



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

1)
$$\begin{cases} y = -0.2x + 3 \\ y = 0.1x + 6 \end{cases}$$

2)
$$\begin{cases} y = -0.5x + 9 \\ y = 0.2x + 2 \end{cases}$$

3)
$$\begin{cases} y = 1.7x + 7 \\ y = 0.6x - 4 \end{cases}$$

4)
$$\begin{cases} y = -0.2x - 7 \\ y = 0.3x - 2 \end{cases}$$

5)
$$\begin{cases} y = 0.5x - 2 \\ y = 1.5x + 6 \end{cases}$$

6)
$$\begin{cases} y = -3.5x + 9 \\ y = 1.5x - 1 \end{cases}$$

7)
$$\begin{cases} y = -1.5x + 9 \\ y = -0.25x + 4 \end{cases}$$

8)
$$\begin{cases} y = 0.5x + 7 \\ y = 3.5x - 5 \end{cases}$$

9)
$$\begin{cases} y = 0.5x - 8 \\ y = -2.25x + 3 \end{cases}$$

10)
$$\begin{cases} y = 0.2x + 1 \\ y = 0.6x - 1 \end{cases}$$

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)
$$\begin{cases} y = -0.2x + 3 \\ y = 0.1x + 6 \end{cases}$$

$$\begin{aligned} -0.2x + 3 &= 0.1x + 6 \\ -0.3x &= 3 \\ 1x &= -10 \\ y &= (-0.2 \times -10) + 3 \\ y &= (0.1 \times -10) + 6 \end{aligned}$$

2)
$$\begin{cases} y = -0.5x + 9 \\ y = 0.2x + 2 \end{cases}$$

$$\begin{aligned} -0.5x + 9 &= 0.2x + 2 \\ -0.7x &= -7 \\ 1x &= 10 \\ y &= (-0.5 \times 10) + 9 \\ y &= (0.2 \times 10) + 2 \end{aligned}$$

3)
$$\begin{cases} y = 1.7x + 7 \\ y = 0.6x - 4 \end{cases}$$

$$\begin{aligned} 1.7x + 7 &= 0.6x - 4 \\ 1.1x &= -11 \\ 1x &= -10 \\ y &= (1.7 \times -10) + 7 \\ y &= (0.6 \times -10) - 4 \end{aligned}$$

4)
$$\begin{cases} y = -0.2x - 7 \\ y = 0.3x - 2 \end{cases}$$

$$\begin{aligned} -0.2x - 7 &= 0.3x - 2 \\ -0.5x &= 5 \\ 1x &= -10 \\ y &= (-0.2 \times -10) - 7 \\ y &= (0.3 \times -10) - 2 \end{aligned}$$

5)
$$\begin{cases} y = 0.5x - 2 \\ y = 1.5x + 6 \end{cases}$$

$$\begin{aligned} 0.5x - 2 &= 1.5x + 6 \\ -1x &= 8 \\ 1x &= -8 \\ y &= (0.5 \times -8) - 2 \\ y &= (1.5 \times -8) + 6 \end{aligned}$$

6)
$$\begin{cases} y = -3.5x + 9 \\ y = 1.5x - 1 \end{cases}$$

$$\begin{aligned} -3.5x + 9 &= 1.5x - 1 \\ -5x &= -10 \\ 1x &= 2 \\ y &= (-3.5 \times 2) + 9 \\ y &= (1.5 \times 2) - 1 \end{aligned}$$

7)
$$\begin{cases} y = -1.5x + 9 \\ y = -0.25x + 4 \end{cases}$$

$$\begin{aligned} -1.5x + 9 &= -0.25x + 4 \\ -1.25x &= -5 \\ 1x &= 4 \\ y &= (-1.5 \times 4) + 9 \\ y &= (-0.25 \times 4) + 4 \end{aligned}$$

8)
$$\begin{cases} y = 0.5x + 7 \\ y = 3.5x - 5 \end{cases}$$

$$\begin{aligned} 0.5x + 7 &= 3.5x - 5 \\ -3x &= -12 \\ 1x &= 4 \\ y &= (0.5 \times 4) + 7 \\ y &= (3.5 \times 4) - 5 \end{aligned}$$

9)
$$\begin{cases} y = 0.5x - 8 \\ y = -2.25x + 3 \end{cases}$$

$$\begin{aligned} 0.5x - 8 &= -2.25x + 3 \\ 2.75x &= 11 \\ 1x &= 4 \\ y &= (0.5 \times 4) - 8 \\ y &= (-2.25 \times 4) + 3 \end{aligned}$$

10)
$$\begin{cases} y = 0.2x + 1 \\ y = 0.6x - 1 \end{cases}$$

$$\begin{aligned} 0.2x + 1 &= 0.6x - 1 \\ -0.4x &= -2 \\ 1x &= 5 \\ y &= (0.2 \times 5) + 1 \\ y &= (0.6 \times 5) - 1 \end{aligned}$$

Answers

1. **(-10, 5)**

2. **(10, 4)**

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

4. **(-10, -5)**

5. **(-8, -6)**

6. **(2, 2)**

7. **(4, 3)**

8. **(4, 9)**

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

10. **(5, 2)**