Identifying Point of Intersection with Equations

Name:

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

1) $\begin{cases} y = -6.5x + 9 \\ y = 1.5x - 7 \end{cases}$

2) $\begin{cases} y = -2.5x + 9 \\ y = -0.5x + 5 \end{cases}$

3) $\begin{cases} y = -0.3x - 3 \\ y = -0.5x - 1 \end{cases}$

4) $\begin{cases} y = 0.5x + 4 \\ y = -0.5x + 0 \end{cases}$

5) $\begin{cases} y = -0.5x - 1 \\ y = -1.5x + 5 \end{cases}$
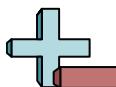
6) $\begin{cases} y = 1.5x + 4 \\ y = 0.5x + 6 \end{cases}$

7) $\begin{cases} y = -0.1x - 7 \\ y = -0.3x - 5 \end{cases}$

8) $\begin{cases} y = -3.5x + 7 \\ y = -3.25x + 6 \end{cases}$

9) $\begin{cases} y = -2.5x + 0 \\ y = -4.25x - 7 \end{cases}$

10) $\begin{cases} y = 0.6x + 2 \\ y = -0.6x - 4 \end{cases}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Math

1-10 | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0

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

1) $\begin{cases} y = -6.5x + 9 \\ y = 1.5x - 7 \end{cases}$

$-6.5x + 9 = 1.5x - 7$
$-8x = -16$
$1x = 2$
$y = (-6.5 \times 2) + 9$
$y = (1.5 \times 2) - 7$

2) $\begin{cases} y = -2.5x + 9 \\ y = -0.5x + 5 \end{cases}$

$-2.5x + 9 = -0.5x + 5$
$-2x = -4$
$1x = 2$
$y = (-2.5 \times 2) + 9$
$y = (-0.5 \times 2) + 5$

1. __**(2 , -4)**__

2. __**(2 , 4)**__

3. __**(10 , -6)**__

3) $\begin{cases} y = -0.3x - 3 \\ y = -0.5x - 1 \end{cases}$

$-0.3x - 3 = -0.5x - 1$
$0.2x = 2$
$1x = 10$
$y = (-0.3 \times 10) - 3$
$y = (-0.5 \times 10) - 1$

4) $\begin{cases} y = 0.5x + 4 \\ y = -0.5x + 0 \end{cases}$

$0.5x + 4 = -0.5x + 0$
$1x = -4$
$1x = -4$
$y = (0.5 \times -4) + 4$
$y = (-0.5 \times -4) + 0$

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

5. __**(6 , -4)**__

6. __**(2 , 7)**__

5) $\begin{cases} y = -0.5x - 1 \\ y = -1.5x + 5 \end{cases}$

$-0.5x - 1 = -1.5x + 5$
$1x = 6$
$1x = 6$
$y = (-0.5 \times 6) - 1$
$y = (-1.5 \times 6) + 5$

6) $\begin{cases} y = 1.5x + 4 \\ y = 0.5x + 6 \end{cases}$

$1.5x + 4 = 0.5x + 6$
$1x = 2$
$1x = 2$
$y = (1.5 \times 2) + 4$
$y = (0.5 \times 2) + 6$

7. __**(10 , -8)**__

8. __**(4 , -7)**__

9. __**(-4 , 10)**__

7) $\begin{cases} y = -0.1x - 7 \\ y = -0.3x - 5 \end{cases}$

$-0.1x - 7 = -0.3x - 5$
$0.2x = 2$
$1x = 10$
$y = (-0.1 \times 10) - 7$
$y = (-0.3 \times 10) - 5$

8) $\begin{cases} y = -3.5x + 7 \\ y = -3.25x + 6 \end{cases}$

$-3.5x + 7 = -3.25x + 6$
$-0.25x = -1$
$1x = 4$
$y = (-3.5 \times 4) + 7$
$y = (-3.25 \times 4) + 6$

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

9) $\begin{cases} y = -2.5x + 0 \\ y = -4.25x - 7 \end{cases}$

$-2.5x + 0 = -4.25x - 7$
$1.75x = -7$
$1x = -4$
$y = (-2.5 \times -4) + 0$
$y = (-4.25 \times -4) - 7$

10) $\begin{cases} y = 0.6x + 2 \\ y = -0.6x - 4 \end{cases}$

$0.6x + 2 = -0.6x - 4$
$1.2x = -6$
$1x = -5$
$y = (0.6 \times -5) + 2$
$y = (-0.6 \times -5) - 4$

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