Identifying Point of Intersection with Equations

Name:

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

1) $\begin{cases} y = -2.5x + 7 \\ y = 0.5x + 1 \end{cases}$

2) $\begin{cases} y = -0.2x + 4 \\ y = -0.3x + 3 \end{cases}$

3) $\begin{cases} y = 0.75x - 6 \\ y = -0.25x - 2 \end{cases}$

4) $\begin{cases} y = 0.2x + 1 \\ y = 0.5x + 4 \end{cases}$

5) $\begin{cases} y = 0.5x - 8 \\ y = -4.5x + 2 \end{cases}$

6) $\begin{cases} y = -0.5x + 1 \\ y = -0.2x + 4 \end{cases}$

7) $\begin{cases} y = 0.3x - 5 \\ y = 0.7x - 1 \end{cases}$

8) $\begin{cases} y = 2.25x + 8 \\ y = -1.25x - 6 \end{cases}$

9) $\begin{cases} y = -0.75x + 1 \\ y = -1.5x - 5 \end{cases}$

10) $\begin{cases} y = -0.25x + 3 \\ y = -3.25x - 9 \end{cases}$

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

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

Identifying Point of Intersection with Equations Name: **Answer Key**

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

1) $\begin{cases} y = -2.5x + 7 \\ y = 0.5x + 1 \end{cases}$

$-2.5x+7 = 0.5x+1$
$-3x = -6$
$1x = 2$
$y = (-2.5\times2)+7$
$y = (0.5\times2)+1$

2) $\begin{cases} y = -0.2x + 4 \\ y = -0.3x + 3 \end{cases}$

$-0.2x+4 = -0.3x+3$
$0.1x = -1$
$1x = -10$
$y = (-0.2\times-10)+4$
$y = (-0.3\times-10)+3$

3) $\begin{cases} y = 0.75x - 6 \\ y = -0.25x - 2 \end{cases}$

$0.75x- 6 = -0.25x- 2$
$1x = 4$
$1x = 4$
$y = (0.75\times4)- 6$
$y = (-0.25\times4)- 2$

4) $\begin{cases} y = 0.2x + 1 \\ y = 0.5x + 4 \end{cases}$

$0.2x+1 = 0.5x+4$
$-0.3x = 3$
$1x = -10$
$y = (0.2\times-10)+1$
$y = (0.5\times-10)+4$

5) $\begin{cases} y = 0.5x - 8 \\ y = -4.5x + 2 \end{cases}$

$0.5x- 8 = -4.5x+2$
$5x = 10$
$1x = 2$
$y = (0.5\times2)- 8$
$y = (-4.5\times2)+2$

6) $\begin{cases} y = -0.5x + 1 \\ y = -0.2x + 4 \end{cases}$

$-0.5x+1 = -0.2x+4$
$-0.3x = 3$
$1x = -10$
$y = (-0.5\times-10)+1$
$y = (-0.2\times-10)+4$

7) $\begin{cases} y = 0.3x - 5 \\ y = 0.7x - 1 \end{cases}$

$0.3x- 5 = 0.7x- 1$
$-0.4x = 4$
$1x = -10$
$y = (0.3\times-10)- 5$
$y = (0.7\times-10)- 1$

8) $\begin{cases} y = 2.25x + 8 \\ y = -1.25x - 6 \end{cases}$

$2.25x+8 = -1.25x- 6$
$3.5x = -14$
$1x = -4$
$y = (2.25\times-4)+8$
$y = (-1.25\times-4)- 6$

9) $\begin{cases} y = -0.75x + 1 \\ y = -1.5x - 5 \end{cases}$

$-0.75x+1 = -1.5x- 5$
$0.75x = -6$
$1x = -8$
$y = (-0.75\times-8)+1$
$y = (-1.5\times-8)- 5$

10) $\begin{cases} y = -0.25x + 3 \\ y = -3.25x - 9 \end{cases}$

$-0.25x+3 = -3.25x- 9$
$3x = -12$
$1x = -4$
$y = (-0.25\times-4)+3$
$y = (-3.25\times-4)- 9$

Answers

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

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