. The graph below shows the total number of cans each collected over the 5-week project.



In which week did Max and Arlene have the same number of cans?

- A. Week 2
 - B. Week 4
 - C. Week 10
 - D. Week 14
12. Look at the system of equations below.

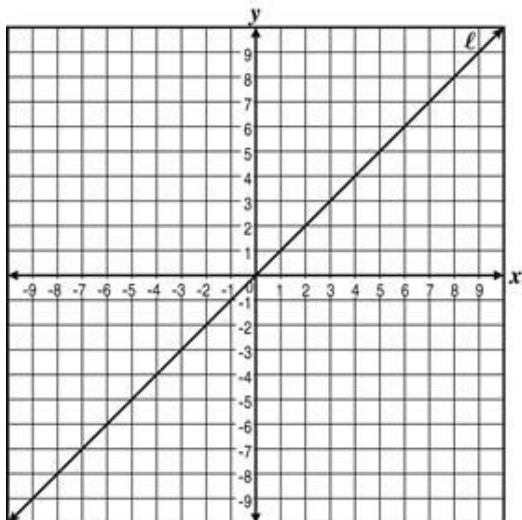
$$x - 2y = 4$$

$$y = 4 - x$$

Trevor stated that $(4, 0)$ is the solution to the system of equations. Joey stated that $(0, -2)$ is the solution to the system of equations. Which conclusion is true?

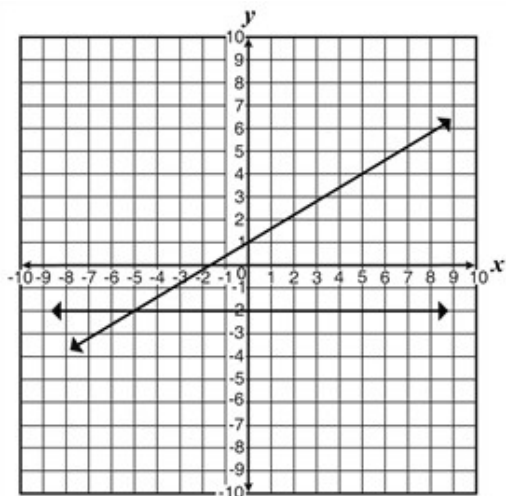
- A. Joey is correct because the point $(0, -2)$ satisfies both equations.
- B. Trevor is correct because the point $(4, 0)$ satisfies both equations.
- C. Trevor is correct because both equations have the same y -intercept.
- D. Joey is correct because both equations have a y -value of 0 when x is -2 .

13. In the graph shown, which of the following values represents the x -value where line l and the line $y = 2x - 1$ intersect?



- A. -1
B. 0
C. 1
D. 2
14. Doris and Miguel are saving money weekly but at different rates. Doris and Miguel both write and graph equations to represent their savings. In both equations y represents the amount in savings account after x number of weeks. When the equations are graphed, the lines intersect at the point $(6, 114)$. Which statement **best** explains the point of intersection?
- A. Miguel will have \$114 more than Doris after 6 weeks.
B. Doris will have \$114 more than Miguel after 6 weeks.
C. Doris and Miguel will have the same amount after 6 weeks.
D. Doris and Miguel will have the same amount after 114 weeks.

15. The graphs $y = \frac{3}{5}x + 1$ and $y = -2$ are shown in the coordinate plane below.

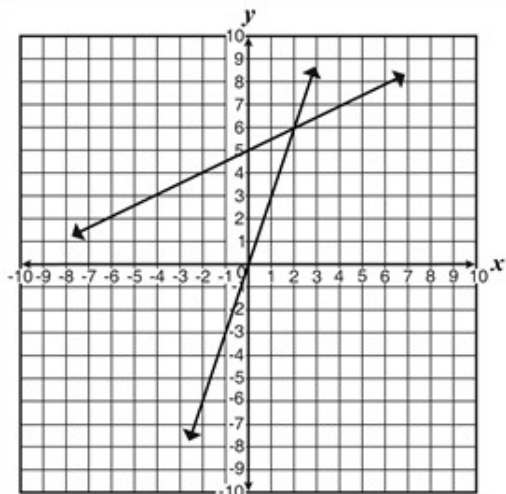


Which coordinate point satisfies both equations?

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

16. A linear system of equations is graphed below.

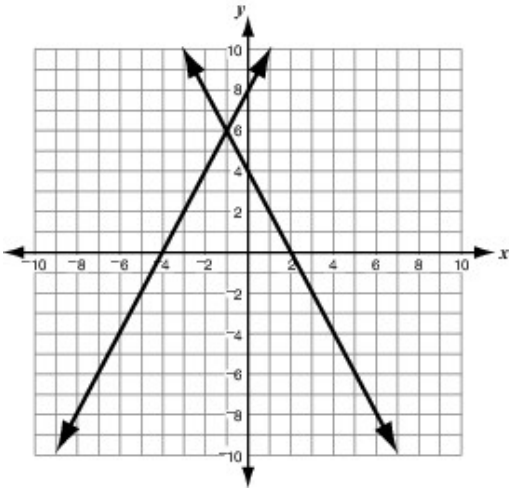
$$\begin{cases} y = 3x \\ y = \frac{1}{2}x + 5 \end{cases}$$



Which ordered pair is the solution to the system?

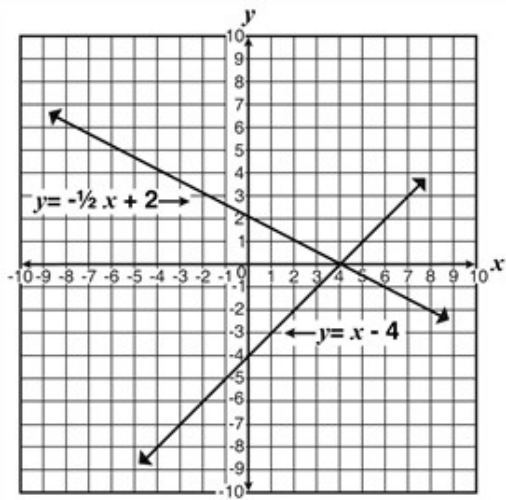
- A. $(0, 0)$
- B. $(0, 5)$
- C. $(2, 6)$
- D. $(6, 2)$

17. Line w is represented by the equation $y = x + 3$. Line z goes through the points $(1, 0)$ and $(-3, 4)$. What is the point of intersection for lines w and z ?
- A. $(0, 3)$
B. $(0, 1)$
C. $(-1, 2)$
18. What appears to be the solution to the system of equations shown in the graph below?



- A. $(-4, 2)$
B. $(-1, 6)$
C. $(0, 4)$
D. $(4, 8)$

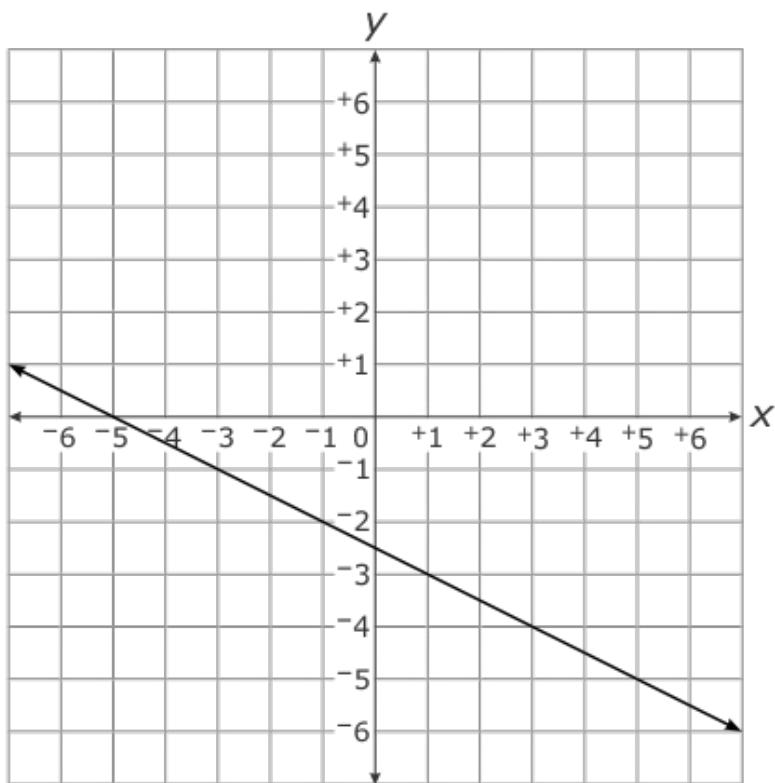
19. A system of linear equations is graphed below.



Which coordinate point represents the solution?

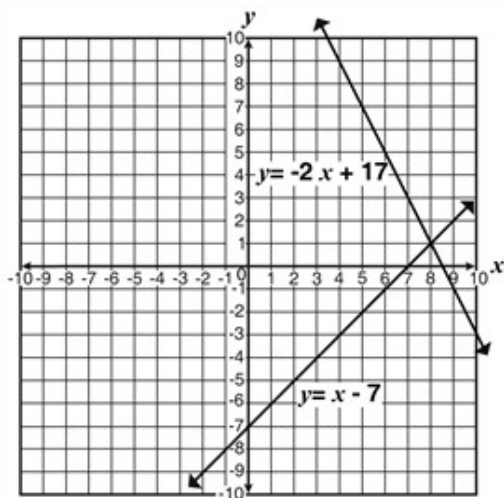
- A. (0, 4)
- B. (4, 0)
- C. (0, -4)
- D. (4, -4)

20. Which equation intersects the line graphed below when $x = 1$?



- A. $y = -x - 4$
- B. $y = -x + 4$
- C. $y = x - 4$
- D. $y = x + 4$

21. The linear equations graphed in the coordinate plane below intersect.



Which coordinate point is the solution?

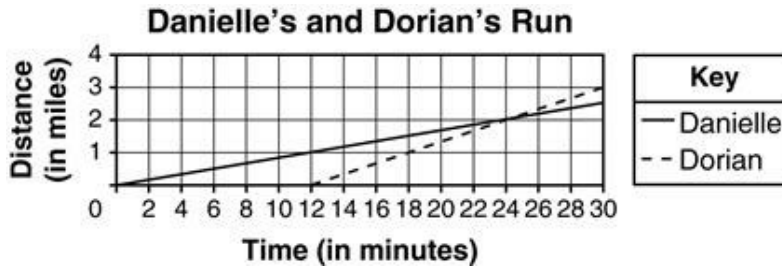
- A. $(0, -7)$
- B. $(1, 8)$
- C. $(7, 0)$
- D. $(8, 1)$

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

$$\begin{cases} -8x + 2y = 4 \\ 6x + 3y = -9 \end{cases}$$

- A. $\left(-\frac{5}{6}, -\frac{4}{3}\right)$
- B. $\left(-\frac{1}{2}, -\frac{3}{2}\right)$
- C. $\left(\frac{1}{2}, 4\right)$
- D. $\left(\frac{5}{6}, \frac{16}{3}\right)$

23. The graph below shows the relationship between the times and distances Danielle and Dorian ran along the same trail. Danielle ran 1 mile every 12 minutes. Dorian started running once Danielle had completed 1 mile, and then he ran 1 mile every 6 minutes.

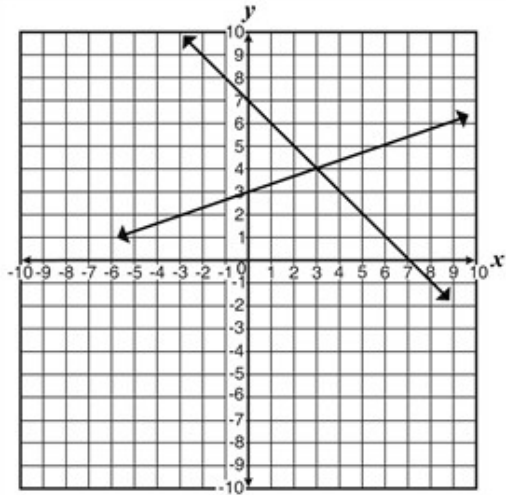


How far had Danielle run when Dorian caught up to her?

- A. 1 mile
 - B. 2 miles
 - C. 12 miles
 - D. 24 miles
24. Line w goes through the points $(1, 3)$ and $(-2, -3)$. Line z goes through the points $(-4, 0)$ and $(2, -2)$. What is the point of intersection of lines w and z ?
- A. $(0, 1)$
 - B. $(0, -1)$
 - C. $(-1, -1)$
 - D. $(-2, -1)$

25. A pair of linear equations is graphed below.

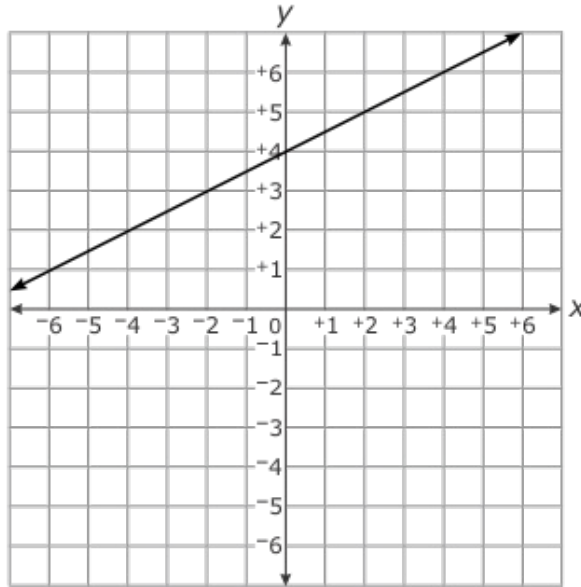
$$\begin{cases} y = -x + 7 \\ y = \frac{1}{3}x + 3 \end{cases}$$



Which values for x and y would satisfy both of these equations?

