

## Identifying Point of Intersection with Equations

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

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

Answers

1) 
$$\begin{cases} y = 0.9x + 1 \\ y = 1.7x - 7 \end{cases}$$

2) 
$$\begin{cases} y = -0.6x + 1 \\ y = -1.2x - 2 \end{cases}$$

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

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

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

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

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

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

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

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

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

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

3) 
$$\begin{cases} y = 0.7x + 0 \\ y = 0.3x - 4 \end{cases}$$

4) 
$$\begin{cases} y = -0.4x + 7 \\ y = -0.6x + 9 \end{cases}$$

5) 
$$\begin{cases} y = -1.25x + 4 \\ y = -4.5x - 9 \end{cases}$$

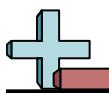
6) 
$$\begin{cases} y = 5.5x - 5 \\ y = -0.5x + 7 \end{cases}$$

7) 
$$\begin{cases} y = 1.75x - 5 \\ y = 0.5x + 5 \end{cases}$$

8) 
$$\begin{cases} y = -1.2x + 2 \\ y = -1.3x + 3 \end{cases}$$

9) 
$$\begin{cases} y = -0.25x - 2 \\ y = 1.5x - 9 \end{cases}$$

10) 
$$\begin{cases} y = -0.2x + 3 \\ y = -1.2x + 8 \end{cases}$$



## Identifying Point of Intersection with Equations

Name: **Answer Key**

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

1) 
$$\begin{cases} y = 0.9x + 1 \\ y = 1.7x - 7 \end{cases}$$

$$0.9x+1 = 1.7x- 7$$

$$-0.8x = -8$$

$$1x = 10$$

$$y = (0.9 \times 10) + 1$$

$$y = (1.7 \times 10) - 7$$

2) 
$$\begin{cases} y = -0.6x + 1 \\ y = -1.2x - 2 \end{cases}$$

$$-0.6x+1 = -1.2x- 2$$

$$0.6x = -3$$

$$1x = -5$$

$$y = (-0.6 \times -5) + 1$$

$$y = (-1.2 \times -5) - 2$$

3) 
$$\begin{cases} y = 0.7x + 0 \\ y = 0.3x - 4 \end{cases}$$

$$0.7x+0 = 0.3x- 4$$

$$0.4x = -4$$

$$1x = -10$$

$$y = (0.7 \times -10) + 0$$

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

4) 
$$\begin{cases} y = -0.4x + 7 \\ y = -0.6x + 9 \end{cases}$$

$$-0.4x+7 = -0.6x+9$$

$$0.2x = 2$$

$$1x = 10$$

$$y = (-0.4 \times 10) + 7$$

$$y = (-0.6 \times 10) + 9$$

5) 
$$\begin{cases} y = -1.25x + 4 \\ y = -4.5x - 9 \end{cases}$$

$$-1.25x+4 = -4.5x- 9$$

$$3.25x = -13$$

$$1x = -4$$

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

$$y = (-4.5 \times -4) - 9$$

6) 
$$\begin{cases} y = 5.5x - 5 \\ y = -0.5x + 7 \end{cases}$$

$$5.5x- 5 = -0.5x+7$$

$$6x = 12$$

$$1x = 2$$

$$y = (5.5 \times 2) - 5$$

$$y = (-0.5 \times 2) + 7$$

7) 
$$\begin{cases} y = 1.75x - 5 \\ y = 0.5x + 5 \end{cases}$$

$$1.75x- 5 = 0.5x+5$$

$$1.25x = 10$$

$$1x = 8$$

$$y = (1.75 \times 8) - 5$$

$$y = (0.5 \times 8) + 5$$

8) 
$$\begin{cases} y = -1.2x + 2 \\ y = -1.3x + 3 \end{cases}$$

$$-1.2x+2 = -1.3x+3$$

$$0.1x = 1$$

$$1x = 10$$

$$y = (-1.2 \times 10) + 2$$

$$y = (-1.3 \times 10) + 3$$

9) 
$$\begin{cases} y = -0.25x - 2 \\ y = 1.5x - 9 \end{cases}$$

$$-0.25x- 2 = 1.5x- 9$$

$$-1.75x = -7$$

$$1x = 4$$

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

$$y = (1.5 \times 4) - 9$$

10) 
$$\begin{cases} y = -0.2x + 3 \\ y = -1.2x + 8 \end{cases}$$

$$-0.2x+3 = -1.2x+8$$

$$1x = 5$$

$$1x = 5$$

$$y = (-0.2 \times 5) + 3$$

$$y = (-1.2 \times 5) + 8$$

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