

Identifying Point of Intersection with Equations

Name: _____

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

Answers

1)
$$\begin{cases} y = 2.25x - 5 \\ y = 0.5x + 2 \end{cases}$$

2)
$$\begin{cases} y = 0.5x - 7 \\ y = -0.5x - 5 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = -2.75x - 6 \\ y = -2.5x - 5 \end{cases}$$

4)
$$\begin{cases} y = 0.5x - 1 \\ y = 0.1x - 5 \end{cases}$$

5)
$$\begin{cases} y = -0.6x - 5 \\ y = -0.4x - 4 \end{cases}$$

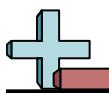
6)
$$\begin{cases} y = -7.5x - 8 \\ y = -5.5x - 4 \end{cases}$$

7)
$$\begin{cases} y = 4.25x + 8 \\ y = 2.75x + 2 \end{cases}$$

8)
$$\begin{cases} y = -1.25x + 2 \\ y = -3.75x - 8 \end{cases}$$

9)
$$\begin{cases} y = -0.4x + 8 \\ y = -0.3x + 7 \end{cases}$$

10)
$$\begin{cases} y = -1.5x + 3 \\ y = 0.25x - 4 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

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

1)
$$\begin{cases} y = 2.25x - 5 \\ y = 0.5x + 2 \end{cases}$$

$$2.25x - 5 = 0.5x + 2$$

$$1.75x = 7$$

$$1x = 4$$

$$y = (2.25 \times 4) - 5$$

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

2)
$$\begin{cases} y = 0.5x - 7 \\ y = -0.5x - 5 \end{cases}$$

$$0.5x - 7 = -0.5x - 5$$

$$1x = 2$$

$$1x = 2$$

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

$$y = (-0.5 \times 2) - 5$$

3)
$$\begin{cases} y = -2.75x - 6 \\ y = -2.5x - 5 \end{cases}$$

$$-2.75x - 6 = -2.5x - 5$$

$$-0.25x = 1$$

$$1x = -4$$

$$y = (-2.75 \times -4) - 6$$

$$y = (-2.5 \times -4) - 5$$

4)
$$\begin{cases} y = 0.5x - 1 \\ y = 0.1x - 5 \end{cases}$$

$$0.5x - 1 = 0.1x - 5$$

$$0.4x = -4$$

$$1x = -10$$

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

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

5)
$$\begin{cases} y = -0.6x - 5 \\ y = -0.4x - 4 \end{cases}$$

$$-0.6x - 5 = -0.4x - 4$$

$$-0.2x = 1$$

$$1x = -5$$

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

$$y = (-0.4 \times -5) - 4$$

6)
$$\begin{cases} y = -7.5x - 8 \\ y = -5.5x - 4 \end{cases}$$

$$-7.5x - 8 = -5.5x - 4$$

$$-2x = 4$$

$$1x = -2$$

$$y = (-7.5 \times -2) - 8$$

$$y = (-5.5 \times -2) - 4$$

7)
$$\begin{cases} y = 4.25x + 8 \\ y = 2.75x + 2 \end{cases}$$

$$4.25x + 8 = 2.75x + 2$$

$$1.5x = -6$$

$$1x = -4$$

$$y = (4.25 \times -4) + 8$$

$$y = (2.75 \times -4) + 2$$

8)
$$\begin{cases} y = -1.25x + 2 \\ y = -3.75x - 8 \end{cases}$$

$$-1.25x + 2 = -3.75x - 8$$

$$2.5x = -10$$

$$1x = -4$$

$$y = (-1.25 \times -4) + 2$$

$$y = (-3.75 \times -4) - 8$$

9)
$$\begin{cases} y = -0.4x + 8 \\ y = -0.3x + 7 \end{cases}$$

$$-0.4x + 8 = -0.3x + 7$$

$$-0.1x = -1$$

$$1x = 10$$

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

$$y = (-0.3 \times 10) + 7$$

10)
$$\begin{cases} y = -1.5x + 3 \\ y = 0.25x - 4 \end{cases}$$

$$-1.5x + 3 = 0.25x - 4$$

$$-1.75x = -7$$

$$1x = 4$$

$$y = (-1.5 \times 4) + 3$$

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

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