- A. $x = 0, y = 3$
- B. $x = 3, y = 4$
- C. $x = 4, y = 3$
- D. $x = 3, y = 7$

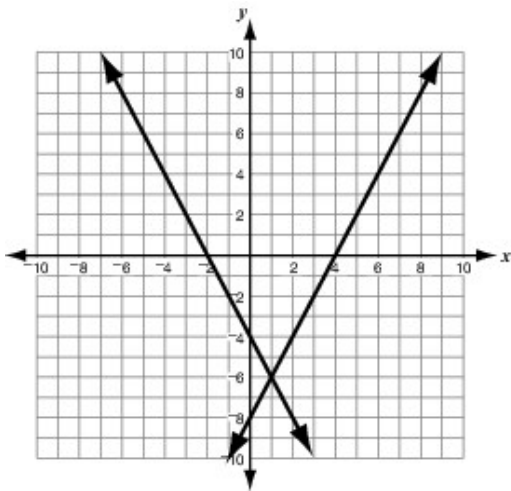
26. The line of the equation $y = -4x - 5$ will be graphed on the coordinate plane, intersecting the line below.



What will be the point of intersection of the two lines?

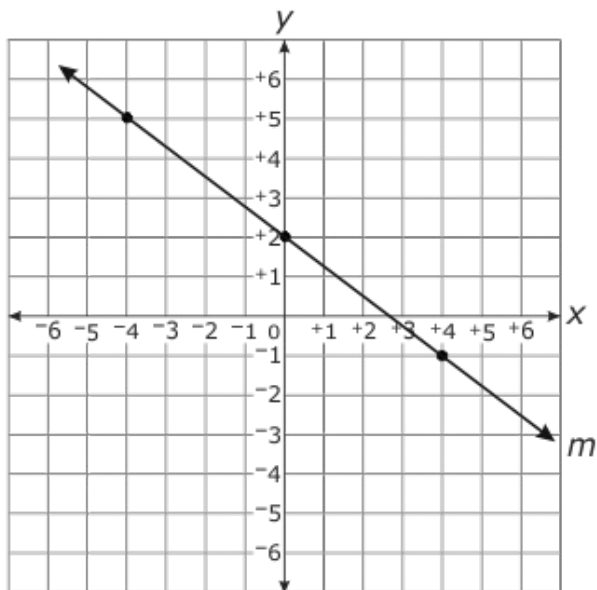
- A. $(0, 4)$
 - B. $(0, -5)$
 - C. $(-2, 3)$
 - D. $(3, -2)$
27. At what point do the graphs of the lines $y = 9x + 2$ and $y = -3x + 12$ intersect?
- A. $\left(-\frac{5}{3}, -13\right)$
 - B. $\left(-\frac{7}{6}, 15\frac{1}{2}\right)$
 - C. $\left(\frac{5}{6}, 9\frac{1}{2}\right)$
 - D. $\left(\frac{5}{3}, 17\right)$

28. What is the solution to the system of equations shown in the graph below?



- A. $(-6, 1)$
- B. $(-2, 4)$
- C. $(1, -6)$
- D. $(-4, -8)$
29. Line j goes through the points $(-1, 2)$ and $(2, -1)$. Line k goes through the points $(5, 2)$ and $(4, 0)$. What is the point of intersection for line j and line k ?
- A. $(2, -1)$
- B. $(3, -2)$
- C. $(4, 0)$
- D. $(6, -5)$

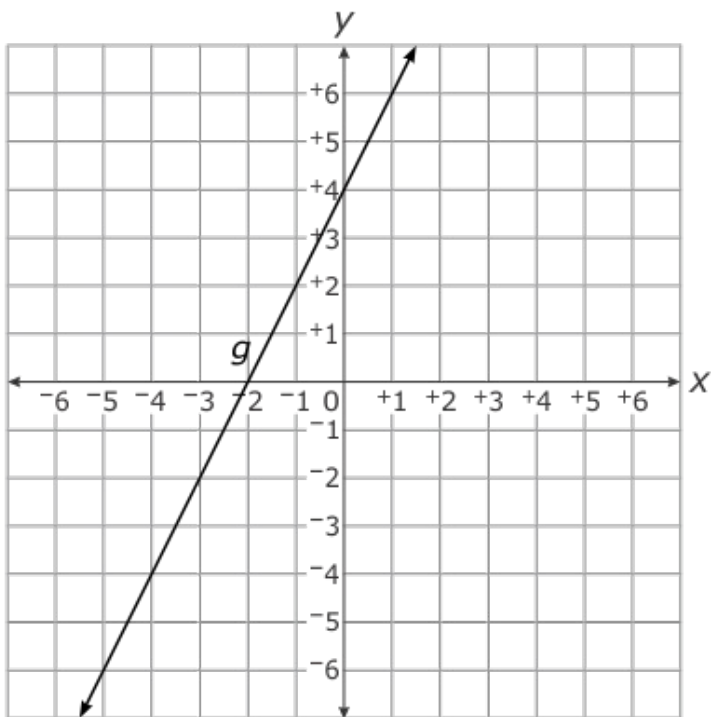
30. Line m is graphed below. Line j will be graphed below. Line j will go through the points $(3, 2)$ and $(5, -4)$.



What is the point of intersection of lines m and j ?

- A. $(0, 2)$
- B. $(3, 0)$
- C. $(4, -1)$

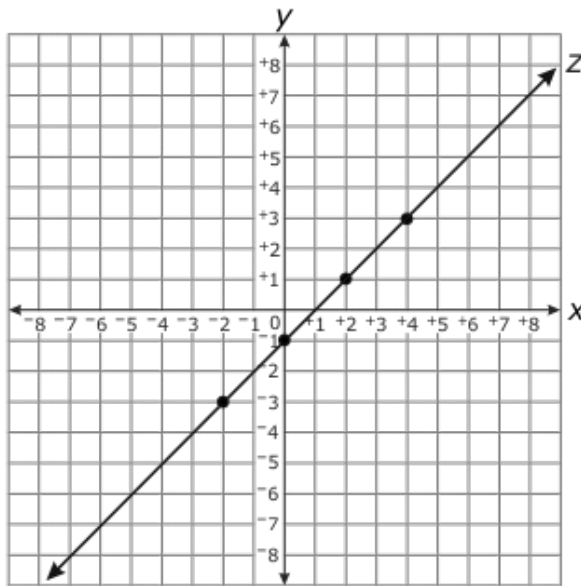
31. Line g is on the graph below. Line h , represented by the equation $y = \frac{2}{3}x$, will be graphed below.



What will be the point of intersection of lines g and h ?

- A. $(-3, -2)$
- B. $(-2, -3)$
- C. $(2, -3)$
- D. $(3, -2)$

32. Line z is graphed below. Line t will be graphed below. The equation for line t is $y = -2x + 8$.



What is the point of intersection of lines z and t ?

- A. (3, 2)
 - B. (4, 3)
 - C. (6, 5)
33. A system of equations is shown below.

$$2x - y = 8$$

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

What is the value of y in the solution to the system?

- A. 4
- B. 2
- C. -2
- D. -8

34. Which ordered pair is a solution of the system of linear equations listed below?

$$\begin{aligned}2x - 3y &= 3 \\4x - 2y &= 10\end{aligned}$$

- A. (2, -1)
- B. (3, 1)
- C. (6, -5)
- D. (6, 3)

35. Line j goes through the points (3, 2) and (-3, -2). Line k goes through the points (-2, 2) and (2, -2). What is the point of intersection for lines j and k ?

- A. (0, 0)
- B. (0, 1)
- C. (0, -1)

36. The tables below show five points on the lines of two different linear equations.

Line 1

x	y
1	3
2	5
3	7
4	9
5	11

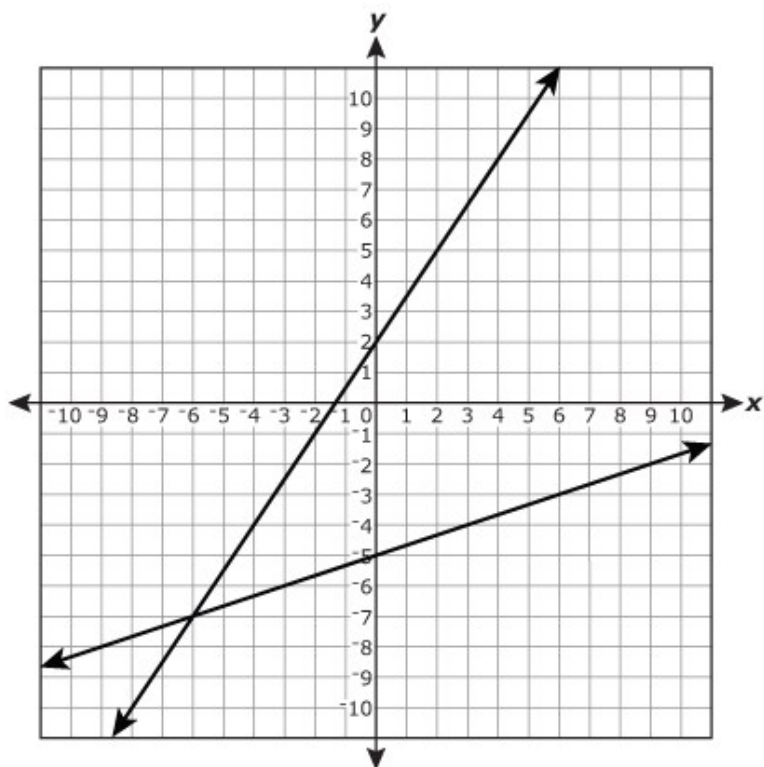
Line 2

x	y
1	15
2	13
3	11
4	9
5	7

Jenna concludes that (4, 9) is the solution to the system of these two equations. Which of the following justifies her conclusion?

- A. The point (4, 9) appears in both tables.
- B. Only these two lines contain the point (4, 9).
- C. These two lines have the same rate of change.
- D. These two lines are perpendicular to each other.

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

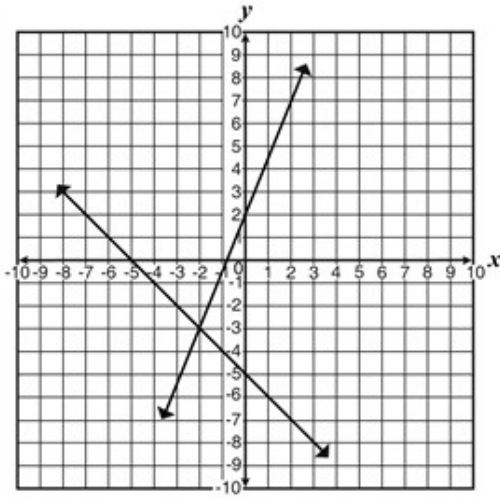


What is the solution to the system of equations?

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

38. The graph of a pair of linear equations is shown in the coordinate plane below.

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



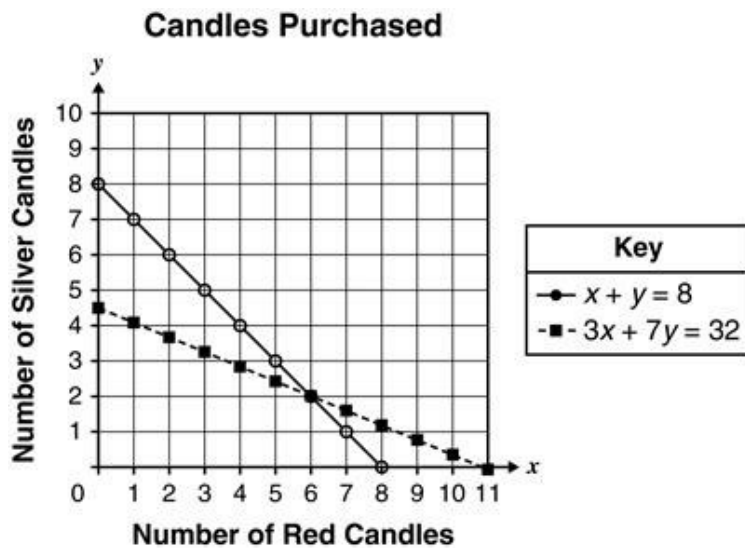
Which value is the x -coordinate of the solution?

- A. -5
- B. -3
- C. -2
- D. 0

39. Sophie purchased 8 candles at a total cost of \$32. The red candles cost \$3 each and the silver candles cost \$7 each. The equations and graph below can be used to determine the number of each type of candle Sophie purchased, where x represents the number of red candles and y represents the number of silver candles.

