



Identifying Point of Intersection with Equations

Name: _____

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

Answers

1)
$$\begin{cases} y = 0.1x + 2 \\ y = 0.5x - 2 \end{cases}$$

2)
$$\begin{cases} y = -1.3x + 5 \\ y = -0.4x - 4 \end{cases}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

3)
$$\begin{cases} y = -0.2x + 8 \\ y = 1.5x - 9 \end{cases}$$

4)
$$\begin{cases} y = -4.25x + 8 \\ y = -2.5x + 1 \end{cases}$$

5)
$$\begin{cases} y = -1.5x - 3 \\ y = -0.5x + 5 \end{cases}$$

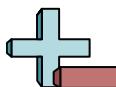
6)
$$\begin{cases} y = 0.3x - 9 \\ y = -0.5x - 1 \end{cases}$$

7)
$$\begin{cases} y = 0.3x + 1 \\ y = 0.5x - 1 \end{cases}$$

8)
$$\begin{cases} y = -0.2x + 0 \\ y = 0.4x - 6 \end{cases}$$

9)
$$\begin{cases} y = -1.5x + 1 \\ y = -3.5x - 3 \end{cases}$$

10)
$$\begin{cases} y = -0.25x - 2 \\ y = -0.5x + 0 \end{cases}$$



Identifying Point of Intersection with Equations

Name: **Answer Key**

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

Answers

1)
$$\begin{cases} y = 0.1x + 2 \\ y = 0.5x - 2 \end{cases}$$

$$\begin{aligned} 0.1x+2 &= 0.5x-2 \\ -0.4x &= -4 \\ 1x &= 10 \\ y &= (0.1 \times 10) + 2 \\ y &= (0.5 \times 10) - 2 \end{aligned}$$

2)
$$\begin{cases} y = -1.3x + 5 \\ y = -0.4x - 4 \end{cases}$$

$$\begin{aligned} -1.3x+5 &= -0.4x-4 \\ -0.9x &= -9 \\ 1x &= 10 \\ y &= (-1.3 \times 10) + 5 \\ y &= (-0.4 \times 10) - 4 \end{aligned}$$

3)
$$\begin{cases} y = -0.2x + 8 \\ y = 1.5x - 9 \end{cases}$$

$$\begin{aligned} -0.2x+8 &= 1.5x-9 \\ -1.7x &= -17 \\ 1x &= 10 \\ y &= (-0.2 \times 10) + 8 \\ y &= (1.5 \times 10) - 9 \end{aligned}$$

4)
$$\begin{cases} y = -4.25x + 8 \\ y = -2.5x + 1 \end{cases}$$

$$\begin{aligned} -4.25x+8 &= -2.5x+1 \\ -1.75x &= -7 \\ 1x &= 4 \\ y &= (-4.25 \times 4) + 8 \\ y &= (-2.5 \times 4) + 1 \end{aligned}$$

5)
$$\begin{cases} y = -1.5x - 3 \\ y = -0.5x + 5 \end{cases}$$

$$\begin{aligned} -1.5x-3 &= -0.5x+5 \\ -1x &= 8 \\ 1x &= -8 \\ y &= (-1.5 \times -8) - 3 \\ y &= (-0.5 \times -8) + 5 \end{aligned}$$

6)
$$\begin{cases} y = 0.3x - 9 \\ y = -0.5x - 1 \end{cases}$$

$$\begin{aligned} 0.3x-9 &= -0.5x-1 \\ 0.8x &= 8 \\ 1x &= 10 \\ y &= (0.3 \times 10) - 9 \\ y &= (-0.5 \times 10) - 1 \end{aligned}$$

7)
$$\begin{cases} y = 0.3x + 1 \\ y = 0.5x - 1 \end{cases}$$

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

8)
$$\begin{cases} y = -0.2x + 0 \\ y = 0.4x - 6 \end{cases}$$

$$\begin{aligned} -0.2x+0 &= 0.4x-6 \\ -0.6x &= -6 \\ 1x &= 10 \\ y &= (-0.2 \times 10) + 0 \\ y &= (0.4 \times 10) - 6 \end{aligned}$$

9)
$$\begin{cases} y = -1.5x + 1 \\ y = -3.5x - 3 \end{cases}$$

$$\begin{aligned} -1.5x+1 &= -3.5x-3 \\ 2x &= -4 \\ 1x &= -2 \\ y &= (-1.5 \times -2) + 1 \\ y &= (-3.5 \times -2) - 3 \end{aligned}$$

10)
$$\begin{cases} y = -0.25x - 2 \\ y = -0.5x + 0 \end{cases}$$

$$\begin{aligned} -0.25x-2 &= -0.5x+0 \\ 0.25x &= 2 \\ 1x &= 8 \\ y &= (-0.25 \times 8) - 2 \\ y &= (-0.5 \times 8) + 0 \end{aligned}$$

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