

Identifying Point of Intersection with Equations

Name: _____

For each system of equations determine the point of intersection in a graph.

Answers

1)
$$\begin{cases} y = -2.5x + 7 \\ y = 0.5x + 1 \end{cases}$$

2)
$$\begin{cases} y = -0.2x + 4 \\ y = -0.3x + 3 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = 0.75x - 6 \\ y = -0.25x - 2 \end{cases}$$

4)
$$\begin{cases} y = 0.2x + 1 \\ y = 0.5x + 4 \end{cases}$$

5)
$$\begin{cases} y = 0.5x - 8 \\ y = -4.5x + 2 \end{cases}$$

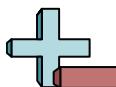
6)
$$\begin{cases} y = -0.5x + 1 \\ y = -0.2x + 4 \end{cases}$$

7)
$$\begin{cases} y = 0.3x - 5 \\ y = 0.7x - 1 \end{cases}$$

8)
$$\begin{cases} y = 2.25x + 8 \\ y = -1.25x - 6 \end{cases}$$

9)
$$\begin{cases} y = -0.75x + 1 \\ y = -1.5x - 5 \end{cases}$$

10)
$$\begin{cases} y = -0.25x + 3 \\ y = -3.25x - 9 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

For each system of equations determine the point of intersection in a graph.

Answers

1)
$$\begin{cases} y = -2.5x + 7 \\ y = 0.5x + 1 \end{cases}$$

$$-2.5x+7 = 0.5x+1$$

$$-3x = -6$$

$$1x = 2$$

$$y = (-2.5 \times 2) + 7$$

$$y = (0.5 \times 2) + 1$$

2)
$$\begin{cases} y = -0.2x + 4 \\ y = -0.3x + 3 \end{cases}$$

$$-0.2x+4 = -0.3x+3$$

$$0.1x = -1$$

$$1x = -10$$

$$y = (-0.2 \times -10) + 4$$

$$y = (-0.3 \times -10) + 3$$

1. (2, 2)2. (-10, 6)3. (4, -3)4. (-10, -1)5. (2, -7)6. (-10, 6)7. (-10, -8)8. (-4, -1)9. (-8, 7)10. (-4, 4)

3)
$$\begin{cases} y = 0.75x - 6 \\ y = -0.25x - 2 \end{cases}$$

$$0.75x - 6 = -0.25x - 2$$

$$1x = 4$$

$$1x = 4$$

$$y = (0.75 \times 4) - 6$$

$$y = (-0.25 \times 4) - 2$$

4)
$$\begin{cases} y = 0.2x + 1 \\ y = 0.5x + 4 \end{cases}$$

$$0.2x + 1 = 0.5x + 4$$

$$-0.3x = 3$$

$$1x = -10$$

$$y = (0.2 \times -10) + 1$$

$$y = (0.5 \times -10) + 4$$

5)
$$\begin{cases} y = 0.5x - 8 \\ y = -4.5x + 2 \end{cases}$$

$$0.5x - 8 = -4.5x + 2$$

$$5x = 10$$

$$1x = 2$$

$$y = (0.5 \times 2) - 8$$

$$y = (-4.5 \times 2) + 2$$

6)
$$\begin{cases} y = -0.5x + 1 \\ y = -0.2x + 4 \end{cases}$$

$$-0.5x + 1 = -0.2x + 4$$

$$-0.3x = 3$$

$$1x = -10$$

$$y = (-0.5 \times -10) + 1$$

$$y = (-0.2 \times -10) + 4$$

7)
$$\begin{cases} y = 0.3x - 5 \\ y = 0.7x - 1 \end{cases}$$

$$0.3x - 5 = 0.7x - 1$$

$$-0.4x = 4$$

$$1x = -10$$

$$y = (0.3 \times -10) - 5$$

$$y = (0.7 \times -10) - 1$$

8)
$$\begin{cases} y = 2.25x + 8 \\ y = -1.25x - 6 \end{cases}$$

$$2.25x + 8 = -1.25x - 6$$

$$3.5x = -14$$

$$1x = -4$$

$$y = (2.25 \times -4) + 8$$

$$y = (-1.25 \times -4) - 6$$

9)
$$\begin{cases} y = -0.75x + 1 \\ y = -1.5x - 5 \end{cases}$$

$$-0.75x + 1 = -1.5x - 5$$

$$0.75x = -6$$

$$1x = -8$$

$$y = (-0.75 \times -8) + 1$$

$$y = (-1.5 \times -8) - 5$$

10)
$$\begin{cases} y = -0.25x + 3 \\ y = -3.25x - 9 \end{cases}$$

$$-0.25x + 3 = -3.25x - 9$$

$$3x = -12$$

$$1x = -4$$

$$y = (-0.25 \times -4) + 3$$

$$y = (-3.25 \times -4) - 9$$