



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

Answers

1)
$$\begin{cases} y = -0.4x - 6 \\ y = 0.2x - 3 \end{cases}$$

2)
$$\begin{cases} y = 2.5x - 4 \\ y = -3.5x + 8 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = 0.5x + 6 \\ y = -1.25x - 1 \end{cases}$$

4)
$$\begin{cases} y = -2.5x - 4 \\ y = 1.5x + 4 \end{cases}$$

5)
$$\begin{cases} y = -0.25x + 3 \\ y = -1.25x - 5 \end{cases}$$

6)
$$\begin{cases} y = -0.25x - 3 \\ y = 0.5x + 0 \end{cases}$$

7)
$$\begin{cases} y = 0.8x - 3 \\ y = -0.2x - 8 \end{cases}$$

8)
$$\begin{cases} y = -0.5x - 1 \\ y = -1.25x + 5 \end{cases}$$

9)
$$\begin{cases} y = 0.5x - 4 \\ y = -2.25x + 7 \end{cases}$$

10)
$$\begin{cases} y = 0.25x + 7 \\ y = 2.25x - 9 \end{cases}$$



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

Answers

$$\begin{aligned}
 1) \quad & \begin{cases} y = -0.4x - 6 \\ y = 0.2x - 3 \end{cases} \\
 & -0.4x - 6 = 0.2x - 3 \\
 & -0.6x = 3 \\
 & 1x = -5 \\
 & y = (-0.4 \times -5) - 6 \\
 & y = (0.2 \times -5) - 3
 \end{aligned}$$

$$\begin{aligned}
 2) \quad & \begin{cases} y = 2.5x - 4 \\ y = -3.5x + 8 \end{cases} \\
 & 2.5x - 4 = -3.5x + 8 \\
 & 6x = 12 \\
 & 1x = 2 \\
 & y = (2.5 \times 2) - 4 \\
 & y = (-3.5 \times 2) + 8
 \end{aligned}$$

$$\begin{aligned}
 3) \quad & \begin{cases} y = 0.5x + 6 \\ y = -1.25x - 1 \end{cases} \\
 & 0.5x + 6 = -1.25x - 1 \\
 & 1.75x = -7 \\
 & 1x = -4 \\
 & y = (0.5 \times -4) + 6 \\
 & y = (-1.25 \times -4) - 1
 \end{aligned}$$

$$\begin{aligned}
 4) \quad & \begin{cases} y = -2.5x - 4 \\ y = 1.5x + 4 \end{cases} \\
 & -2.5x - 4 = 1.5x + 4 \\
 & -4x = 8 \\
 & 1x = -2 \\
 & y = (-2.5 \times -2) - 4 \\
 & y = (1.5 \times -2) + 4
 \end{aligned}$$

$$\begin{aligned}
 5) \quad & \begin{cases} y = -0.25x + 3 \\ y = -1.25x - 5 \end{cases} \\
 & -0.25x + 3 = -1.25x - 5 \\
 & 1x = -8 \\
 & 1x = -8 \\
 & y = (-0.25 \times -8) + 3 \\
 & y = (-1.25 \times -8) - 5
 \end{aligned}$$

$$\begin{aligned}
 6) \quad & \begin{cases} y = -0.25x - 3 \\ y = 0.5x + 0 \end{cases} \\
 & -0.25x - 3 = 0.5x + 0 \\
 & -0.75x = 3 \\
 & 1x = -4 \\
 & y = (-0.25 \times -4) - 3 \\
 & y = (0.5 \times -4) + 0
 \end{aligned}$$

$$\begin{aligned}
 7) \quad & \begin{cases} y = 0.8x - 3 \\ y = -0.2x - 8 \end{cases} \\
 & 0.8x - 3 = -0.2x - 8 \\
 & 1x = -5 \\
 & 1x = -5 \\
 & y = (0.8 \times -5) - 3 \\
 & y = (-0.2 \times -5) - 8
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & \begin{cases} y = -0.5x - 1 \\ y = -1.25x + 5 \end{cases} \\
 & -0.5x - 1 = -1.25x + 5 \\
 & 0.75x = 6 \\
 & 1x = 8 \\
 & y = (-0.5 \times 8) - 1 \\
 & y = (-1.25 \times 8) + 5
 \end{aligned}$$

$$\begin{aligned}
 9) \quad & \begin{cases} y = 0.5x - 4 \\ y = -2.25x + 7 \end{cases} \\
 & 0.5x - 4 = -2.25x + 7 \\
 & 2.75x = 11 \\
 & 1x = 4 \\
 & y = (0.5 \times 4) - 4 \\
 & y = (-2.25 \times 4) + 7
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & \begin{cases} y = 0.25x + 7 \\ y = 2.25x - 9 \end{cases} \\
 & 0.25x + 7 = 2.25x - 9 \\
 & -2x = -16 \\
 & 1x = 8 \\
 & y = (0.25 \times 8) + 7 \\
 & y = (2.25 \times 8) - 9
 \end{aligned}$$

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