1. **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.

2. **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: $y = 40x$

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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.

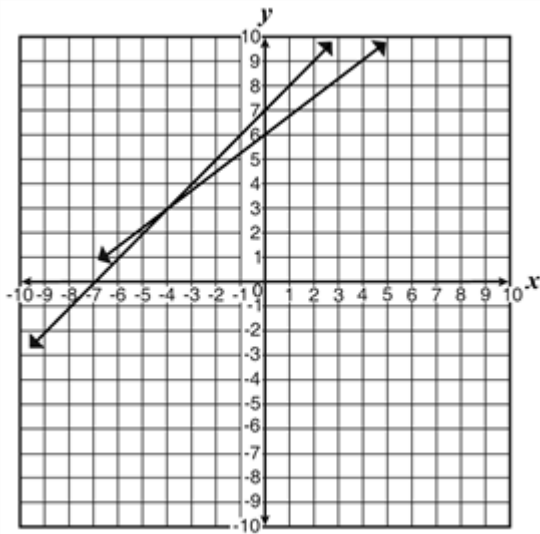**D.** The point (3, 120) is the solution for the system of equations.

3. A system of linear equations is graphed below.
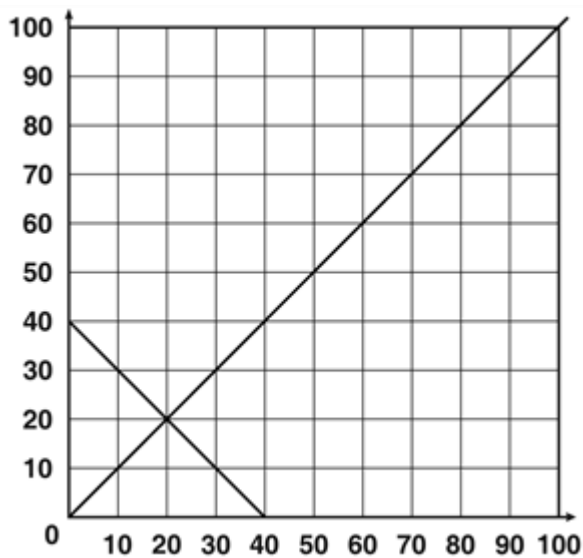
Which coordinate point represents the solution?

A. (2, 2)

B. (0, 40)

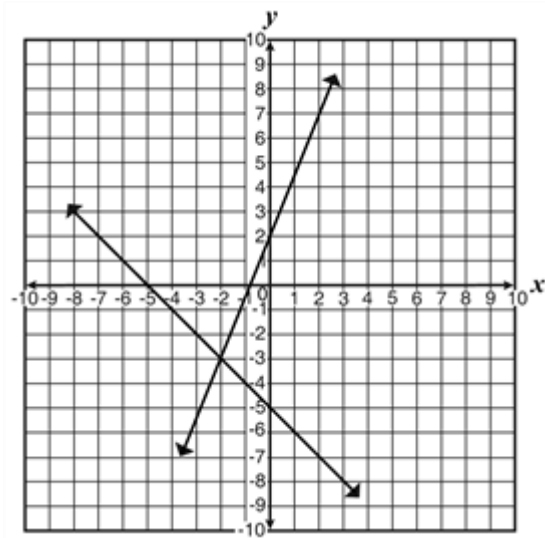**C.** (40, 0)

D. (20, 20)

4.

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. $x = -4, y = 3$

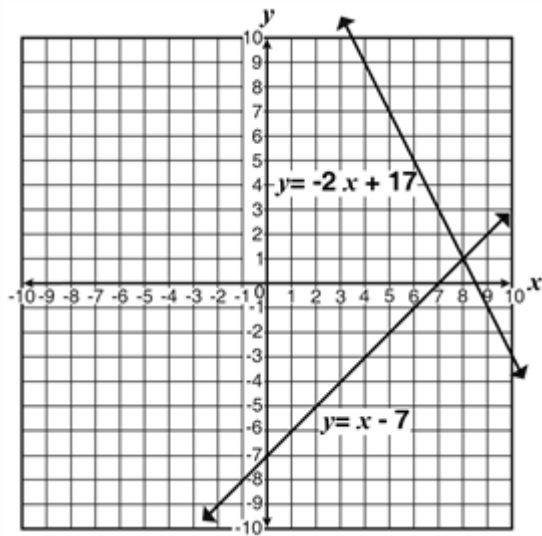**5.** The graph of a pair of linear equations is shown in the coordinate plane below.

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

Which value is the *x*-coordinate of the solution?

