Identifying Point of Intersection with Equations Name:

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

1) $\begin{cases} y = -0.25x + 9 \\ y = -3.75x - 5 \end{cases}$

2) $\begin{cases} y = -1.25x + 2 \\ y = 0.5x + 9 \end{cases}$

3) $\begin{cases} y = -3.5x - 9 \\ y = -2.75x - 6 \end{cases}$

4) $\begin{cases} y = 2.5x - 8 \\ y = -2.5x + 2 \end{cases}$

5) $\begin{cases} y = -1.3x + 8 \\ y = -0.3x - 2 \end{cases}$

6) $\begin{cases} y = -0.1x - 5 \\ y = 0.4x + 0 \end{cases}$

7) $\begin{cases} y = 0.1x - 6 \\ y = -0.6x + 1 \end{cases}$

8) $\begin{cases} y = 4.25x - 8 \\ y = 2.75x - 2 \end{cases}$

9) $\begin{cases} y = -1.75x - 8 \\ y = -1.25x - 4 \end{cases}$

10) $\begin{cases} y = -0.6x + 3 \\ y = -0.5x + 2 \end{cases}$

Answers

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

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

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

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

1) $\begin{cases} y = -0.25x + 9 \\ y = -3.75x - 5 \end{cases}$

$-0.25x+9 = -3.75x+-5$
$3.5x = -14$
$1x = -4$
$y = (-0.25\times-4)+9$
$y = (-3.75\times-4)+-5$

2) $\begin{cases} y = -1.25x + 2 \\ y = 0.5x + 9 \end{cases}$

$-1.25x+2 = 0.5x+9$
$-1.75x = 7$
$1x = -4$
$y = (-1.25\times-4)+2$
$y = (0.5\times-4)+9$

3) $\begin{cases} y = -3.5x - 9 \\ y = -2.75x - 6 \end{cases}$

$-3.5x+-9 = -2.75x+-6$
$-0.75x = 3$
$1x = -4$
$y = (-3.5\times-4)+-9$
$y = (-2.75\times-4)+-6$

4) $\begin{cases} y = 2.5x - 8 \\ y = -2.5x + 2 \end{cases}$

$2.5x+-8 = -2.5x+2$
$5x = 10$
$1x = 2$
$y = (2.5\times2)+-8$
$y = (-2.5\times2)+2$

5) $\begin{cases} y = -1.3x + 8 \\ y = -0.3x - 2 \end{cases}$

$-1.3x+8 = -0.3x+-2$
$-1x = -10$
$1x = 10$
$y = (-1.3\times10)+8$
$y = (-0.3\times10)+-2$

6) $\begin{cases} y = -0.1x - 5 \\ y = 0.4x + 0 \end{cases}$

$-0.1x+-5 = 0.4x+0$
$-0.5x = 5$
$1x = -10$
$y = (-0.1\times-10)+-5$
$y = (0.4\times-10)+0$

7) $\begin{cases} y = 0.1x - 6 \\ y = -0.6x + 1 \end{cases}$

$0.1x+-6 = -0.6x+1$
$0.7x = 7$
$1x = 10$
$y = (0.1\times10)+-6$
$y = (-0.6\times10)+1$

8) $\begin{cases} y = 4.25x - 8 \\ y = 2.75x - 2 \end{cases}$

$4.25x+-8 = 2.75x+-2$
$1.5x = 6$
$1x = 4$
$y = (4.25\times4)+-8$
$y = (2.75\times4)+-2$

9) $\begin{cases} y = -1.75x - 8 \\ y = -1.25x - 4 \end{cases}$

$-1.75x+-8 = -1.25x+-4$
$-0.5x = 4$
$1x = -8$
$y = (-1.75\times-8)+-8$
$y = (-1.25\times-8)+-4$

10) $\begin{cases} y = -0.6x + 3 \\ y = -0.5x + 2 \end{cases}$

$-0.6x+3 = -0.5x+2$
$-0.1x = -1$
$1x = 10$
$y = (-0.6\times10)+3$
$y = (-0.5\times10)+2$

Answers

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