Number of candles purchased: $x + y = 8$

Total cost of candles: $3x + 7y = 32$



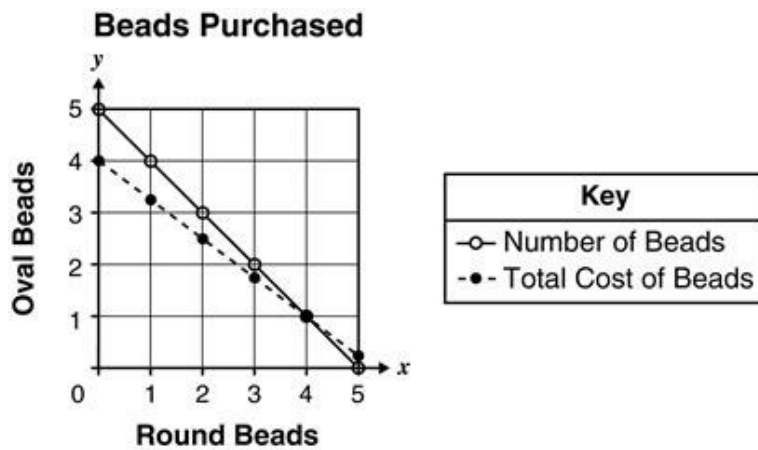
What is the number of red candles and silver candles Sophie purchased?

- A. 2 red candles, 6 silver candles
- B. 3 red candles, 5 silver candles
- C. 6 red candles, 2 silver candles
- D. 7 red candles, 1 silver candle

40. Kelsey purchased 5 beads at a total cost of 80 cents. The round beads cost 15 cents each, and the oval beads cost 20 cents each. The equations and graph below can be used to determine the number of each type of bead Kelsey purchased, where x represents the number of round beads and y represents the number of oval beads.

Number of beads: $x + y = 5$

Total cost of beads: $15x + 20y = 80$



What are the numbers of round and oval beads Kelsey purchased?

- A. 1 round bead, 4 oval beads
 - B. 2 round beads, 3 oval beads
 - C. 4 round beads, 1 oval bead
 - D. 5 round beads, 1 oval bead
41. The equations below represent the total amount charged, y , by two different plumbers as a function of the number of hours worked, x .

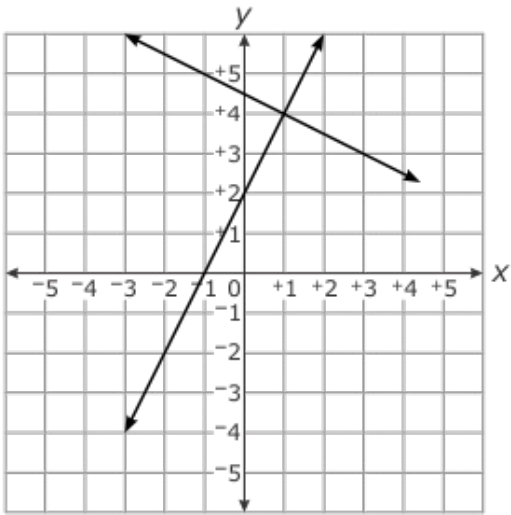
Plumber A: $y = 20x + 60$

Plumber B: $y = 40x$

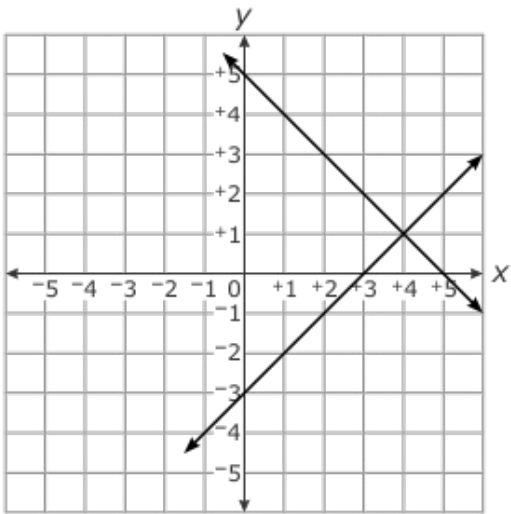
The graphs of these functions cross at the point (3, 120). What does the point (3, 120) signify?

- 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.
42. Which graph shows a system of equations that has a solution of (4, 1)?

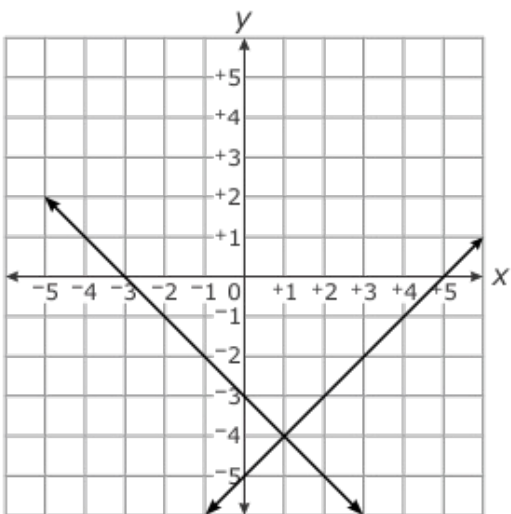
A.



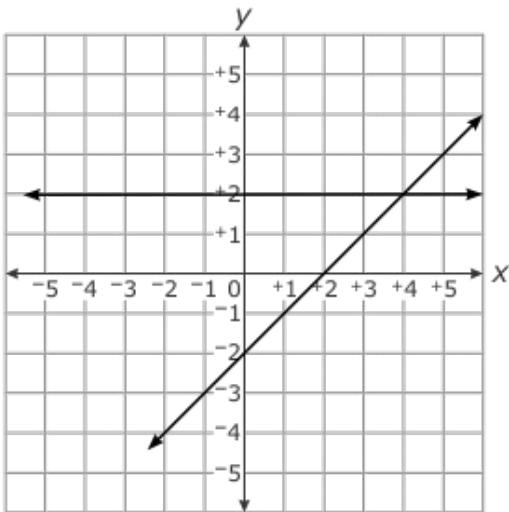
B.



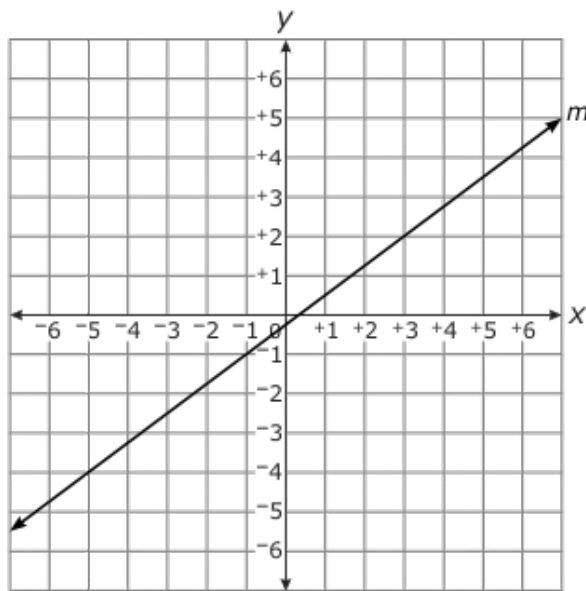
C.



D.



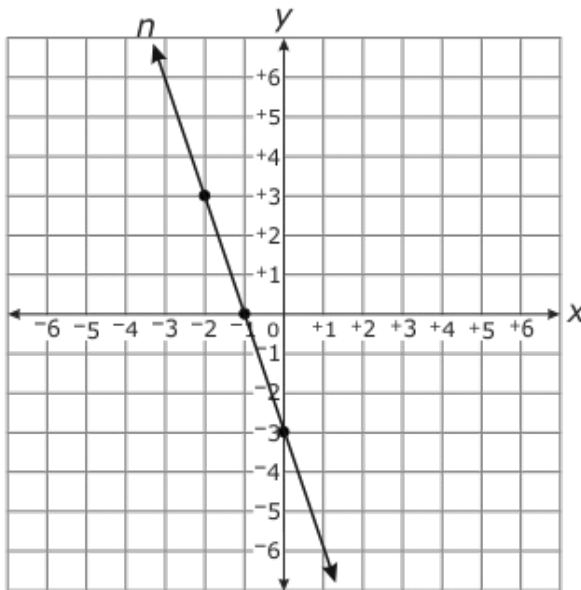
43. Line m is graphed below. The line of the equation $y = \frac{-1}{3}x + 3$ will be graphed with line m .



What will be the point of intersection of the two lines?

- A. (1, 0)
- B. (2, 1)
- C. (2, 3)
- D. (3, 2)

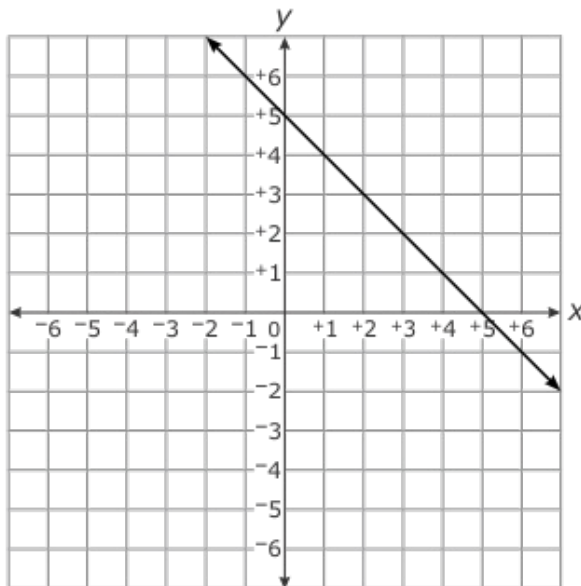
44. Line n is graphed below. Line p will be graphed below. The equation for line p is $y = 2x + 2$.



What is the point of intersection of lines n and p ?

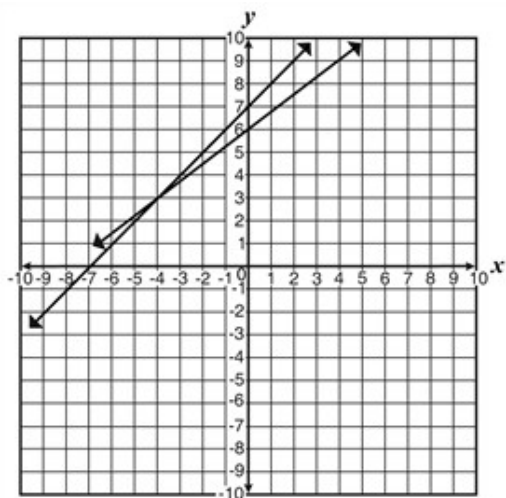
- A. $(-2, 3)$
- B. $(-1, 0)$
- C. $(0, -3)$

45. Which ordered pair would be the point of intersection of the graph below and $y = x + 1$?



- A. $(0, 5)$
- B. $(1, 4)$
- C. $(2, 3)$
- D. $(3, 4)$

46. The pair of linear equations $\begin{cases} y = x + 7 \\ y = \frac{3}{4}x + 6 \end{cases}$ is graphed below.



Which values for x and y will satisfy both linear equations?

- A. $x = 0, y = 7$
 - B. $x = -7, y = 0$
 - C. $x = 3, y = -4$
 - D. $x = -4, y = 3$
- 47.
- 48.
49. A student transformed the system of equations shown below by multiplying the second equation by a constant and then adding the resulting equation to the first equation.

$$x + 4y = 12$$

$$3x - y = 10$$

Which equation could result from these transformations?

- A. $13x = 52$
- B. $-11x = -28$
- C. $11y = 46$
- D. $-13y = 22$

50. What is the solution to this system of equations?

$$4x + y = 6$$

$$x - 2y = 6$$

- A. $(2, -2)$
- B. $(1, 2)$
- C. $(\frac{1}{2}, 4)$
- D. $(-2, 2)$

51. A system of equations is shown below.

$$y = 3x - 2$$

$$y = x$$

What is the solution to the system of equations?

- A. $(0, 0)$
- B. $(1, 1)$
- C. $(2, 2)$

52. A system of equations is shown below.

$$y = 2x - 1$$

$$y = 3x - 5$$

What is the y -value in the solution to the system?

- A. -13
- B. -6
- C. 4
- D. 7

53. 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. $\frac{10}{17}$

54. A system of equations is shown below.

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

What is the solution to the system?

- A. $(-8, -4)$
- B. $(8, 4)$
- C. $(-4, 0)$
- D. $(-4, -4)$
55. A system of equations is shown below.

$$\begin{cases} y = 4x \\ x + y = 5 \end{cases}$$

What is the value of x in the solution to the system?

- A. 0
- B. 1
- C. 4

56. Tony observed the solution to a pair of linear equations graphed in the coordinate plane to be $(-6, -5)$. Which method can be used to verify that $(-6, -5)$ is the correct solution?