A. -5

B. -3

C. -2

D. 0

6. **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. $(8, 1)$

7. **A linear system of equations is graphed below.**

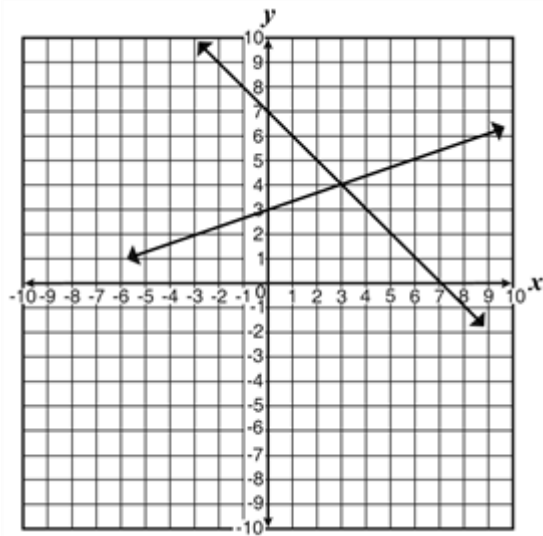$$\begin{cases} y = 3x \\ y = \dfrac{1}{2}x + 5 \end{cases}$$
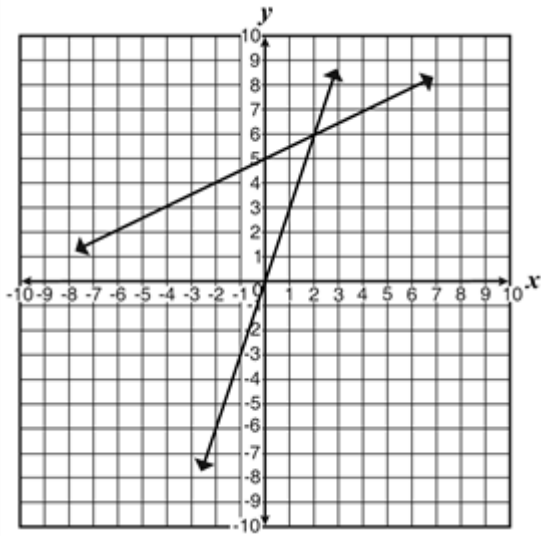
Which ordered pair is the solution to the system?

A. $(0, 0)$

B. $(0, 5)$

C. $(2, 6)$

D. $(6, 2)$

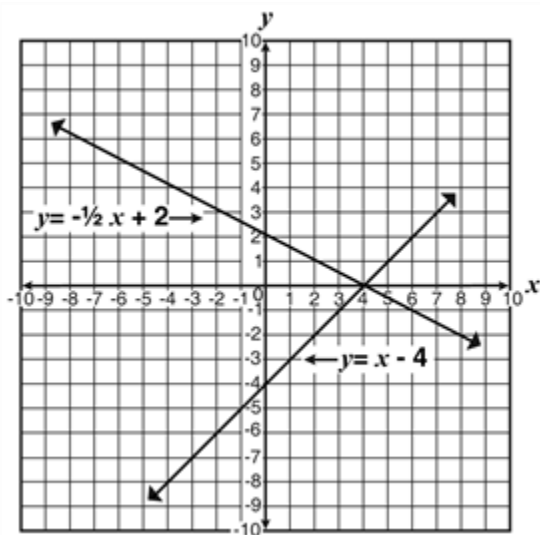8. **A pair of linear equations is graphed below.**

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

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

A. $x = 0, y = 3$

B. $x = 3, y = 4$
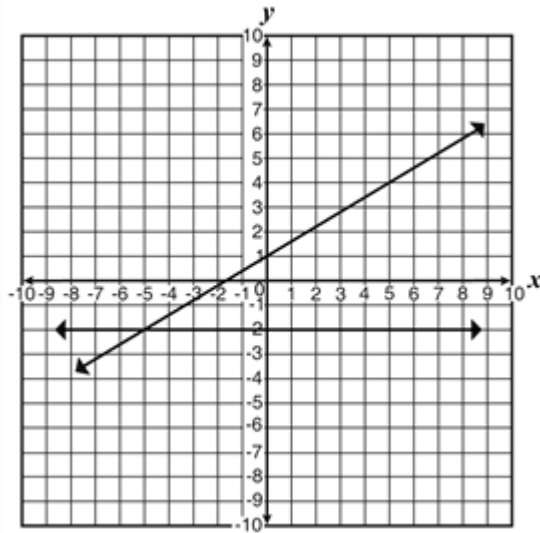
C. $x = 4, y = 3$

D. $x = 3, y = 7$

9. **A system of linear equations is graphed below.**

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

$y = x - 4$

Which coordinate point represents the solution?

