



Identifying Point of Intersection with Equations

Name: _____

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

Answers

1)
$$\begin{cases} y = -0.3x + 6 \\ y = 0.7x - 4 \end{cases}$$

2)
$$\begin{cases} y = -0.2x - 2 \\ y = 0.4x + 4 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = -1.5x - 4 \\ y = 4.5x + 8 \end{cases}$$

4)
$$\begin{cases} y = -0.5x - 1 \\ y = -1.3x - 9 \end{cases}$$

5)
$$\begin{cases} y = 0.5x + 0 \\ y = 1.75x - 5 \end{cases}$$

6)
$$\begin{cases} y = 2.25x + 1 \\ y = 0.25x + 9 \end{cases}$$

7)
$$\begin{cases} y = -0.4x - 8 \\ y = 0.6x + 2 \end{cases}$$

8)
$$\begin{cases} y = -0.4x + 3 \\ y = -1.2x - 1 \end{cases}$$

9)
$$\begin{cases} y = 0.4x - 5 \\ y = 0.2x - 3 \end{cases}$$

10)
$$\begin{cases} y = -0.25x + 8 \\ y = -3.5x - 5 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

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

Answers

1)
$$\begin{cases} y = -0.3x + 6 \\ y = 0.7x - 4 \end{cases}$$

$$-0.3x+6 = 0.7x- 4$$

$$-1x = -10$$

$$1x = 10$$

$$y = (-0.3 \times 10) + 6$$

$$y = (0.7 \times 10) - 4$$

2)
$$\begin{cases} y = -0.2x - 2 \\ y = 0.4x + 4 \end{cases}$$

$$-0.2x- 2 = 0.4x+4$$

$$-0.6x = 6$$

$$1x = -10$$

$$y = (-0.2 \times -10) - 2$$

$$y = (0.4 \times -10) + 4$$

3)
$$\begin{cases} y = -1.5x - 4 \\ y = 4.5x + 8 \end{cases}$$

$$-1.5x- 4 = 4.5x+8$$

$$-6x = 12$$

$$1x = -2$$

$$y = (-1.5 \times -2) - 4$$

$$y = (4.5 \times -2) + 8$$

4)
$$\begin{cases} y = -0.5x - 1 \\ y = -1.3x - 9 \end{cases}$$

$$-0.5x- 1 = -1.3x- 9$$

$$0.8x = -8$$

$$1x = -10$$

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

$$y = (-1.3 \times -10) - 9$$

5)
$$\begin{cases} y = 0.5x + 0 \\ y = 1.75x - 5 \end{cases}$$

$$0.5x+0 = 1.75x- 5$$

$$-1.25x = -5$$

$$1x = 4$$

$$y = (0.5 \times 4) + 0$$

$$y = (1.75 \times 4) - 5$$

6)
$$\begin{cases} y = 2.25x + 1 \\ y = 0.25x + 9 \end{cases}$$

$$2.25x+1 = 0.25x+9$$

$$2x = 8$$

$$1x = 4$$

$$y = (2.25 \times 4) + 1$$

$$y = (0.25 \times 4) + 9$$

7)
$$\begin{cases} y = -0.4x - 8 \\ y = 0.6x + 2 \end{cases}$$

$$-0.4x- 8 = 0.6x+2$$

$$-1x = 10$$

$$1x = -10$$

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

$$y = (0.6 \times -10) + 2$$

8)
$$\begin{cases} y = -0.4x + 3 \\ y = -1.2x - 1 \end{cases}$$

$$-0.4x+3 = -1.2x- 1$$

$$0.8x = -4$$

$$1x = -5$$

$$y = (-0.4 \times -5) + 3$$

$$y = (-1.2 \times -5) - 1$$

9)
$$\begin{cases} y = 0.4x - 5 \\ y = 0.2x - 3 \end{cases}$$

$$0.4x- 5 = 0.2x- 3$$

$$0.2x = 2$$

$$1x = 10$$

$$y = (0.4 \times 10) - 5$$

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

10)
$$\begin{cases} y = -0.25x + 8 \\ y = -3.5x - 5 \end{cases}$$

$$-0.25x+8 = -3.5x- 5$$

$$3.25x = -13$$

$$1x = -4$$

$$y = (-0.25 \times -4) + 8$$

$$y = (-3.5 \times -4) - 5$$

1. (10 , 3)2. (-10 , -2.2204460492503E-16)3. (-2 , -1)4. (-10 , 4)5. (4 , 2)6. (4 , 10)7. (-10 , -4)8. (-5 , 5)9. (10 , -1)10. (-4 , 9)