- A. $y = x - 1$ $y = \frac{1}{5}x - 7$
 $-6 = -5 - 1$ $-6 = \frac{-1}{5}(-5) - 7$
 $-6 = -6$ $-6 = 1 - 7$
 $-6 = -6$
- B. $y = \frac{3}{5}x - 3$ $y = \frac{-2}{5}x - 8$
 $-6 = \frac{3}{5}(-5) - 3$ $-6 = \frac{-2}{5}(-5) - 8$
 $-6 = -3 - 3$ $-6 = 2 - 8$
 $-6 = -6$ $-6 = -6$
- C. $y = x + 1$ $y = \frac{1}{2}x - 2$
 $-5 = -6 + 1$ $-5 = \frac{1}{2}(-6) - 2$
 $-5 = -5$ $-5 = -3 - 2$
 $-5 = -5$
- D. $y = \frac{1}{3}x - 3$ $y = \frac{-1}{2}x - 2$
 $-5 = \frac{1}{3}(-6) - 3$ $-5 = \frac{-1}{2}(-6) - 2$
 $-5 = -2 - 3$ $-5 = -3 - 2$
 $-5 = -5$ $-5 = -5$

57. Cassie determined the solution of a pair of linear equations as $(-1, 4)$. In order to verify that the values of x and y satisfy both equations, which option shows a correct way to check her solution?

- A. $y = x - 5$ $y = 2x - 9$
 $-1 = 4 - 5$ $-1 = 2(4) - 9$
 $-1 = -1$ $-1 = 8 - 9$
 $-1 = -1$
- B. $y = -3x + 11$ $y = x + -3$
 $-1 = -3(4) + 11$ $-1 = 4 + -3$
 $-1 = -12 + 11$ $-1 = 4 - 3$
 $-1 = -1$ $-1 = 1$
- C. $y = -3x + 7$ $y = 2x + 6$
 $4 = -3(-1) + 7$ $4 = 2(-1) + 6$
 $4 = -3 + 7$ $4 = -2 + 6$
 $4 = 4$ $4 = 4$
- D. $y = 2x + 6$ $y = -2x + 2$
 $4 = 2(-1) + 6$ $4 = -2(-1) + 2$
 $4 = -2 + 6$ $4 = 2 + 2$
 $4 = 4$ $4 = 4$

58. A system of equations is shown below.

$$\begin{cases} 4x + y = 8 \\ 2x - 3y = 18 \end{cases}$$

If the first equation is multiplied by a constant and the result is added to the second equation, which equation could result?

- A. $-10x = -6$
- B. $-2y = 26$
- C. $7y = 44$
- D. $14x = 42$

59. How many solutions does the system of equations shown below have?

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

- A. no solution
- B. infinitely many solutions
- C. one solution with a y value of 5
- D. one solution with a y value of -1

60. A system of equations is shown below.

$$x - y = 8$$

$$x + 4y = 28$$

Which calculations show a correct procedure and solution for this system of equations?

A.

$$\begin{array}{r} x - y = 8 \\ x + 4y = 28 \\ \hline 3y = 36 \\ y = 12 \end{array}$$

$$\begin{array}{r} x - 12 = 8 \\ x = 8 + 12 \\ x = 20 \end{array}$$

B.

$$\begin{array}{r} 4(x - y = 8) \\ x + 4y = 28 \end{array}$$

$$\begin{array}{r} 4x - 4y = 32 \\ x + 4y = 28 \\ \hline 5x = 60 \\ x = 12 \end{array}$$

$$\begin{array}{r} 12 - y = 8 \\ y = 8 - 12 \\ y = -4 \end{array}$$

C.

$$\begin{array}{r} -1(x - y = 8) \\ x + 4y = 28 \end{array}$$

$$\begin{array}{r} -x + y = -8 \\ x + 4y = 28 \\ \hline 5y = 20 \\ y = 4 \end{array}$$

$$\begin{array}{r} x - 4 = 8 \\ x = 8 + 4 \\ x = 12 \end{array}$$

D.

$$\begin{array}{r} x - y = 8 \\ -1(x + 4y = 28) \end{array}$$

$$\begin{array}{r} x - y = 8 \\ -x - 4y = 28 \\ \hline -5y = 36 \\ y = -7.2 \end{array}$$

$$\begin{array}{r} x - (-7.2) = 8 \\ x = 8 + (-7.2) \\ x = 0.8 \end{array}$$

61. Solve for x .

$$x + 4y = 6, 3y = 12$$

- A. $x = 4$
- B. $x = -4$
- C. $x = 10$
- D. $x = -10$

62. A system of equations is shown below.

$$\begin{aligned}y &= 2x + 1 \\y &= x + 2\end{aligned}$$

What is the solution to the system?

- A. $(0, 1)$
- B. $(1, 2)$
- C. $(1, 3)$
- D. $(2, 4)$

63. What is the solution to this system of equations?

$$\begin{aligned}y &= \frac{3}{2}x - 1 \\y &= 3x + 5\end{aligned}$$

- A. $(1, 8)$
- B. $\left(\frac{2}{3}, 7\right)$
- C. $(-2, 1)$
- D. $(-4, -7)$

64. What is the x -value of the solution to the system of equations shown below?

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

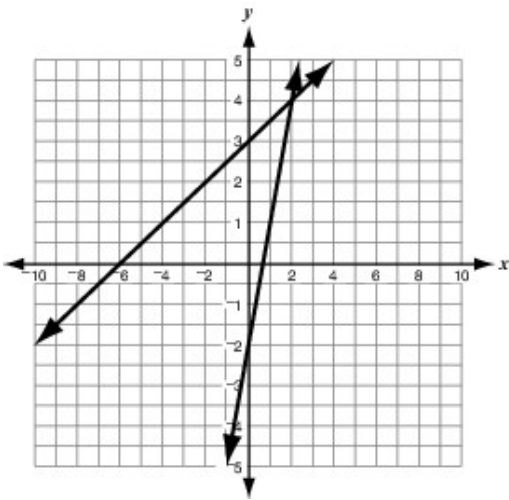
- A. -3
- B. -1
- C. 1
- D. 3

65. What is the y -coordinate of the ordered pair that satisfies this system of linear equations?

$$\begin{cases} 6x + 4y = -14 \\ -x - 5y = 11 \end{cases}$$

- A. 2
- B. 1
- C. -1
- D. -2

66. Which ordered pair is the solution to the system of linear equations graphed below?



- A. $(-6, 0)$
- B. $(0, -2)$
- C. $(0, 3)$
- D. $(2, 4)$

67. What is the x -coordinate of the ordered pair that satisfies this system of linear equations?

$$\begin{aligned} 3x - 5y &= 10 \\ -x + 3y &= -6 \end{aligned}$$

- A. -2
- B. 0
- C. 2
- D. 3

68. A system of equations is shown below.

$$\begin{aligned} y &= x + 4 \\ x + 2y &= 11 \end{aligned}$$

What is the solution to the system of equations?

- A. $(1, 5)$
- B. $(4, 8)$
- C. $(6, 2)$

69. What ordered pair represents the solution to this system of linear equations?

$$3y = 2x + 2$$
$$y = \frac{4}{3}x + 1$$

- A. $\left(-\frac{1}{2}, \frac{1}{3}\right)$
- B. $\left(-\frac{1}{3}, \frac{1}{2}\right)$
- C. $\left(\frac{1}{3}, -\frac{1}{2}\right)$
- D. $\left(\frac{1}{2}, -\frac{1}{3}\right)$

70. A system of equations is shown below.

$$y = 3x + 5$$
$$x + y = -7$$

What is the value of y in the solution to the system?

- A. 2
- B. -3
- C. -4

71. A system of equations is shown below.

Equation 1: $2x - y = -8$

Equation 2: $x + 2y = 6$

To begin solving the system of equations, Equation 1 is multiplied by a value of 2 to create Equation 3.

Equation 3: $4x - 2y = -16$

Equation 2: $x + 2y = 6$

Which procedure could best be used to eliminate one of the variables?

- A. add Equation 2 to Equation 3
- B. subtract Equation 2 from Equation 3
- C. subtract Equation 3 from Equation 2
- D. multiply Equation 2 by a value of 4

72. Two linear equations are given below.

$$x - 4y = -20$$

$$x - 4y = -8$$

Exactly how many solutions does this system of equations have?

- A. no solution
- B. one solution
- C. two solutions
- D. infinite solutions

73. A system of equations is shown below.

$$2x - y = 5$$

$$x + 3y = 0$$

Which statement is true regarding this system?

- A. To solve the system, multiply the second equation by 2 and then add the result to the first equation.
- B. To solve the system, multiply the first equation by 3 and then add the result to the second equation.
- C. The system has no solution since the second equation is equal to 0.
- D. The system has infinitely many solutions since the second equation is equal to 0.

74. A system of equations is shown below.

$$\begin{aligned} 2x - 6y &= -6 \\ y &= 1.5x - 2.5 \end{aligned}$$

What is the value of x in the solution to the system?

- A. 4
- B. 3
- C. 2
- D. 1

75. A system of equations is shown below.

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

$$5x + y = -9$$

What is the solution to the system?

- A. (2, 1)
- B. (1, -14)
- C. (-1, -4)
- D. (-2, 1)

76. A system of equations is shown below.

$$2x + y = 9$$

$$x + 3y = -13$$

Which sequence of operations would produce the correct x - or y -value of the solution to this system of equations?

- A. multiply the first equation by 3 and add the result to the second equation to eliminate y and solve for x
- B. multiply the second equation by -1 and add the result to the first equation to eliminate x and solve for y
- C. multiply the second equation by $\frac{9}{13}$ and add the result to the first equation to eliminate the constant and solve for x and y
- D. multiply the first equation by -3 and add the result to the second equation to eliminate y and solve for x

77. What is the value of y in the solution to the system of equations below?

$$y = -x + 6$$

$$2x - y = -9$$

- A. 3
- B. 7
- C. 9
- D. 11

78. What is the solution to the system of equations shown below?

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

A. $\left(\frac{21}{10}, \frac{26}{5}\right)$

B. $\left(\frac{9}{7}, -\frac{11}{7}\right)$

C. $\left(\frac{15}{2}, 1\right)$

D. $\left(\frac{3}{2}, -2\right)$

79. What ordered pair represents the solution to this system of linear equations?

$$\begin{aligned} -3x + 5y &= 21 \\ x &= 2y - 8 \end{aligned}$$

A. $(-3, 2)$

B. $(-2, 3)$

C. $(2, -3)$

D. $(3, -2)$

80. Chun wants to solve the system of equations below.

$$x + 2y = -1$$

$$2x + 7y = 4$$

Which process shows Chun correctly solving the system of equations?

A. $2(x + 2y = -1)$

$$2x + 7y = 4$$

$$2x + 4y = -2$$

$$2x + 7y = 4$$

$$11y = 2$$

$$y = \frac{2}{11}$$

$$x + 2\left(\frac{2}{11}\right) = -1$$

$$x + \frac{4}{11} = -1$$

$$x = -1 - \frac{4}{11}$$

$$x = -\frac{15}{11}$$

B. $4(x + 2y = -1)$

$$2x + 7y = 4$$

$$4x + 8y = -4$$

$$2x + 7y = 4$$

$$6x + y = 0$$

$$6x = 0$$

$$x = \frac{0}{6}$$

$$x = 0$$

$$0 + 2y = -1$$

$$2y = -1$$

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

C. $x + 2y = -1$

$$-\frac{1}{2}(2x + 7y = 4)$$

$$x + 2y = -1$$

$$-x - \left(\frac{7}{2}\right)y = 2$$

$$-\left(\frac{3}{2}\right)y = 1$$

$$y = -\frac{2}{3}$$

$$x + 2\left(-\frac{2}{3}\right) = -1$$

$$x + \left(-\frac{4}{3}\right) = -1$$

$$x = -1 + \frac{4}{3}$$

$$x = \frac{1}{3}$$

D. $-2(x + 2y = -1)$

$$2x + 7y = 4$$

$$-2x - 4y = 2$$

$$2x + 7y = 4$$

$$3y = 6$$

$$y = 2$$

$$x + 2(2) = -1$$

$$x + 4 = -1$$

$$x = -1 - 4$$

$$x = -5$$

81. A system of equations is shown below.

$$\begin{cases} 3x + 2y = -4 \\ x + 3y = 1 \end{cases}$$

If the second equation is multiplied by a constant and the result is added to the first equation, which equation could result?

- A. $-7y = -7$
- B. $-2x = 5$
- C. $5y = -3$
- D. $11x = -10$

82. A system of equations is shown below.

$$\begin{aligned} y &= 2x + 3 \\ 4x + y &= 21 \end{aligned}$$

What is the value of x in the solution to the system?

- A. 3
- B. 4
- C. 5

83. A system of equations is shown below.

$$\begin{aligned} x + y &= 20 \\ x &= 16 + y \end{aligned}$$

What is the value of x in the solution to the system?

- A. 2
- B. 4
- C. 18
- D. 20

84. A system of equations is shown below.

$$\begin{aligned}y &= 2x \\ y &= 4x - 8\end{aligned}$$

What is the value of y in the solution to the system?

- A. 4
- B. 6
- C. 8

85.

86.

87.

88.

89. **Connie has enough fencing to enclose a rectangular garden with a perimeter of 200 feet. If the length of her garden is 20 feet greater than the width, what is the length of the garden?**

- A. 40 feet
- B. 45 feet
- C. 60 feet
- D. 65 feet

90. **Together, Ben and Charlie have 882 stamps. They use the following equations to describe the number of stamps they each have.**

$$b + c = 882 \qquad b = 8c + 5$$

The solution to the pair of equations is $c = 97.4$. Which option best describes this solution?

- A. Charlie has 97 stamps and Ben has 785 stamps.
- B. Charlie has 98 stamps and Ben has 784 stamps.
- C. The solution is not reasonable because the total number of stamps must be 882.
- D. The solution is not reasonable because the number of stamps must be a whole number.