A. $(0, 4)$

B. $(4, 0)$

C. $(0, -4)$
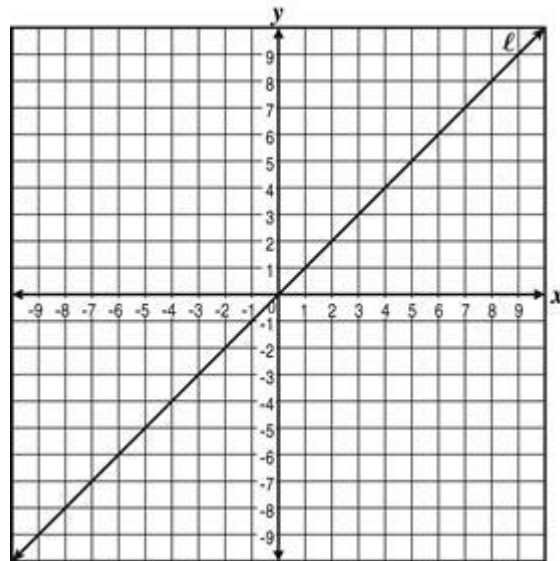
D. $(4, -4)$

10.
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. $(0, -2)$

11. 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

12. Darren graphed the system of linear equations shown and determined that there is no possible solution.
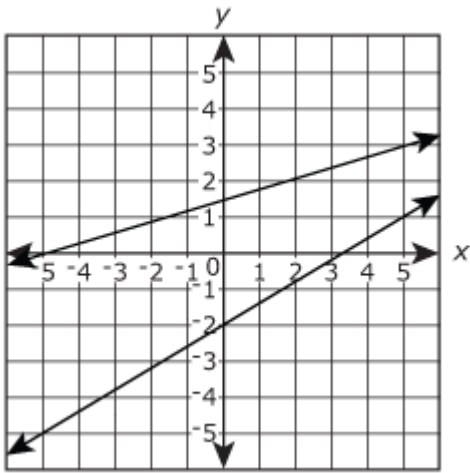
Which statement is true?

A. Darren is correct because the lines are parallel.

B. Darren is correct because both lines have different slopes.

C. Darren is incorrect because both lines have the same slope.

D. Darren is incorrect because the lines intersect at a single point.

13. A system of linear equations is graphed on the coordinate grid shown.

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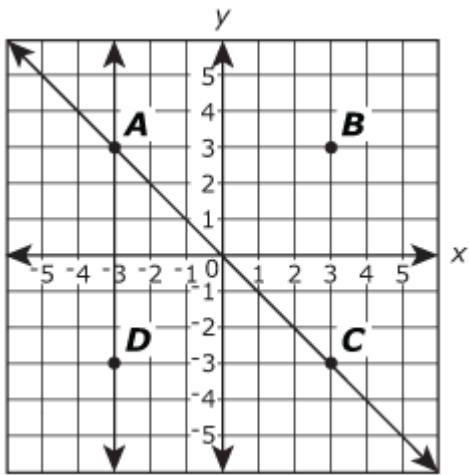
Which point represents the solution to the system?

A. Point A
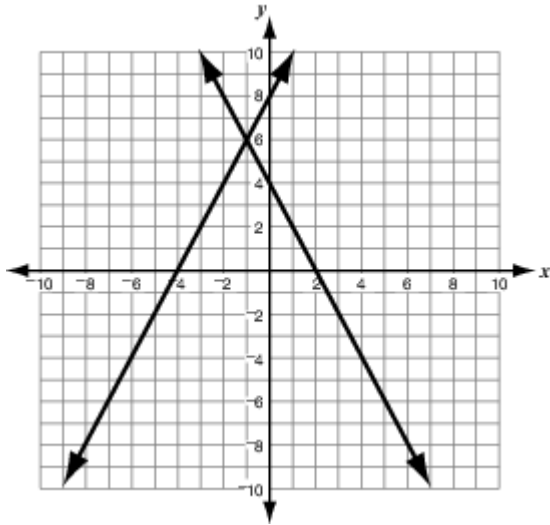
B. Point B

C. Point C

D. Point D

14. 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. $(0.5, -0.5)$

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D. $(2, -14)$

15. 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. $(4, 8)$

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

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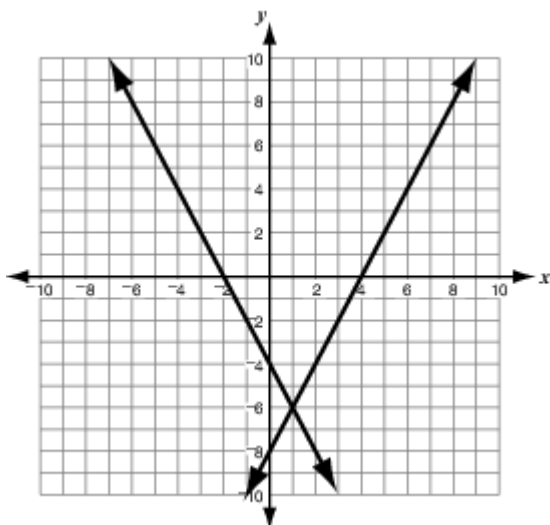$$\begin{cases} -8x + 2y = 4 \\ 6x + 3y = -9 \end{cases}$$

