



Identifying Point of Intersection with Equations

Name: _____

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

Answers

1)
$$\begin{cases} y = -2.5x + 3 \\ y = -5.5x - 3 \end{cases}$$

2)
$$\begin{cases} y = 0.4x - 2 \\ y = 0.5x - 1 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = 0.5x + 9 \\ y = -0.5x + 3 \end{cases}$$

4)
$$\begin{cases} y = -0.4x + 7 \\ y = -0.6x + 8 \end{cases}$$

5)
$$\begin{cases} y = 6.5x + 7 \\ y = 4.5x + 3 \end{cases}$$

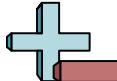
6)
$$\begin{cases} y = -7.5x + 5 \\ y = -6.5x + 3 \end{cases}$$

7)
$$\begin{cases} y = 3.5x - 2 \\ y = 2.5x + 0 \end{cases}$$

8)
$$\begin{cases} y = 3.25x + 8 \\ y = 1.75x + 2 \end{cases}$$

9)
$$\begin{cases} y = -1.2x - 9 \\ y = 0.1x + 4 \end{cases}$$

10)
$$\begin{cases} y = -0.5x + 2 \\ y = -1.75x + 7 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

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

1)
$$\begin{cases} y = -2.5x + 3 \\ y = -5.5x - 3 \end{cases}$$

$$-2.5x+3 = -5.5x-3$$

$$3x = -6$$

$$1x = -2$$

$$y = (-2.5 \times -2) + 3$$

$$y = (-5.5 \times -2) - 3$$

2)
$$\begin{cases} y = 0.4x - 2 \\ y = 0.5x - 1 \end{cases}$$

$$0.4x - 2 = 0.5x - 1$$

$$-0.1x = 1$$

$$1x = -10$$

$$y = (0.4 \times -10) - 2$$

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

3)
$$\begin{cases} y = 0.5x + 9 \\ y = -0.5x + 3 \end{cases}$$

$$0.5x + 9 = -0.5x + 3$$

$$1x = -6$$

$$1x = -6$$

$$y = (0.5 \times -6) + 9$$

$$y = (-0.5 \times -6) + 3$$

4)
$$\begin{cases} y = -0.4x + 7 \\ y = -0.6x + 8 \end{cases}$$

$$-0.4x + 7 = -0.6x + 8$$

$$0.2x = 1$$

$$1x = 5$$

$$y = (-0.4 \times 5) + 7$$

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

5)
$$\begin{cases} y = 6.5x + 7 \\ y = 4.5x + 3 \end{cases}$$

$$6.5x + 7 = 4.5x + 3$$

$$2x = -4$$

$$1x = -2$$

$$y = (6.5 \times -2) + 7$$

$$y = (4.5 \times -2) + 3$$

6)
$$\begin{cases} y = -7.5x + 5 \\ y = -6.5x + 3 \end{cases}$$

$$-7.5x + 5 = -6.5x + 3$$

$$-1x = -2$$

$$1x = 2$$

$$y = (-7.5 \times 2) + 5$$

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

7)
$$\begin{cases} y = 3.5x - 2 \\ y = 2.5x + 0 \end{cases}$$

$$3.5x - 2 = 2.5x + 0$$

$$1x = 2$$

$$1x = 2$$

$$y = (3.5 \times 2) - 2$$

$$y = (2.5 \times 2) + 0$$

8)
$$\begin{cases} y = 3.25x + 8 \\ y = 1.75x + 2 \end{cases}$$

$$3.25x + 8 = 1.75x + 2$$

$$1.5x = -6$$

$$1x = -4$$

$$y = (3.25 \times -4) + 8$$

$$y = (1.75 \times -4) + 2$$

9)
$$\begin{cases} y = -1.2x - 9 \\ y = 0.1x + 4 \end{cases}$$

$$-1.2x - 9 = 0.1x + 4$$

$$-1.3x = 13$$

$$1x = -10$$

$$y = (-1.2 \times -10) - 9$$

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

10)
$$\begin{cases} y = -0.5x + 2 \\ y = -1.75x + 7 \end{cases}$$

$$-0.5x + 2 = -1.75x + 7$$

$$1.25x = 5$$

$$1x = 4$$

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

$$y = (-1.75 \times 4) + 7$$

Answers1. **(-2, 8)**2. **(-10, -6)**3. **(-6, 6)**4. **(5, 5)**5. **(-2, -6)**6. **(2, -10)**7. **(2, 5)**8. **(-4, -5)**9. **(-10, 3)**10. **(4, 0)**