91. 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.
92. Last year Ms. Diaz invested \$9,000. Some of her money was invested in stocks paying 6% annually and the rest was invested in bonds paying 7.5% annually. She received a total of \$600 from these investments for the year. How much did she invest in the stocks paying 6%?
- A. \$4,000
 - B. \$4,500
 - C. \$4,800
 - D. \$5,000
93. The Happy Ride Amusement Park offers the two admission plans described below. A visitor to the park plans to buy tickets for a number of rides. For what number of rides would the total cost of Plan X be equal to the total cost of Plan Y?
- Plan X: \$13.00 admission fee plus \$2.00 for each ride ticket
Plan Y: \$4.00 admission fee plus \$3.50 for each ride ticket
- A. 2
 - B. 3
 - C. 6
 - D. 11
94. A boat traveled 30 miles upstream on a river in 6 hours. The return trip took the boat 3 hours. What was the rate of the river current, in miles per hour?
- A. 10
 - B. 7.5
 - C. 5
 - D. 2.5
95. Jerry is 4 years older than Hunter. The sum of their ages is 24. How old is Jerry?
- A. 10 years old
 - B. 12 years old
 - C. 14 years old

96. Mrs. Owens bought 3 boxes of pencils and 5 packages of pens for a total cost of \$25. Mr. Wu bought 6 boxes of pencils and 8 packages of pens for a total cost of \$43.

$$3x + 5y = 25 \quad 6x + 8y = 43$$

The solution to the system of equations is (2.5, 3.5). Which option below best interprets this result?

- A. The price per box for pencils is \$0.25, and the price per package of pens is \$0.35.
B. The price per box for pencils is \$0.35, and the price per package of pens is \$0.25.
C. The price per box for pencils is \$2.50, and the price per package of pens is \$3.50.
D. The price per box for pencils is \$3.50, and the price per package of pens is \$2.50
97. A rectangular swimming pool has a width that is 6 feet less than its length. The perimeter of the pool is 84 feet. What is the length of the pool?
- A. 18 ft
B. 21 ft
C. 24 ft
D. 36 ft
98. Acme Phone Card charges \$0.10 a minute for each call. Reliable Phone Card charges \$0.20 for each call made plus \$0.05 a minute. This can be represented by the system of equations shown below, where y is the total cost of the call and x is the length of the call in minutes.

$$y = 0.1x$$

$$y = 0.05x + 0.2$$

For what length of call would the total charges be the same when using either the Acme Phone Card or the Reliable Phone Card?

- A. $1\frac{1}{3}$ minutes
B. $2\frac{1}{2}$ minutes
C. 3 minutes
D. 4 minutes
99. Julio paid \$18.25 to buy 3 pounds of peanuts and 2 pounds of cashews. Imogene paid \$15.50 to buy 2 pounds of peanuts and 2 pounds of cashews. If both people paid the same price per pound, what was the price per pound of cashews?
- A. \$7.75
B. \$6.10
C. \$5.00
D. \$2.75

100. Portia worked 2 part-time jobs and earned \$233.00 for working a total of 26 hours at both jobs. She is paid \$7.00 per hour at Job A and \$10.00 per hour at Job B. How many hours did Portia work at Job A?
- A. 8
 - B. 9
 - C. 13
 - D. 17
101. A bakery sells glazed and sprinkled donuts in boxes of 12 each. On Saturday, the bakery sold half as many sprinkled donuts as glazed donuts. If the total number of donuts sold Saturday was 936, how many boxes of glazed donuts were sold?
- A. 13
 - B. 26
 - C. 52
 - D. 78
102. The sum of integers x and y is 280. If x is divided by 7, the quotient is y . What is the value of x ?
- A. 35
 - B. 40
 - C. 240
 - D. 245
103. The length of a rectangle is 16 inches longer than its width. If the perimeter of the rectangle is 540 inches, what is the length in inches?
- A. 111
 - B. 127
 - C. 135
 - D. 143
104. Caryn worked 2 part-time jobs and earned \$184.00 for working a total of 22 hours at both jobs. She is paid \$7.00 per hour at Job A and \$9.00 per hour at Job B. How many hours did Caryn work at Job A?
- A. 15
 - B. 11
 - C. 8
 - D. 7
105. Paul has a collection of nickels and dimes that has a total value of \$12.50. He has 150 coins in all. How many dimes does Paul have?
- A. 50
 - B. 75
 - C. 100
 - D. 134

106. Chang has 36 coins, all dimes and half-dollars. The total value of all these coins is \$12.00. How many dimes does he have?
- A. 6
 - B. 15
 - C. 18
 - D. 21
107. Alyssa worked 2 part-time jobs and earned \$181.50 for working a total of 24 hours at both jobs. She is paid \$6.00 per hour at Job A and \$8.50 per hour at Job B. How many hours did Alyssa work at Job A?
- A. 6
 - B. 9
 - C. 12
 - D. 15
108. The length of a rectangle is 7 cm longer than the width. The perimeter of the rectangle is 46 cm. What is the length of the rectangle?
- A. 15 cm
 - B. 16 cm
 - C. 20 cm
 - D. 23 cm
109. Sammy picks blueberries and cherry tomatoes.
- She earns \$3.00 for each pint of blueberries and \$2.00 for every pint of cherry tomatoes she picks.
 - Sammy earned a total of \$28.00.
 - She picked twice as many pints of tomatoes as blueberries.
- How many pints of blueberries did Sammy pick?
- A. 4
 - B. 5
 - C. 7
 - D. 8
110. An apartment building contains 100 units. The one-bedroom units rent for \$495 per month and the two-bedroom units rent for \$600 per month. When all the units are rented out, the total monthly rent paid by the tenants is \$55,275. How many two-bedroom apartments are there?
- A. 45
 - B. 50
 - C. 55
 - D. 66

111. An airplane, traveling with the wind, flew 400 miles from Mansfield to Springfield in 2 hours. The plane made the return flight, traveling against the wind, in 4 hours. What was the average rate, in miles per hour, of the airplane?
- A. 50
 - B. 100
 - C. 150
 - D. 200
112. Ms. Higgins spent \$11.35 to buy a total of 22 mangos and bananas. A mango costs \$0.90 and a banana costs \$0.25. How many mangos did Ms. Higgins buy?
- A. 13
 - B. 11
 - C. 9
 - D. 4
113. The length of a rectangle is three times its width. The perimeter is 72 feet. What is the width of the rectangle in feet?
- A. 9
 - B. 12
 - C. 18
 - D. 24
114. A barge traveled 21 miles upstream on a river in 7 hours. The return trip took the barge 3 hours. What is the rate of the barge in still water, in miles per hour?
- A. 7 miles per hour
 - B. 5 miles per hour
 - C. 3 miles per hour
 - D. 2 miles per hour
115. Adam's piggy bank contains dimes and nickels, for a total of 236 coins. The contents are worth a total of \$17.40. How many nickels does Adam's piggy bank contain?
- A. 112
 - B. 124
 - C. 136
 - D. 148
116. Art paid \$8.50 to buy 2 large sodas and 1 hamburger. Nila paid \$27.00 to buy 4 large sodas and 4 hamburgers. If both people paid the same price per item, what was the price of a hamburger?
- A. \$1.75
 - B. \$4.25
 - C. \$5.00
 - D. \$6.75

117. Two customers entered Kim's bakery at the same time. One of them bought 7 bagels and 5 doughnuts, and paid \$7.35. The other customer bought 4 bagels and 6 doughnuts, and paid \$6.40. What is the price of each bagel and each doughnut?
- A. A bagel costs \$0.30, and a doughnut costs \$1.05.
 - B. A bagel costs \$0.55, and a doughnut costs \$0.70.
 - C. A bagel costs \$0.70, and a doughnut costs \$0.55.
 - D. A bagel costs \$1.05, and a doughnut costs \$0.30.
118. Jack has twice as many dimes as quarters. If the total value of the coins is \$6.30, how many dimes does he have?
- A. 14
 - B. 18
 - C. 28
 - D. 42
119. During a championship year, the team won 22 more regular season games than they lost. No game ended in a tie. If the team played 162 regular season games during the season, how many of those games did they win?
- A. 81
 - B. 92
 - C. 103
 - D. 140
120. 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

121. 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)
122. The total cost of 10 gallons of regular paint and 15 gallons of deluxe paint is \$315. If the deluxe paint costs \$6 more per gallon than the regular paint, what is the cost for 20 gallons of regular paint?
- A. \$80.00
 - B. \$180.00
 - C. \$247.20
 - D. \$252.00
123. The difference between two numbers is 96. The larger number is five times the smaller number. What are the numbers?
- A. 22 and 110
 - B. 22 and 122
 - C. 24 and 120
 - D. 21 and 117
124. A boat traveled 30 miles upstream on a river in 6 hours. The return trip took the boat 3 hours. What was the boat's rate of travel in still water, in miles per hour?
- A. 10
 - B. 7.5
 - C. 5
 - D. 2.5
125. Ace Truck Rental charges a daily fee plus a mileage fee. Samantha was charged \$125 for 2 days and 100 miles when she rented a truck and Lucas was charged \$275 for 3 days and 400 miles when he rented a truck. What is Ace Truck Rental's daily fee?
- A. \$35.00
 - B. \$45.00
 - C. \$50.00
 - D. \$56.25

126. A school chorus has 68 members. There are 16 more boys than girls. How many boys are in the chorus?
- A. 26
 - B. 42
 - C. 50
127. Rita has one less than three times as many dollars as her friend Jorge. The difference between the amounts the two friends have is less than 99 dollars. How much money does Jorge have?
- A. less than \$25
 - B. more than \$25
 - C. less than \$50
 - D. more than \$50
128. A boat travels 24 miles upstream in 6 hours. The return trip downstream takes 2 hours. If the boat travels at the same rate on both parts of the trip, what is the rate of the current, in miles per hour?
- A. 3
 - B. 4
 - C. 6
 - D. 8
129. Seth has three more than twice as many baseball cards as Aaron. Together they have 33 baseball cards. How many cards does Seth have?
- A. 10
 - B. 15
 - C. 18
 - D. 23
130. Debra saved only dimes and nickels in her bank. When she last counted the coins, she noticed there were twice as many dimes as nickels. She had \$4.75 in her bank. How many dimes did she have in her bank?
- A. 38
 - B. 24
 - C. 19
 - D. 12

131. Ben went to the farmer's market with \$14.00, bought 2 pounds of cherries and still had enough money left to buy 3 pounds of apples. Tom went to the farmer's market and bought 6 pounds of apples and 4 pounds of cherries for \$28.00.

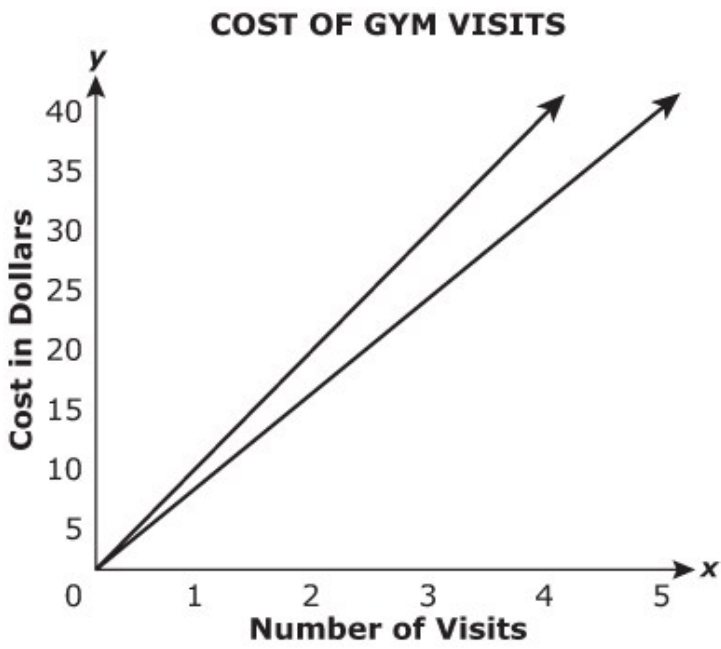
$$14 - 2y = 3x$$

$$6x + 4y = 28$$

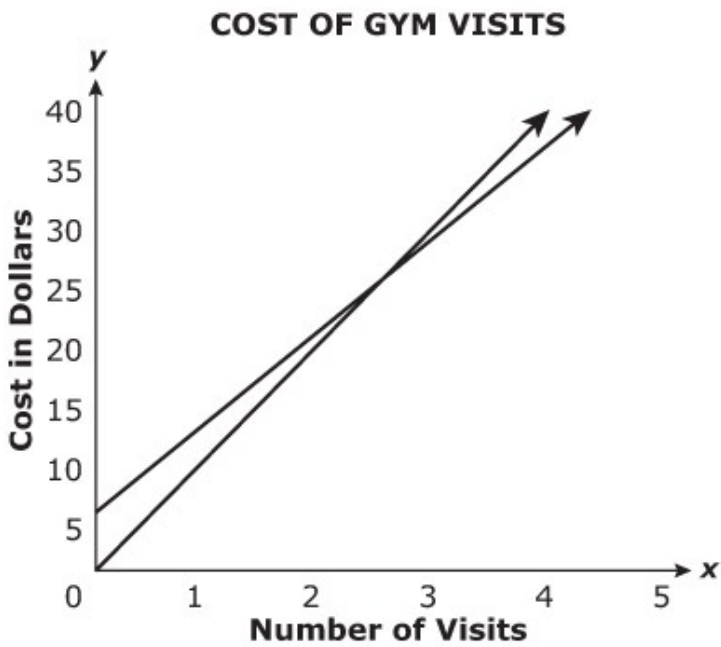
The boys solved the equations to find the price per pound that they paid for cherries and found the solution $14 = 14$. How should they interpret this result?

