



Identifying Point of Intersection with Equations

Name: _____

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

Answers

1)
$$\begin{cases} y = -0.1x - 3 \\ y = 0.6x + 4 \end{cases}$$

2)
$$\begin{cases} y = -0.1x - 9 \\ y = 0.1x - 7 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = -4.25x + 9 \\ y = -0.75x - 5 \end{cases}$$

4)
$$\begin{cases} y = -1.5x + 8 \\ y = -0.25x - 2 \end{cases}$$

5)
$$\begin{cases} y = -2.5x - 8 \\ y = -1.5x - 6 \end{cases}$$

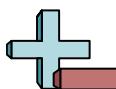
6)
$$\begin{cases} y = -2.25x - 5 \\ y = -2.5x - 6 \end{cases}$$

7)
$$\begin{cases} y = -2.25x - 5 \\ y = -2.75x - 7 \end{cases}$$

8)
$$\begin{cases} y = -2.5x - 5 \\ y = -9.5x + 9 \end{cases}$$

9)
$$\begin{cases} y = 0.7x - 2 \\ y = -0.4x + 9 \end{cases}$$

10)
$$\begin{cases} y = -0.1x + 4 \\ y = 0.8x - 5 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

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

1)
$$\begin{cases} y = -0.1x - 3 \\ y = 0.6x + 4 \end{cases}$$

$$-0.1x - 3 = 0.6x + 4$$

$$-0.7x = 7$$

$$1x = -10$$

$$y = (-0.1 \times -10) - 3$$

$$y = (0.6 \times -10) + 4$$

2)
$$\begin{cases} y = -0.1x - 9 \\ y = 0.1x - 7 \end{cases}$$

$$-0.1x - 9 = 0.1x - 7$$

$$-0.2x = 2$$

$$1x = -10$$

$$y = (-0.1 \times -10) - 9$$

$$y = (0.1 \times -10) - 7$$

3)
$$\begin{cases} y = -4.25x + 9 \\ y = -0.75x - 5 \end{cases}$$

$$-4.25x + 9 = -0.75x - 5$$

$$-3.5x = -14$$

$$1x = 4$$

$$y = (-4.25 \times 4) + 9$$

$$y = (-0.75 \times 4) - 5$$

4)
$$\begin{cases} y = -1.5x + 8 \\ y = -0.25x - 2 \end{cases}$$

$$-1.5x + 8 = -0.25x - 2$$

$$-1.25x = -10$$

$$1x = 8$$

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

$$y = (-0.25 \times 8) - 2$$

5)
$$\begin{cases} y = -2.5x - 8 \\ y = -1.5x - 6 \end{cases}$$

$$-2.5x - 8 = -1.5x - 6$$

$$-1x = 2$$

$$1x = -2$$

$$y = (-2.5 \times -2) - 8$$

$$y = (-1.5 \times -2) - 6$$

6)
$$\begin{cases} y = -2.25x - 5 \\ y = -2.5x - 6 \end{cases}$$

$$-2.25x - 5 = -2.5x - 6$$

$$0.25x = -1$$

$$1x = -4$$

$$y = (-2.25 \times -4) - 5$$

$$y = (-2.5 \times -4) - 6$$

7)
$$\begin{cases} y = -2.25x - 5 \\ y = -2.75x - 7 \end{cases}$$

$$-2.25x - 5 = -2.75x - 7$$

$$0.5x = -2$$

$$1x = -4$$

$$y = (-2.25 \times -4) - 5$$

$$y = (-2.75 \times -4) - 7$$

8)
$$\begin{cases} y = -2.5x - 5 \\ y = -9.5x + 9 \end{cases}$$

$$-2.5x - 5 = -9.5x + 9$$

$$7x = 14$$

$$1x = 2$$

$$y = (-2.5 \times 2) - 5$$

$$y = (-9.5 \times 2) + 9$$

9)
$$\begin{cases} y = 0.7x - 2 \\ y = -0.4x + 9 \end{cases}$$

$$0.7x - 2 = -0.4x + 9$$

$$1.1x = 11$$

$$1x = 10$$

$$y = (0.7 \times 10) - 2$$

$$y = (-0.4 \times 10) + 9$$

10)
$$\begin{cases} y = -0.1x + 4 \\ y = 0.8x - 5 \end{cases}$$

$$-0.1x + 4 = 0.8x - 5$$

$$-0.9x = -9$$

$$1x = 10$$

$$y = (-0.1 \times 10) + 4$$

$$y = (0.8 \times 10) - 5$$

Answers1. (-10, -2)2. (-10, -8)3. (4, -8)4. (8, -4)5. (-2, -3)6. (-4, 4)7. (-4, 4)8. (2, -10)9. (10, 5)10. (10, 3)