



## Identifying Point of Intersection with Equations

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

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

Answers

1) 
$$\begin{cases} y = -1.2x - 6 \\ y = -0.5x + 1 \end{cases}$$

2) 
$$\begin{cases} y = 0.4x + 0 \\ y = -0.4x + 8 \end{cases}$$

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

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

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

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

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

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

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

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

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

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

3) 
$$\begin{cases} y = -0.25x - 5 \\ y = -1.5x + 0 \end{cases}$$

4) 
$$\begin{cases} y = 8.5x - 7 \\ y = 6.5x - 3 \end{cases}$$

5) 
$$\begin{cases} y = -5.5x - 7 \\ y = 2.5x + 9 \end{cases}$$

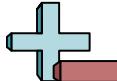
6) 
$$\begin{cases} y = 1.5x - 6 \\ y = 6.5x + 4 \end{cases}$$

7) 
$$\begin{cases} y = -0.6x - 8 \\ y = -0.2x - 6 \end{cases}$$

8) 
$$\begin{cases} y = -1.5x + 4 \\ y = -3.75x - 5 \end{cases}$$

9) 
$$\begin{cases} y = -1.75x - 6 \\ y = -1.5x - 5 \end{cases}$$

10) 
$$\begin{cases} y = -1.5x + 4 \\ y = 0.75x - 5 \end{cases}$$



## Identifying Point of Intersection with Equations

Name: **Answer Key**

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

**Answers**

1) 
$$\begin{cases} y = -1.2x - 6 \\ y = -0.5x + 1 \end{cases}$$

$$-1.2x - 6 = -0.5x + 1$$

$$-0.7x = 7$$

$$1x = -10$$

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

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

2) 
$$\begin{cases} y = 0.4x + 0 \\ y = -0.4x + 8 \end{cases}$$

$$0.4x + 0 = -0.4x + 8$$

$$0.8x = 8$$

$$1x = 10$$

$$y = (0.4 \times 10) + 0$$

$$y = (-0.4 \times 10) + 8$$

3) 
$$\begin{cases} y = -0.25x - 5 \\ y = -1.5x + 0 \end{cases}$$

$$-0.25x - 5 = -1.5x + 0$$

$$1.25x = 5$$

$$1x = 4$$

$$y = (-0.25 \times 4) - 5$$

$$y = (-1.5 \times 4) + 0$$

4) 
$$\begin{cases} y = 8.5x - 7 \\ y = 6.5x - 3 \end{cases}$$

$$8.5x - 7 = 6.5x - 3$$

$$2x = 4$$

$$1x = 2$$

$$y = (8.5 \times 2) - 7$$

$$y = (6.5 \times 2) - 3$$

5) 
$$\begin{cases} y = -5.5x - 7 \\ y = 2.5x + 9 \end{cases}$$

$$-5.5x - 7 = 2.5x + 9$$

$$-8x = 16$$

$$1x = -2$$

$$y = (-5.5 \times -2) - 7$$

$$y = (2.5 \times -2) + 9$$

6) 
$$\begin{cases} y = 1.5x - 6 \\ y = 6.5x + 4 \end{cases}$$

$$1.5x - 6 = 6.5x + 4$$

$$-5x = 10$$

$$1x = -2$$

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

$$y = (6.5 \times -2) + 4$$

7) 
$$\begin{cases} y = -0.6x - 8 \\ y = -0.2x - 6 \end{cases}$$

$$-0.6x - 8 = -0.2x - 6$$

$$-0.4x = 2$$

$$1x = -5$$

$$y = (-0.6 \times -5) - 8$$

$$y = (-0.2 \times -5) - 6$$

8) 
$$\begin{cases} y = -1.5x + 4 \\ y = -3.75x - 5 \end{cases}$$

$$-1.5x + 4 = -3.75x - 5$$

$$2.25x = -9$$

$$1x = -4$$

$$y = (-1.5 \times -4) + 4$$

$$y = (-3.75 \times -4) - 5$$

9) 
$$\begin{cases} y = -1.75x - 6 \\ y = -1.5x - 5 \end{cases}$$

$$-1.75x - 6 = -1.5x - 5$$

$$-0.25x = 1$$

$$1x = -4$$

$$y = (-1.75 \times -4) - 6$$

$$y = (-1.5 \times -4) - 5$$

10) 
$$\begin{cases} y = -1.5x + 4 \\ y = 0.75x - 5 \end{cases}$$

$$-1.5x + 4 = 0.75x - 5$$

$$-2.25x = -9$$

$$1x = 4$$

$$y = (-1.5 \times 4) + 4$$

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

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