



Identifying Point of Intersection with Equations

Name: _____

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

Answers

1)
$$\begin{cases} y = 0.3x + 3 \\ y = 0.1x + 5 \end{cases}$$

2)
$$\begin{cases} y = 0.5x + 7 \\ y = -0.5x + 1 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = -2.5x + 9 \\ y = -2.25x + 8 \end{cases}$$

4)
$$\begin{cases} y = -2.5x + 2 \\ y = -0.5x + 6 \end{cases}$$

5)
$$\begin{cases} y = 0.2x - 6 \\ y = -0.2x - 2 \end{cases}$$

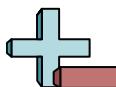
6)
$$\begin{cases} y = -0.4x + 5 \\ y = 0.7x - 6 \end{cases}$$

7)
$$\begin{cases} y = -0.4x - 6 \\ y = 1.8x + 5 \end{cases}$$

8)
$$\begin{cases} y = -1.5x + 1 \\ y = -0.25x - 4 \end{cases}$$

9)
$$\begin{cases} y = 1.7x - 8 \\ y = 1.8x - 9 \end{cases}$$

10)
$$\begin{cases} y = -2.25x + 9 \\ y = -1.5x + 3 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

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

1)
$$\begin{cases} y = 0.3x + 3 \\ y = 0.1x + 5 \end{cases}$$

$$0.3x+3 = 0.1x+5$$

$$0.2x = 2$$

$$1x = 10$$

$$y = (0.3 \times 10) + 3$$

$$y = (0.1 \times 10) + 5$$

2)
$$\begin{cases} y = 0.5x + 7 \\ y = -0.5x + 1 \end{cases}$$

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

$$1x = -6$$

$$1x = -6$$

$$y = (0.5 \times -6) + 7$$

$$y = (-0.5 \times -6) + 1$$

3)
$$\begin{cases} y = -2.5x + 9 \\ y = -2.25x + 8 \end{cases}$$

$$-2.5x+9 = -2.25x+8$$

$$-0.25x = -1$$

$$1x = 4$$

$$y = (-2.5 \times 4) + 9$$

$$y = (-2.25 \times 4) + 8$$

4)
$$\begin{cases} y = -2.5x + 2 \\ y = -0.5x + 6 \end{cases}$$

$$-2.5x+2 = -0.5x+6$$

$$-2x = 4$$

$$1x = -2$$

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

$$y = (-0.5 \times -2) + 6$$

5)
$$\begin{cases} y = 0.2x - 6 \\ y = -0.2x - 2 \end{cases}$$

$$0.2x - 6 = -0.2x - 2$$

$$0.4x = 4$$

$$1x = 10$$

$$y = (0.2 \times 10) - 6$$

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

6)
$$\begin{cases} y = -0.4x + 5 \\ y = 0.7x - 6 \end{cases}$$

$$-0.4x+5 = 0.7x-6$$

$$-1.1x = -11$$

$$1x = 10$$

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

$$y = (0.7 \times 10) - 6$$

7)
$$\begin{cases} y = -0.4x - 6 \\ y = 1.8x + 5 \end{cases}$$

$$-0.4x - 6 = 1.8x + 5$$

$$-2.2x = 11$$

$$1x = -5$$

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

$$y = (1.8 \times -5) + 5$$

8)
$$\begin{cases} y = -1.5x + 1 \\ y = -0.25x - 4 \end{cases}$$

$$-1.5x+1 = -0.25x-4$$

$$-1.25x = -5$$

$$1x = 4$$

$$y = (-1.5 \times 4) + 1$$

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

9)
$$\begin{cases} y = 1.7x - 8 \\ y = 1.8x - 9 \end{cases}$$

$$1.7x - 8 = 1.8x - 9$$

$$-0.1x = -1$$

$$1x = 10$$

$$y = (1.7 \times 10) - 8$$

$$y = (1.8 \times 10) - 9$$

10)
$$\begin{cases} y = -2.25x + 9 \\ y = -1.5x + 3 \end{cases}$$

$$-2.25x+9 = -1.5x+3$$

$$-0.75x = -6$$

$$1x = 8$$

$$y = (-2.25 \times 8) + 9$$

$$y = (-1.5 \times 8) + 3$$

Answers1. (10, 6)2. (-6, 4)3. (4, -1)4. (-2, 7)5. (10, -4)6. (10, 1)7. (-5, -4)8. (4, -5)9. (10, 9)10. (8, -9)