Identifying Point of Intersection with Equations Name:

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

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

2) $\begin{cases} y = -1.2x - 6 \\ y = -0.4x - 2 \end{cases}$

3) $\begin{cases} y = 0.4x - 1 \\ y = 0.8x + 3 \end{cases}$

4) $\begin{cases} y = 0.7x - 6 \\ y = 0.2x - 1 \end{cases}$

5) $\begin{cases} y = 2.5x - 3 \\ y = 3.75x - 8 \end{cases}$

6) $\begin{cases} y = -1.25x - 3 \\ y = -1.75x - 1 \end{cases}$

7) $\begin{cases} y = -0.5x + 0 \\ y = -4.5x - 8 \end{cases}$

8) $\begin{cases} y = -0.6x + 9 \\ y = 0.6x - 3 \end{cases}$

9) $\begin{cases} y = -4.25x - 8 \\ y = -1.25x + 4 \end{cases}$

10) $\begin{cases} y = -0.75x - 2 \\ y = 1.5x + 7 \end{cases}$

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

$0.5x+6 = 1.5x- 2$
$-1x = -8$
$1x = 8$
$y = (0.5\times8)+6$
$y = (1.5\times8)- 2$

2) $\begin{cases} y = -1.2x - 6 \\ y = -0.4x - 2 \end{cases}$

$-1.2x- 6 = -0.4x- 2$
$-0.8x = 4$
$1x = -5$
$y = (-1.2\times-5)- 6$
$y = (-0.4\times-5)- 2$

3) $\begin{cases} y = 0.4x - 1 \\ y = 0.8x + 3 \end{cases}$

$0.4x- 1 = 0.8x+3$
$-0.4x = 4$
$1x = -10$
$y = (0.4\times-10)- 1$
$y = (0.8\times-10)+3$

4) $\begin{cases} y = 0.7x - 6 \\ y = 0.2x - 1 \end{cases}$

$0.7x- 6 = 0.2x- 1$
$0.5x = 5$
$1x = 10$
$y = (0.7\times10)- 6$
$y = (0.2\times10)- 1$

5) $\begin{cases} y = 2.5x - 3 \\ y = 3.75x - 8 \end{cases}$

$2.5x- 3 = 3.75x- 8$
$-1.25x = -5$
$1x = 4$
$y = (2.5\times4)- 3$
$y = (3.75\times4)- 8$

6) $\begin{cases} y = -1.25x - 3 \\ y = -1.75x - 1 \end{cases}$

$-1.25x- 3 = -1.75x- 1$
$0.5x = 2$
$1x = 4$
$y = (-1.25\times4)- 3$
$y = (-1.75\times4)- 1$

7) $\begin{cases} y = -0.5x + 0 \\ y = -4.5x - 8 \end{cases}$

$-0.5x+0 = -4.5x- 8$
$4x = -8$
$1x = -2$
$y = (-0.5\times-2)+0$
$y = (-4.5\times-2)- 8$

8) $\begin{cases} y = -0.6x + 9 \\ y = 0.6x - 3 \end{cases}$

$-0.6x+9 = 0.6x- 3$
$-1.2x = -12$
$1x = 10$
$y = (-0.6\times10)+9$
$y = (0.6\times10)- 3$

9) $\begin{cases} y = -4.25x - 8 \\ y = -1.25x + 4 \end{cases}$

$-4.25x- 8 = -1.25x+4$
$-3x = 12$
$1x = -4$
$y = (-4.25\times-4)- 8$
$y = (-1.25\times-4)+4$

10) $\begin{cases} y = -0.75x - 2 \\ y = 1.5x + 7 \end{cases}$

$-0.75x- 2 = 1.5x+7$
$-2.25x = 9$
$1x = -4$
$y = (-0.75\times-4)- 2$
$y = (1.5\times-4)+7$

Answers

1. **(8 , 10)**
2. **(-5 , 0)**
3. **(-10 , -5)**
4. **(10 , 1)**
5. **(4 , 7)**
6. **(4 , -8)**
7. **(-2 , 1)**
8. **(10 , 3)**
9. **(-4 , 9)**
10. **(-4 , 1)**

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