- A. The price of 2 pounds of cherries is \$14.00.
 - B. The price of 4 pounds of cherries is \$14.00.
 - C. They made a math error when solving the equations, and should try a different solution method to find the price of the cherries.
 - D. The two equations describe the same line, so there is not enough information to determine the price per pound of cherries.
132. Ms. Watson spent \$11.90 to buy a total of 20 candy bars and lollipops. A candy bar costs \$1.40 and a lollipop costs \$0.25. How many candy bars did Ms. Watson buy?
- A. 14
 - B. 10
 - C. 8
 - D. 6
133. Lamar has 46 coins, all nickels and dimes. The total value of all these coins is \$3.05. How many nickels does he have?
- A. 15
 - B. 16
 - C. 23
 - D. 31
134. Last year Ms. Abalos invested \$9,000. Some of her money was invested in federal notes paying 5% annually and the rest was invested in municipal bonds paying 10% annually. She received a total of \$700 from these investments for the year. How much did she invest in the federal notes paying 5%?
- A. \$4,000
 - B. \$4,500
 - C. \$4,850
 - D. \$5,000
135. 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?

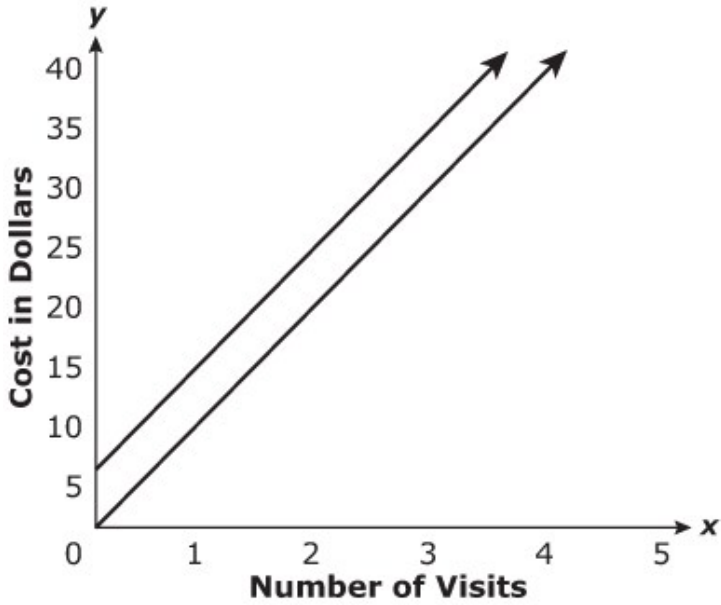
A.



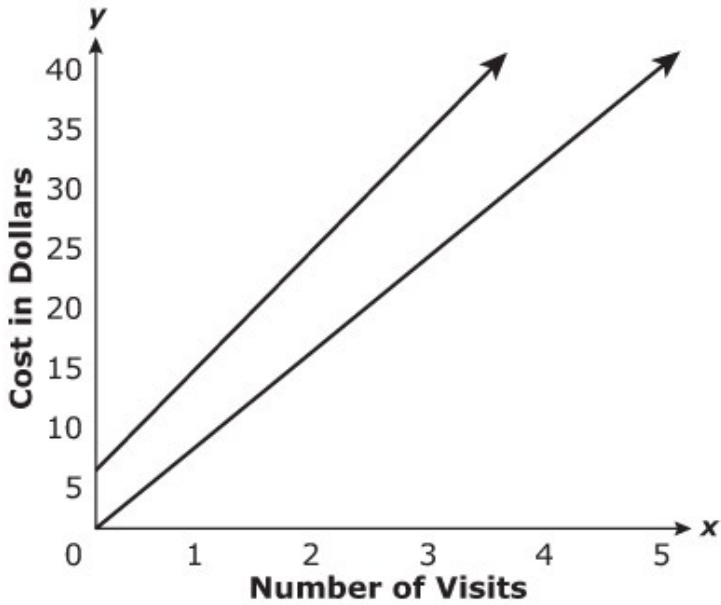
B.



C. **COST OF GYM VISITS**



D. **COST OF GYM VISITS**



136. Adult and student tickets were sold for a school concert. The adult tickets cost \$12 each, and the student tickets cost \$8 each. If a total of 360 tickets were sold for \$3,480, how many of each kind of ticket were sold?

- A. 300 adult tickets and 60 student tickets
- B. 200 adult tickets and 160 student tickets
- C. 180 adult tickets and 180 student tickets
- D. 150 adult tickets and 210 student tickets

137. Jarred has 50 coins, all nickels and half-dollars. The total value of all these coins is \$10.15. How many nickels does he have?

- A. 16
- B. 17
- C. 25
- D. 33

138. Deanna skated from her home to the park at an average rate of 16 kilometers per hour. Then she walked home at an average rate of 3.2 kilometers per hour. The entire trip took 2 hours. How far away from Deanna's home is the park?

- A. $5\frac{1}{3}$ kilometers
- B. 8 kilometers
- C. 16 kilometers
- D. $19\frac{1}{5}$ kilometers

139. Ian has x quarters and y dimes. The total number of coins he has is 31, and the total value of the coins is \$5.20. The two equations below describe this situation.

$$0.25x + 0.10y = 5.20$$

$$x + y = 31$$

The solution to the system of equations is $x = 14$ and $y = 17$. Which option below is the best interpretation?

- A. Ian has 17 quarters and 14 dimes.
- B. Ian has 14 quarters and 14 dimes.
- C. Ian has 14 quarters and 17 dimes.
- D. Ian has 17 quarters and 17 dimes.

140. During the past year, Ms. Nguyen invested \$8,500. Some of her money was invested in stocks paying 6% annually and the rest was invested in bonds paying 8% annually. She received a total of \$600 from these investments for the year. How much did she invest in the stocks paying 6%?

- A. \$4,550
- B. \$4,500
- C. \$4,250
- D. \$4,000

141. Natalie purchases a new car for \$26,868. She pays \$3,000 up front and agrees to make a \$430 payment every month for 60 months.

Natalie's car loses value as it gets older. A common accounting method to track this loss of value is *straight-line depreciation*. According to straight-line depreciation, Natalie's car loses \$233 in value each month.

After how many months will the money Natalie has paid equal the value of her car?

- A. 60
- B. 45
- C. 41
- D. 36

142. A number is 12 greater than a second number. The sum of the two numbers is 66. What is the smaller number?

- A. 21
- B. 27
- C. 39
- D. 45

143. Manuel bought a shirt and a sweater for a total price of \$65. The price of the sweater was \$5 more than twice the price of the shirt. What was the price of the shirt?

- A. \$13
- B. \$20
- C. \$30
- D. \$45

144. Two homeroom classes went on a field trip to a museum. Mrs. Blair's class purchased 28 student tickets and 6 adult tickets, paying a total of \$239. Mr. Conrad's class purchased 33 student tickets and 7 adult tickets, paying a total of \$281. The equations shown below reflect the ticket purchases of the two classes.

$$28x + 6y = 239$$

$$33x + 7y = 281$$

The solution to the system of equations is (6.5, 9.5). What is the correct interpretation of this solution?

- A. The cost of a student ticket is \$95.00 and the cost of an adult ticket is \$65.00.
- B. The cost of a student ticket is \$9.50 and the cost of an adult ticket is \$6.50.
- C. The cost of a student ticket is \$65.00 and the cost of an adult ticket is \$95.00.
- D. The cost of a student ticket is \$6.50 and the cost of an adult ticket is \$9.50.

145. During a recent trip to a zoo, the Wildlife Club paid a total of \$350 for admission for its members. Adults paid \$7.50 each for admission, while students paid for discount tickets that cost \$5.00 each. If 22 adults went on the trip, how many students went on the trip?

- A. 32 students
- B. 37 students
- C. 55 students
- D. 180 students

146. For every \$3.00 donated to a certain charity by Club A, \$1.25 was donated by Club B. If the combined total amount donated to the charity by both clubs was \$25,500.00, how much did Club A donate?
- A. \$25,500.00
 - B. \$18,000.00
 - C. \$17,125.00
 - D. \$12,000.00
147. Naomi caught half as many fish as Jack. Together, they caught 18 fish. How many fish did Jack catch?
- A. 6
 - B. 9
 - C. 12
 - D. 15
148. The length of a rectangle is 4 cm less than twice the width. The perimeter of the rectangle is 58 cm. What is the length of the rectangle?
- A. 11 cm
 - B. 18 cm
 - C. 27 cm
 - D. 29 cm
149. Brandy is riding in a motorboat $2\frac{1}{2}$ miles upstream. The trip takes 3 hours. She rides in the motorboat back downstream to her original starting point in 2 hours. How fast, in miles per hour (mph), is the current traveling?
- A. $\frac{5}{24}$ mph
 - B. $\frac{1}{2}$ mph
 - C. $\frac{5}{6}$ mph
 - D. $\frac{25}{24}$ mph
150. An airplane travels at a rate of 250 miles per hour with the wind and at a rate of 150 miles per hour against the wind. What is the rate, in miles per hour, of the wind?
- A. 50
 - B. 100
 - C. 200
 - D. 400

151. A barge traveled 24 miles upstream on a river in 8 hours. The return trip took the barge 3 hours. What is the rate of the current, in miles per hour?
- A. 2.5
 - B. 3
 - C. 5.5
 - D. 8
152. The tickets to a high school hockey game cost either \$6 or \$11. A total of 450 tickets, worth \$3,950, were sold. How much of the \$3,950 was made from selling the \$6 tickets?
- A. \$2,750
 - B. \$1,200
 - C. \$250
 - D. \$200
153. Carla has \$70,000 to invest. She invests part at 8% and the rest at 12%. If she earns \$6300 in interest, how much money did she invest at 12%?
- A. \$17,500
 - B. \$35,000
 - C. \$52,500
 - D. \$70,000
154. A canoe traveled 24 miles upstream on a river in 8 hours. The return trip took the boat 4 hours. What is the rate of the current, in miles per hour?
- A. 6
 - B. 4.5
 - C. 3
 - D. 1.5
155. Veronica bought a shirt and a sweater for a total price of \$65. The price of the sweater was \$2 more than twice the price of the shirt. What was the price of the shirt?
- A. \$21.00
 - B. \$22.33
 - C. \$31.50
 - D. \$44.00
156. Rudy has 46 coins, all dimes and quarters. The total value of all these coins is \$6.70. How many dimes does he have?
- A. 32
 - B. 23
 - C. 18
 - D. 14

157. Last year Ms. Abalos invested \$9,000. Some of her money was invested in stocks paying 4% annually and the rest was invested in bonds paying 7.5% annually. She received a total of \$500 from these investments for the year. How much did she invest in the stocks paying 4%?
- A. \$4,000
 - B. \$4,500
 - C. \$4,750
 - D. \$5,000
158. The Math Club raised money for its spring banquet by washing vehicles. The club charged \$3 per car and \$5 per truck. The club earned a total of \$510 for washing 122 cars and trucks combined. How many cars did the club wash?
- A. 36
 - B. 50
 - C. 72
 - D. 86
159. In 2005, Ms. DiSimone invested \$8,500. Some of her money was invested in federal notes paying 4% annually and the rest was invested in municipal bonds paying 8% annually. She received a total of \$500 from these investments for the year. How much did she invest in the federal notes paying 4%?
- A. \$3,400
 - B. \$4,000
 - C. \$4,250
 - D. \$4,500
160. Raymond has a collection of 1260 United States and Canadian coins. He has 2.5 times as many United States coins as Canadian coins. How many United States coins does Raymond have in his collection?
- A. 360
 - B. 504
 - C. 756
 - D. 900
161. Last year Ms. Diaz invested \$9,000. Some of her money was invested in a savings account paying 6% annually and the rest was invested in a different savings account paying 10% annually. She received a total of \$700 from these investments for the year. How much did she invest in the savings account paying 6%?
- A. \$4,000
 - B. \$4,500
 - C. \$4,850
 - D. \$5,000
162. On Sunday 440 people visited a museum that charges \$9 for each child and \$12.50 for each adult. If the museum earned \$5,220 on that day, how many adults visited the museum on Sunday?
- A. 20
 - B. 80
 - C. 360
 - D. 420

163. Monica keeps a supply of dimes and quarters in her car to pay for highway tolls. A week's supply of toll coins contains 10 more dimes than quarters and totals \$11.50. How many quarters does Monica spend on highway tolls in one week?
- A. 26
B. 30
C. 36
D. 40
164. Mr. Osler keeps a supply of dimes and quarters in his car to pay for highway tolls. A week's supply of toll coins contains 10 more dimes than quarters and totals \$6.95. How many quarters does Mr. Osler spend on highway tolls in one week?
- A. 10
B. 17
C. 27
D. 44
165. Santo paid \$16.25 to buy 5 children tickets and 1 adult ticket. Hulda paid \$24.00 to buy 4 children tickets and 3 adult tickets. If both people paid the same price per ticket, what was the price of an adult ticket?
- A. \$6.00
B. \$5.00
C. \$3.25
D. \$2.25
166. In a week that he works 36 hours and builds 1800 units, Sam earns \$882. In a week that he works 34 hours and builds 1600 units, he earns \$808.

$$882 = 36x + 1800y \qquad 808 = 34x + 1600y$$

Abbie determines that this system of equations can be solved by the ordered pair (12, 0.25). Which option best describes this solution?

