Identifying Point of Intersection with Equations Name:

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

1) $\begin{cases} y = -0.25x + 7 \\ y = 2.25x - 3 \end{cases}$

2) $\begin{cases} y = -7.5x + 6 \\ y = -3.5x - 2 \end{cases}$

3) $\begin{cases} y = 2.25x - 1 \\ y = 3.5x - 6 \end{cases}$

4) $\begin{cases} y = -1.5x - 9 \\ y = -0.6x + 0 \end{cases}$

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

6) $\begin{cases} y = -0.5x + 9 \\ y = 0.75x - 1 \end{cases}$

7) $\begin{cases} y = -0.4x + 2 \\ y = 0.2x + 8 \end{cases}$

8) $\begin{cases} y = 7.5x - 7 \\ y = 4.5x - 1 \end{cases}$

9) $\begin{cases} y = -2.75x - 1 \\ y = -1.5x + 4 \end{cases}$

10) $\begin{cases} y = -0.5x - 8 \\ y = 0.1x - 2 \end{cases}$

Answers

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

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

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

1) $\begin{cases} y = -0.25x + 7 \\ y = 2.25x - 3 \end{cases}$

$-0.25x+7 = 2.25x- 3$
$-2.5x = -10$
$1x = 4$
$y = (-0.25\times4)+7$
$y = (2.25\times4)- 3$

2) $\begin{cases} y = -7.5x + 6 \\ y = -3.5x - 2 \end{cases}$

$-7.5x+6 = -3.5x- 2$
$-4x = -8$
$1x = 2$
$y = (-7.5\times2)+6$
$y = (-3.5\times2)- 2$

3) $\begin{cases} y = 2.25x - 1 \\ y = 3.5x - 6 \end{cases}$

$2.25x- 1 = 3.5x- 6$
$-1.25x = -5$
$1x = 4$
$y = (2.25\times4)- 1$
$y = (3.5\times4)- 6$

4) $\begin{cases} y = -1.5x - 9 \\ y = -0.6x + 0 \end{cases}$

$-1.5x- 9 = -0.6x+0$
$-0.9x = 9$
$1x = -10$
$y = (-1.5\times-10)- 9$
$y = (-0.6\times-10)+0$

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

$0.25x- 3 = -1.25x+3$
$1.5x = 6$
$1x = 4$
$y = (0.25\times4)- 3$
$y = (-1.25\times4)+3$

6) $\begin{cases} y = -0.5x + 9 \\ y = 0.75x - 1 \end{cases}$

$-0.5x+9 = 0.75x- 1$
$-1.25x = -10$
$1x = 8$
$y = (-0.5\times8)+9$
$y = (0.75\times8)- 1$

7) $\begin{cases} y = -0.4x + 2 \\ y = 0.2x + 8 \end{cases}$

$-0.4x+2 = 0.2x+8$
$-0.6x = 6$
$1x = -10$
$y = (-0.4\times-10)+2$
$y = (0.2\times-10)+8$

8) $\begin{cases} y = 7.5x - 7 \\ y = 4.5x - 1 \end{cases}$

$7.5x- 7 = 4.5x- 1$
$3x = 6$
$1x = 2$
$y = (7.5\times2)- 7$
$y = (4.5\times2)- 1$

9) $\begin{cases} y = -2.75x - 1 \\ y = -1.5x + 4 \end{cases}$

$-2.75x- 1 = -1.5x+4$
$-1.25x = 5$
$1x = -4$
$y = (-2.75\times-4)- 1$
$y = (-1.5\times-4)+4$

10) $\begin{cases} y = -0.5x - 8 \\ y = 0.1x - 2 \end{cases}$

$-0.5x- 8 = 0.1x- 2$
$-0.6x = 6$
$1x = -10$
$y = (-0.5\times-10)- 8$
$y = (0.1\times-10)- 2$

Answers

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

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