A. $\left(-\dfrac{5}{6}, -\dfrac{4}{3}\right)$

B. $\left(-\dfrac{1}{2}, -\dfrac{3}{2}\right)$

C. $\left(\dfrac{1}{2}, 4\right)$

D. $\left(\dfrac{5}{6}, \dfrac{16}{3}\right)$

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

A. $(-6, 1)$

B. $(-2, 4)$

C. $(1, -6)$

D. $(-4, -8)$

18. 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. $(-1, -2)$

19. 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?

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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.

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

A. $(-3.5, 0)$

B. $(0, -7.5)$

C. $(3, -5)$

D. $(9, 0)$

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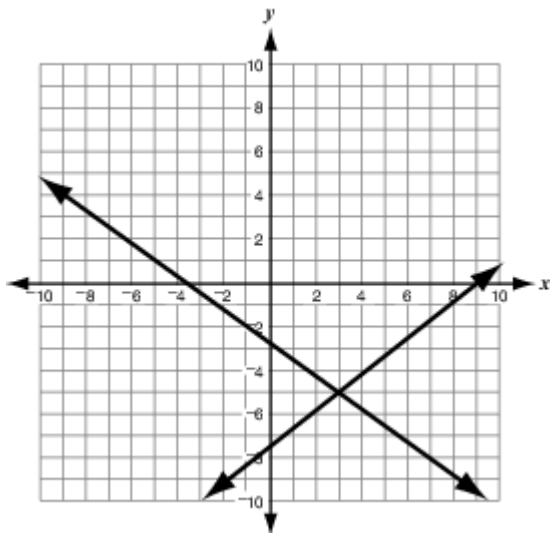
21. At what point do the graphs of the lines $y = 9x + 2$ and $y = -3x + 12$ intersect?
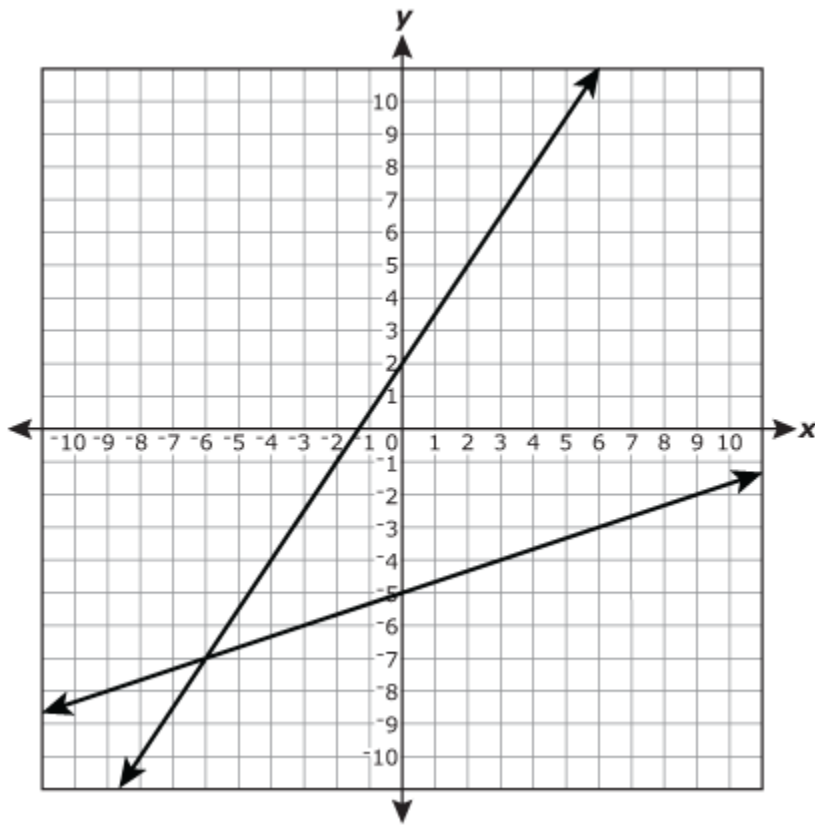
A. $\left(-\dfrac{5}{3}, -13\right)$

B. $\left(-\dfrac{7}{6}, 15\dfrac{1}{2}\right)$

C. $\left(\dfrac{5}{6}, 9\dfrac{1}{2}\right)$

D. $\left(\dfrac{5}{3}, 17\right)$

22. 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. $(2, -5)$