- A. Abbie's solution is correct because $882 = (36 \times 12) + (1800 \times 0.25)$.
- B. Abbie's solution is incorrect because $808 \neq (34 \times 0.25) + (1600 \times 12)$.
- C. Abbie's solution is correct because $882 = (36 \times 12) + (1800 \times 0.25)$,
and $808 = (34 \times 12) + (1600 \times 0.25)$.
- D. Abbie's solution is incorrect because $882 \neq (36 \times 0.25) + (1800 \times 12)$,
and $808 \neq (34 \times 0.25) + (1600 \times 12)$.
167. Gordon has enough fencing to enclose a rectangular garden with a perimeter of 120 feet. If the width of his garden is 4 feet less than the length, what is the width, in feet, of the garden?
- A. 27
B. 28
C. 31
D. 32

168. At a store, Claire bought 1 sandwich and 2 sodas for \$5.50. A sandwich costs \$1.00 more than a soda. How much did the sandwich cost?
- A. \$1.50
 - B. \$2.00
 - C. \$2.50
169. The seniors on the student council bought a total of 36 plants to use in landscaping the front of the school. They bought some azaleas that cost \$6 each and some lilies that cost \$5 each. They spent a total of \$196 on these plants. How many azaleas did the students buy?
- A. 5
 - B. 16
 - C. 18
 - D. 20
170. Ms. Wong spent \$9.20 to buy a total of 18 pens and pencils. A pen costs \$0.80 and a pencil costs \$0.40. How many pens did Ms. Wong buy?
- A. 5
 - B. 8
 - C. 9
 - D. 13
171. Ms. Dixon spent \$9.20 to buy a total of 18 pens and pencils. A pen costs \$0.90 and a pencil costs \$0.20. How many pens did Ms. Dixon buy?
- A. 2
 - B. 8
 - C. 9
 - D. 10
172. José bought a shirt and a sweater for a total price of \$65. The price of the sweater was \$5 more than twice the price of the shirt. What was the price of the shirt?
- A. \$20
 - B. \$30
 - C. \$35
 - D. \$45
173. Michelle's age is 5 more than 3 times Ashley's age. The sum of their ages is 49. How old is Ashley?
- A. 11 years old
 - B. 15 years old
 - C. 18 years old

174. An airplane trip takes 6 hours to fly 2400 kilometers against the wind. The return trip with the wind takes only 4 hours. What would be the speed, in kilometers per hour, of the airplane on the same trip traveling when the air is still?
- A. 100
 - B. 400
 - C. 500
 - D. 600

175. Line M goes through the points $(-2, -8)$ and $(1, 1)$. Which pair of points lies on a straight line that intersects Line M ?
- A. $(-3, -2), (2, 6)$
 - B. $(-2, -1), (3, 14)$
 - C. $(0, 2), (1, 5)$
 - D. $(2, 1), (-5, -20)$

176. John has \$20 to spend at a used bookstore.
- He wants to buy twice as many science fiction books as mystery books.
 - Mystery books sell for \$1.25.
 - Science fiction books sell for \$1.75.
 - Tax is included in the prices.

What is the greatest number of science fiction books that John can buy?

- A. 5
 - B. 7
 - C. 8
 - D. 10
177. Brianna buys one box of colored pencils and two boxes of markers, which together cost \$10. Sharron buys three boxes of colored pencils and four boxes of markers, which together cost \$24. The two equations below represent this situation.

$$x + 2y = 10$$

$$3x + 4y = 24$$

Gene solves the pair of equations, and finds the cost per box of colored pencils, $x = 4$, and the cost per box of markers, $y = 3$. Is Gene's solution reasonable? Why or why not?

- A. Yes, Gene's solution is reasonable, because $4 + 2 \times 3 = 10$ and $3 \times 4 + 4 \times 3 = 24$.
- B. Yes, Gene's solution is reasonable, because $3 + 2 \times 4 = 10$ and $3 \times 3 + 4 \times 4 = 24$.
- C. No, Gene's solution is not reasonable, because $4 + 2 \times 3 \neq 10$ and $3 \times 4 + 4 \times 3 \neq 24$.
- D. No, Gene's solution is not reasonable, because $3 + 2 \times 4 \neq 10$ and $3 \times 3 + 4 \times 4 \neq 24$.

178. Art rows 10 miles upstream in 5 hours. He rows the same distance downstream in 2 hours. What is the rate of the water current in miles per hour?
- A. $1\frac{1}{2}$
 - B. $2\frac{6}{7}$
 - C. $3\frac{1}{2}$
 - D. 4
179. Ms. Dunn spent \$10.70 to buy a total of 24 slices of pie or cookies. A slice of pie costs \$0.80 and a cookie costs \$0.30. How many slices of pie did Ms. Dunn buy?
- A. 7
 - B. 10
 - C. 12
 - D. 17
180. At a concession stand, Parker bought 3 hot dogs and 2 sodas for \$12.15. Tax is included in the price. A hot dog cost \$0.80 more than a soda. What is the cost of one hot dog and one soda?
- A. \$3.90
 - B. \$4.70
 - C. \$5.50
 - D. \$7.30
181. A boat traveled 21 miles upstream on a river in 7 hours. The return trip took the boat 3 hours. What is the rate of the current, in miles per hour?
- A. 2
 - B. 3
 - C. 5
 - D. 7
182. At an airport restaurant, 2 sodas and 4 hamburgers cost \$12.00. An order of 4 sodas and 2 hamburgers costs \$9.00. How much does one hamburger cost?
- A. \$1.00
 - B. \$2.00
 - C. \$2.50
 - D. \$3.00

183. Kathy has \$2 less than 3 times the amount of money Jason has. Together, they have \$34. How much money does Kathy have?

- A. \$8
- B. \$9
- C. \$25
- D. \$26

184. The length of a rectangle is three times longer than the width. The perimeter of the rectangle is 40 inches. What is the length of the rectangle in inches?

- A. 5
- B. 10
- C. 15
- D. 30

185. The Bright Star Video Club offers the two membership plans described below.

Plan A:	\$50 yearly membership fee and \$2 for each video rental
Plan B:	\$10 yearly membership fee and \$4 for each video rental

Greg is planning to enroll in one of these plans. For how many video rentals would the total cost of Plan A be equal to the total cost of Plan B?

- A. 20
- B. 30
- C. 40
- D. 50

186. An airplane trip takes 5 hours to fly 2250 kilometers against the wind. The return trip with the wind takes only 3 hours. What would be the speed, in kilometers per hour, of the airplane on the same trip traveling when the air is still?

- A. 150
- B. 450
- C. 600
- D. 750

187. Hassan paid \$18.00 to buy 4 paperback books and 2 hardcover books. Aviv paid \$36.25 to buy 5 paperback books and 5 hardcover books. The prices for all hardcover books were the same, and the prices for all paperback books were the same. What was the price of a hardcover book?

- A. \$7.25
- B. \$5.50
- C. \$4.50
- D. \$1.75

188. The length of a rectangle is 4 centimeters longer than the width of the rectangle. The perimeter of the rectangle is 88 centimeters. What is the area of the rectangle, in square centimeters?
- A. 400
 - B. 480
 - C. 525
 - D. 576
189. The perimeter of a rectangular room is 52 feet. The length is 2 more than the width. What is the width of the room?
- A. 10 feet
 - B. 12 feet
 - C. 13 feet
 - D. 14 feet
190. Dorinda worked 2 part-time jobs and earned \$234.50 for working a total of 30 hours at both jobs. She is paid \$7.50 per hour at Job A and \$8.00 per hour at Job B. How many hours did Dorinda work at Job A?
- A. 19
 - B. 15
 - C. 11
 - D. 8
191. Jason can run 4 miles per hour faster than Roger. If Jason runs 30 miles in the time it takes Roger to run 18 miles, how fast is Roger running?
- A. 3 mph
 - B. 6 mph
 - C. 10 mph
 - D. 24 mph
192. The length of a rectangle is 8 cm more than the width. The perimeter of the rectangle is 64 cm. What is the length of the rectangle?
- A. 20 cm
 - B. 22 cm
 - C. 24 cm
193. Marcel has a collection of 1,456 French and Canadian coins. He has 2.5 times as many French coins as Canadian coins. How many French coins does Marcel have in his collection?
- A. 416
 - B. 582
 - C. 874
 - D. 1040

194. **Chauncey has 42 coins, all dimes and quarters. The total value of all these coins is \$5.70. How many dimes does he have?**
- A. 32
 - B. 22
 - C. 21
 - D. 10
195. **Mary bought a blouse and a sweater for a total price of \$74. The price of the sweater was \$8 more than twice the price of the blouse. What was the price of the blouse?**
- A. \$22
 - B. \$33
 - C. \$37
 - D. \$52
196. **On weekdays, a movie theater charges different rates for adults and children. If 3 adults and 2 children go for a movie on a weekday, the total cost of the tickets is \$31. If 2 adults and 3 children go on a weekday, the total cost of the tickets is \$29. If a group of adults and 6 children go to the movie theater on a weekday and pay \$58 for tickets, how many adults are in this group?**
- A. 4
 - B. 5
 - C. 7
 - D. 8
197. **An airplane takes 7 hours to fly 3500 kilometers against the wind. The return trip with the wind takes only 5 hours. What is the speed, in kilometers per hour, of the airplane in still air?**
- A. 700
 - B. 600
 - C. 500
 - D. 100
198. **Last year, Ms. Nguyen invested \$9,500. Some of her money was invested in certificates of deposits paying 4% annually and the rest was invested in stocks paying 8% annually. She received a total of \$600 from these investments for the year. How much did she invest in the certificates of deposit paying 4%?**
- A. \$5,500
 - B. \$5,050
 - C. \$4,750
 - D. \$4,000

199. Mia works two part-time jobs for a total of 25 hours per week. She wrote and solved the following equations to determine how many hours she worked at each job during a week in which she earned \$301.

$$x + y = 25 \qquad 10x + 13y = 301$$

Mia solved the first equation for y and substituted into the second equation. The solution she found was $x = 8$. Which statement below best describes how much Mia earned at each job?

- A. Mia earned \$104 from one job, and \$197 from the other job.
 - B. Mia earned \$80 from one job, and \$221 from the other job.
 - C. Mia earned \$91 from one job, and \$110 from the other job.
 - D. Mia earned \$141 from one job, and \$160 from the other job.
200. Alan has \$14.40 in quarters and dimes at the end of a fundraiser. In all, there are 87 coins. He used the two equations below to describe the situation.

$$q + d = 87 \qquad 0.25q + 0.10d = 14.40$$

Alan solved the system of equations and found that there were 38 quarters and 49 dimes. Which option below best explains why Alan's solution is correct?

