



## Identifying Point of Intersection with Equations

Name: \_\_\_\_\_

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

Answers

1) 
$$\begin{cases} y = -1.2x + 6 \\ y = -0.6x + 0 \end{cases}$$

2) 
$$\begin{cases} y = -0.2x - 9 \\ y = 0.4x - 6 \end{cases}$$

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

3) 
$$\begin{cases} y = 1.7x - 9 \\ y = -0.1x + 9 \end{cases}$$

4) 
$$\begin{cases} y = -0.25x + 1 \\ y = 0.5x - 2 \end{cases}$$

5) 
$$\begin{cases} y = 0.2x + 1 \\ y = 0.4x + 2 \end{cases}$$

6) 
$$\begin{cases} y = -0.3x - 4 \\ y = -0.2x - 3 \end{cases}$$

7) 
$$\begin{cases} y = 0.75x - 5 \\ y = 3.75x + 7 \end{cases}$$

8) 
$$\begin{cases} y = 0.4x - 3 \\ y = 0.8x + 1 \end{cases}$$

9) 
$$\begin{cases} y = -0.3x - 7 \\ y = 0.5x + 1 \end{cases}$$

10) 
$$\begin{cases} y = 0.25x - 4 \\ y = 0.75x - 6 \end{cases}$$



## Identifying Point of Intersection with Equations

Name: **Answer Key**

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

**Answers**

1) 
$$\begin{cases} y = -1.2x + 6 \\ y = -0.6x + 0 \end{cases}$$
  

$$-1.2x + 6 = -0.6x + 0$$
  

$$-0.6x = -6$$
  

$$1x = 10$$
  

$$y = (-1.2 \times 10) + 6$$
  

$$y = (-0.6 \times 10) + 0$$

2) 
$$\begin{cases} y = -0.2x - 9 \\ y = 0.4x - 6 \end{cases}$$
  

$$-0.2x - 9 = 0.4x - 6$$
  

$$-0.6x = 3$$
  

$$1x = -5$$
  

$$y = (-0.2 \times -5) - 9$$
  

$$y = (0.4 \times -5) - 6$$

3) 
$$\begin{cases} y = 1.7x - 9 \\ y = -0.1x + 9 \end{cases}$$
  

$$1.7x - 9 = -0.1x + 9$$
  

$$1.8x = 18$$
  

$$1x = 10$$
  

$$y = (1.7 \times 10) - 9$$
  

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

4) 
$$\begin{cases} y = -0.25x + 1 \\ y = 0.5x - 2 \end{cases}$$
  

$$-0.25x + 1 = 0.5x - 2$$
  

$$-0.75x = -3$$
  

$$1x = 4$$
  

$$y = (-0.25 \times 4) + 1$$
  

$$y = (0.5 \times 4) - 2$$

5) 
$$\begin{cases} y = 0.2x + 1 \\ y = 0.4x + 2 \end{cases}$$
  

$$0.2x + 1 = 0.4x + 2$$
  

$$-0.2x = 1$$
  

$$1x = -5$$
  

$$y = (0.2 \times -5) + 1$$
  

$$y = (0.4 \times -5) + 2$$

6) 
$$\begin{cases} y = -0.3x - 4 \\ y = -0.2x - 3 \end{cases}$$
  

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

$$-0.1x = 1$$
  

$$1x = -10$$
  

$$y = (-0.3 \times -10) - 4$$
  

$$y = (-0.2 \times -10) - 3$$

7) 
$$\begin{cases} y = 0.75x - 5 \\ y = 3.75x + 7 \end{cases}$$
  

$$0.75x - 5 = 3.75x + 7$$
  

$$-3x = 12$$
  

$$1x = -4$$
  

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

$$y = (3.75 \times -4) + 7$$

8) 
$$\begin{cases} y = 0.4x - 3 \\ y = 0.8x + 1 \end{cases}$$
  

$$0.4x - 3 = 0.8x + 1$$
  

$$-0.4x = 4$$
  

$$1x = -10$$
  

$$y = (0.4 \times -10) - 3$$
  

$$y = (0.8 \times -10) + 1$$

9) 
$$\begin{cases} y = -0.3x - 7 \\ y = 0.5x + 1 \end{cases}$$
  

$$-0.3x - 7 = 0.5x + 1$$
  

$$-0.8x = 8$$
  

$$1x = -10$$
  

$$y = (-0.3 \times -10) - 7$$
  

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

10) 
$$\begin{cases} y = 0.25x - 4 \\ y = 0.75x - 6 \end{cases}$$
  

$$0.25x - 4 = 0.75x - 6$$
  

$$-0.5x = -2$$
  

$$1x = 4$$
  

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

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

1. (10, -6)2. (-5, -8)3. (10, 8)4. (4, 0)5. (-5, 0)6. (-10, -1)7. (-4, -8)8. (-10, -7)9. (-10, -4)10. (4, -3)