



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

1)
$$\begin{cases} y = 0.4x + 4 \\ y = 0.9x + 9 \end{cases}$$

2)
$$\begin{cases} y = 0.1x - 7 \\ y = 0.7x - 1 \end{cases}$$

3)
$$\begin{cases} y = 0.4x + 4 \\ y = -0.3x - 3 \end{cases}$$

4)
$$\begin{cases} y = 2.75x - 6 \\ y = -0.75x + 8 \end{cases}$$

5)
$$\begin{cases} y = -1.75x - 2 \\ y = -2.25x + 0 \end{cases}$$

6)
$$\begin{cases} y = -1.75x + 2 \\ y = -0.5x + 7 \end{cases}$$

7)
$$\begin{cases} y = -2.25x + 7 \\ y = -0.75x + 1 \end{cases}$$

8)
$$\begin{cases} y = 0.5x + 6 \\ y = 3.75x - 7 \end{cases}$$

9)
$$\begin{cases} y = -0.6x - 4 \\ y = 0.4x + 1 \end{cases}$$

10)
$$\begin{cases} y = 1.5x - 9 \\ y = -5.5x + 5 \end{cases}$$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



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

1)
$$\begin{cases} y = 0.4x + 4 \\ y = 0.9x + 9 \end{cases}$$

$$0.4x + 4 = 0.9x + 9$$

$$-0.5x = 5$$

$$1x = -10$$

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

$$y = (0.9 \times -10) + 9$$

2)
$$\begin{cases} y = 0.1x - 7 \\ y = 0.7x - 1 \end{cases}$$

$$0.1x - 7 = 0.7x - 1$$

$$-0.6x = 6$$

$$1x = -10$$

$$y = (0.1 \times -10) - 7$$

$$y = (0.7 \times -10) - 1$$

3)
$$\begin{cases} y = 0.4x + 4 \\ y = -0.3x - 3 \end{cases}$$

$$0.4x + 4 = -0.3x - 3$$

$$0.7x = -7$$

$$1x = -10$$

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

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

4)
$$\begin{cases} y = 2.75x - 6 \\ y = -0.75x + 8 \end{cases}$$

$$2.75x - 6 = -0.75x + 8$$

$$3.5x = 14$$

$$1x = 4$$

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

$$y = (-0.75 \times 4) + 8$$

5)
$$\begin{cases} y = -1.75x - 2 \\ y = -2.25x + 0 \end{cases}$$

$$-1.75x - 2 = -2.25x + 0$$

$$0.5x = 2$$

$$1x = 4$$

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

$$y = (-2.25 \times 4) + 0$$

6)
$$\begin{cases} y = -1.75x + 2 \\ y = -0.5x + 7 \end{cases}$$

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

$$-1.25x = 5$$

$$1x = -4$$

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

$$y = (-0.5 \times -4) + 7$$

7)
$$\begin{cases} y = -2.25x + 7 \\ y = -0.75x + 1 \end{cases}$$

$$-2.25x + 7 = -0.75x + 1$$

$$-1.5x = -6$$

$$1x = 4$$

$$y = (-2.25 \times 4) + 7$$

$$y = (-0.75 \times 4) + 1$$

8)
$$\begin{cases} y = 0.5x + 6 \\ y = 3.75x - 7 \end{cases}$$

$$0.5x + 6 = 3.75x - 7$$

$$-3.25x = -13$$

$$1x = 4$$

$$y = (0.5 \times 4) + 6$$

$$y = (3.75 \times 4) - 7$$

9)
$$\begin{cases} y = -0.6x - 4 \\ y = 0.4x + 1 \end{cases}$$

$$-0.6x - 4 = 0.4x + 1$$

$$-1x = 5$$

$$1x = -5$$

$$y = (-0.6 \times -5) - 4$$

$$y = (0.4 \times -5) + 1$$

10)
$$\begin{cases} y = 1.5x - 9 \\ y = -5.5x + 5 \end{cases}$$

$$1.5x - 9 = -5.5x + 5$$

$$7x = 14$$

$$1x = 2$$

$$y = (1.5 \times 2) - 9$$

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

Answers

1. **(-10, 0)**

2. **(-10, -8)**

3. **(-10, 0)**

4. **(4, 5)**

5. **(4, -9)**

6. **(-4, 9)**

7. **(4, -2)**

8. **(4, 8)**

9. **(-5, -1)**

10. **(2, -6)**