- A. The solution is correct because $38 + 49 = 87$.
 - B. The solution is correct because $0.25 \times 38 + 0.10 \times 49 = 14.40$.
 - C. The solution is correct because $38 + 49 = 87$ and $0.25 \times 49 + 0.10 \times 38 = 14.40$.
 - D. The solution is correct because $38 + 49 = 87$ and $0.25 \times 38 + 0.10 \times 49 = 14.40$.
201. Jonathan and Amber went to the store together to buy school supplies. Jonathan purchased 2 notebooks and 5 elastic book covers for \$6.75. Amber purchased 4 notebooks and 2 elastic book covers for \$7.50. What is the price of a single notebook?
- A. \$0.75
 - B. \$0.96
 - C. \$1.50
 - D. \$1.75

202. Farmer McDonald has 300 acres of land and \$117,335 available to produce corn and soybeans. Each of these acres is used to produce one of these two crops. It costs the farmer \$349 per acre to produce soybeans and \$444 per acre to produce corn. If all the money is used for these two crops, how many acres of soybeans are produced by Farmer McDonald?
- A. 131
 - B. 133
 - C. 148
 - D. 167

203. Lincoln High School's basketball team won the regional playoffs scoring a total of 60 points, not including free throws. The team made a total of 26 baskets; some were 2-point shots, and the rest were 3-point shots. How many 2-point shots did the team make?
- A. 8
 - B. 12
 - C. 13
 - D. 18
204. Brad is paddling a boat 2 miles upstream. The trip takes 4 hours. He paddles the boat back downstream to his original starting point in 2 hours. How fast, in miles per hour (mph), is the current moving?
- A. $\frac{1}{4}$ mph
 - B. $\frac{3}{4}$ mph
 - C. 1 mph
 - D. 2 mph
205. During the past year, Ms. Abalos invested \$8,500. Some of her money was invested in stocks paying 6% annually and the rest was invested in bonds paying 8% annually. She received a total of \$600 from these investments for the year. How much did she invest in the stocks paying 6%?
- A. \$4,000
 - B. \$4,250
 - C. \$4,500
 - D. \$4,550
206. Sam read 3 times as many pages in his history textbook on Monday night as he read on Tuesday night. Altogether, he read 56 pages. How many pages did Sam read on Monday night?
- A. 14
 - B. 19
 - C. 28
 - D. 42
207. It costs \$19.00 to purchase 2 pounds of coffee and 3 pounds of tea while it is \$41.50 to purchase 5 pounds of coffee and 6 pounds of tea. How much per pound is the price of coffee?
- A. \$3.50
 - B. \$4.00
 - C. \$7.50
 - D. \$24.50

208. Last year Ms. Abalos invested \$9,500. Some of her money was invested in certificates of deposits paying 5% annually and the rest was invested in stocks paying 9.5% annually. She received a total of \$700 from these investments for the year. How much did she invest in the certificates of deposit paying 5%?
- A. \$4,500
 - B. \$4,750
 - C. \$5,000
 - D. \$5,100
209. Edna worked 2 part-time jobs and earned \$226.00 for working a total of 26 hours. She is paid \$8.00 per hour at Job A and \$9.00 per hour at Job B. How many hours did Edna work at Job A?
- A. 8
 - B. 10
 - C. 13
 - D. 18
210. Jesse bought some pencils and erasers for \$5.20. He bought 10 more pencils than erasers. A pencil costs \$0.15, and an eraser costs \$0.22. How many erasers did Jesse buy?
- A. 20
 - B. 16
 - C. 14
 - D. 10
211. Ms. Kincaid keeps a supply of dimes and quarters in her car to pay for highway tolls. A week's supply of toll coins contains 5 more dimes than quarters and totals \$4.00. How many quarters does Ms. Kincaid spend on highway tolls in one week?
- A. 10
 - B. 15
 - C. 16
 - D. 40
212. A barge traveled 16 miles upstream on a river in 8 hours. The return trip took the barge 4 hours. What is the rate of the current, in miles per hour?
- A. 1
 - B. 2
 - C. 3
 - D. 4

213. Jesse bought 10 more pencils than erasers. A pencil costs \$0.15, and an eraser costs \$0.22. He paid a total of \$4.46. How many erasers did Jesse buy?
- A. 8
 - B. 12
 - C. 18
 - D. 22
214. During the past year, Ms. Nguyen invested \$8,500. Some of her money was invested in a savings account paying 4% annually and the rest was invested in a different savings account paying 8% annually. She received a total of \$500 from these investments for the year. How much did she invest in the savings account paying 4%?
- A. \$2,000
 - B. \$4,000
 - C. \$4,250
 - D. \$4,500
215. Sports Warehouse had a sale on two models of baseball gloves. Model A sold for \$30.00, and model B sold for \$45.25. A total of 52 gloves was sold. The total amount of sales earned on the gloves, excluding tax, was \$2,078.50. How many model B baseball gloves were sold?
- A. 18
 - B. 22
 - C. 29
 - D. 34
216. The members of a student council held a car wash to earn money for a field trip. The equations represent how they calculated their earnings.

$$5c + 8v = 234$$

$$c = 2v$$

If c represents the number of cars and v represents the number of vans, which pair of sentences best describes the results of the fundraiser?

- A. They charged \$5 per car, \$8 per van, and earned a total of \$234. They washed twice as many cars as vans.
- B. They washed five cars and eight vans, and earned a total of \$234. They charged twice as much for vans.
- C. They charged \$5 per car, \$8 per van, and earned a total of \$234. They washed twice as many vans as cars.
- D. They washed eight cars and five vans, and earned a total of \$234. They charged twice as much for cars.

217. Craig has two jobs, Job A and Job B. The table shows the hours he worked at each job per week and his total salary for both jobs during each of two weeks.

Craig's Working Hours and Salary

Week	Number of Hours at Job A	Number of Hours at Job B	Total Salary
First	15	30	\$570
Second	15	32	\$594

If his salary at each job is based on a constant hourly rate, what is Craig's hourly rate for working at Job B?

- A. \$12
- B. \$14
- C. \$19
- D. \$24

218. Amy is five years older than her brother Jack. In two years, Amy will be twice Jack's age. These relationships are described with the two equations below.

$$a = j + 5 \qquad (a + 2) = 2(j + 2)$$

The solution to this system of equations is $j = 3$ and $a = 8$. Which option below correctly interprets this solution?

- A. Jack is currently 3 years old, and Amy is currently 8 years old.
- B. Jack is currently 8 years old, and Amy is currently 3 years old.
- C. Jack is currently 5 years old, and Amy is currently 10 years old.
- D. Jack is currently 10 years old, and Amy is currently 5 years old.

219. A canoe traveled 24 miles upstream on a river in 8 hours. The return trip took the canoe 4 hours. What is the rate of the canoe in still water, in miles per hour?

- A. 1.5
- B. 3
- C. 4.5
- D. 6

220. Bernie paid \$14.50 to buy 5 paperback books and 1 hardcover book. Paz paid \$30.50 to buy 4 paperback books and 5 hardcover books. The prices for all hardcover books were the same, and the prices for all paperback books were the same. What was the price of a hardcover book?

- A. \$2.00
- B. \$2.90
- C. \$4.50
- D. \$7.65

221. Zelda bought a blouse and a sweater for a total price of \$79. The price of the sweater was \$4 more than twice the price of the blouse. What was the price of the blouse?

- A. \$19.75
- B. \$25.00
- C. \$39.50
- D. \$54.00

222. A river current is flowing at a rate of 2 miles per hour. A motorboat in the river travels 48 miles upstream in 4 hours. It makes the return trip downstream in 3 hours. What is the average rate of the boat in still water?
- A. 4 mph
 - B. 8 mph
 - C. 10 mph
 - D. 14 mph
223. The Silver River has a current of 4 miles per hour. If a boat travels 25 miles downstream in the same time that it takes to travel 15 miles upstream, what is the speed of the boat in still water?
- A. 1 mph
 - B. 10 mph
 - C. 16 mph
 - D. 20 mph
224. A raft traveled 24 miles upstream on a river in 6 hours. The return trip took the raft 3 hours. What is the rate of the raft in still water, in miles per hour?
- A. 2
 - B. 4
 - C. 6
 - D. 8
225. An airplane takes 7 hours to fly 2,800 kilometers against the wind. The return trip with the wind takes only 4 hours. What is the speed, in kilometers per hour, of the airplane in still air?
- A. 150
 - B. 400
 - C. 550
 - D. 700
226. Janet is rowing 12 miles upstream. The trip takes 6 hours. She rows back downstream to her original starting point in 3 hours. How fast, in miles per hour, is the current traveling?
- A. 1
 - B. 1.6
 - C. 3
 - D. 6
227. Adrian is rowing a boat 1 mile upstream. The trip takes 2 hours. He rows the boat back downstream to his original starting point in 1 hour. How fast, in miles per hour (mph), is the current traveling?
- A. $\frac{1}{4}$ mph
 - B. $\frac{1}{2}$ mph
 - C. $\frac{2}{3}$ mph
 - D. 2 mph

228. Peter worked 2 part-time jobs and earned \$189.00 for working a total of 24 hours at both jobs. He is paid \$6.00 per hour at Job A and \$9.00 per hour at Job B. How many hours did Peter work at Job A?

- A. 15
- B. 12
- C. 9
- D. 6

229. Pencils cost \$0.10 and erasers cost \$0.25. Steve bought 5 more pencils than erasers. He spent a total of \$1.55. How many erasers did Steve buy?

- A. 2
- B. 3
- C. 4

230. Last year Ms. DiSimone invested \$9,500. Some of her money was invested in stocks paying 5% annually and the rest was invested in bonds paying 10% annually. She received a total of \$700 from these investments for the year. How much did she invest in the stocks paying 5%?

- A. \$4,500
- B. \$4,750
- C. \$5,000
- D. \$5,100

231. Last year Ms. DiSimone invested \$10,000. Some of her money was invested in stocks paying 4% annually and the rest was invested in bonds paying 9% annually. She received a total of \$600 from these investments for the year. How much did she invest in the stocks paying 4%?

- A. \$4,000
- B. \$5,000
- C. \$5,300
- D. \$6,000

232. Abbie wrote the following set of equations to determine the change she had in her money jar.

$$25x + 10y = 920 \qquad x + y = 59$$

She solved the pair of equations, and found $x = 22$ and $y = 37$. Which statement best interprets her solution?

- A. Abbie found that the money jar contained 22 quarters and 37 dimes.
- B. Abbie found that the money jar contained 22 dimes and 37 quarters.
- C. Abbie found that the money jar contained 22 quarters and 37 nickels.
- D. Abbie found that the money jar contained 22 nickels and 37 quarters.

233. During the past year, Ms. Nguyen invested \$9,000. Some of her money was invested in certificates of deposits paying 4% annually and the rest was invested in stocks paying 7.5% annually. She received a total of \$500 from these investments for the year. How much did she invest in the certificates of deposit paying 4%?
- A. \$5,000
 - B. \$4,750
 - C. \$4,500
 - D. \$4,000

234. Deana bought 12 packages of batteries. Some of the packages contained 4 batteries and some contained 6 batteries. She bought a total of 62 batteries. How many packages did Deanna buy that contained 6 batteries?
- A. 3
 - B. 5
 - C. 6
 - D. 7

235. Last year, Ms. Nguyen invested \$9,000. Some of her money was invested in certificates of deposits paying 5% annually and the rest was invested in stocks paying 10% annually. She received a total of \$700 from these investments for the year. How much did she invest in the certificates of deposit paying 5%?
- A. \$4,000
 - B. \$4,500
 - C. \$4,850
 - D. \$5,000

236. Mike opened a savings account with \$200 and deposits \$80 into the account every week. Ben opened a savings account with \$350 and deposits \$160 into the account every two weeks. The equations below describe the balance in each account.

$$b = 200 + 80n$$

$$b = 350 + 160t$$

$$n = 2t$$

Mike and Ben solve the system of equations and find the result $150 = 0$. Which statement below gives the best interpretation of this result?

- A. The system was solved incorrectly, as illustrated by the incorrect equality in the result.
 - B. The system was solved incorrectly. They should have found the solution $n = 150$.
 - C. The system was solved correctly, but the two lines are parallel so there is no solution.
 - D. The system was solved correctly, but the two lines are coincident, so there are infinitely many solutions.
237. Trent has a collection of 198 baseball and basketball trading cards. He has 4.5 times as many baseball cards as basketball cards. How many baseball cards does Trent have in his collection?
- A. 36
 - B. 44
 - C. 154
 - D. 162

238. During the past year, Ms. Abalos invested \$9,000. Some of her money was invested in a savings account paying 5% annually and the rest was invested in a different savings account paying 8% annually. She received a total of \$600 from these investments for the year. How much did she invest in the savings account paying 5%?
- A. \$4,000
B. \$4,500
C. \$4,800
D. \$5,000
239. Tristan paid \$17.50 to buy 2 pounds of peanuts and 3 pounds of cashews. Rivka paid \$19.00 to buy 5 pounds of peanuts and 2 pounds of cashews. If both people paid the same price per pound, what was the price per pound for the cashews?
- A. \$2.00
B. \$3.80
C. \$4.50
D. \$8.75
240. Kurt has a collection of 155 United States and Canadian stamps. He has 1.5 times as many United States stamps as Canadian stamps. How many United States stamps does Kurt have in his collection?
- A. 52
B. 62
C. 93
D. 103
241. Jeremy plays basketball for the Varsity team. Last season, he scored a total of 1489 points consisting of 2-point and 3-point baskets. If Jeremy made a total of 640 baskets, how many of the baskets counted 3 points?
- A. 209
B. 431
C. 1227
D. 1489
242. Shannon is towing a boat 19.2 miles upstream. The trip takes 6 hours. She tows the boat the same distance downstream in only 4 hours. What is the rate, in miles per hour, of the current?
- A. 0.8
B. 1.9
C. 3.2
D. 4.0
243. Ned has a jar of nickels and dimes that were collected for a charity. The two equations represent the change in the jar.

$$10x + 5y = 1980 \qquad x + y = 217$$

Jan solves the equations and finds the solution to be the ordered pair (38, 179). Which of the following options best describes the reasonableness of Jan's solution?

- A. The ordered pair is a solution to the first equation, but not the second.
B. The ordered pair is a solution to the second equation, but not the first.
C. The ordered pair solves both the first and the second equations.
D. The ordered pair is not a solution to either equation.

244. Damien has 30 coins, all nickels and dimes. The total value of all these coins is \$2.05. How many nickels does he have?

- A. 19
- B. 15
- C. 11
- D. 8

245. Shelley and Rachel live 252 miles apart. They leave their homes at the same time, planning to meet at a point between them. If Shelley travels 55 mph and Rachel travels 50 mph, how long will it take for them to meet?

- A. 2.4 hours
- B. 2.6 hours
- C. 4.6 hours
- D. 5 hours

246. Kelvin has 36 coins, all nickels and quarters. The total value of all these coins is \$3.80. How many nickels does he have?

- A. 10
- B. 16
- C. 18
- D. 26

247.

248.

249.