Identifying Point of Intersection with Equations Name:

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

1) $\begin{cases} y = 0.9x + 1 \\ y = 1.7x - 7 \end{cases}$

2) $\begin{cases} y = -0.6x + 1 \\ y = -1.2x - 2 \end{cases}$

3) $\begin{cases} y = 0.7x + 0 \\ y = 0.3x - 4 \end{cases}$

4) $\begin{cases} y = -0.4x + 7 \\ y = -0.6x + 9 \end{cases}$

5) $\begin{cases} y = -1.25x + 4 \\ y = -4.5x - 9 \end{cases}$

6) $\begin{cases} y = 5.5x - 5 \\ y = -0.5x + 7 \end{cases}$

7) $\begin{cases} y = 1.75x - 5 \\ y = 0.5x + 5 \end{cases}$

8) $\begin{cases} y = -1.2x + 2 \\ y = -1.3x + 3 \end{cases}$

9) $\begin{cases} y = -0.25x - 2 \\ y = 1.5x - 9 \end{cases}$

10) $\begin{cases} y = -0.2x + 3 \\ y = -1.2x + 8 \end{cases}$

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) $\begin{cases} y = 0.9x + 1 \\ y = 1.7x - 7 \end{cases}$

$0.9x+1 = 1.7x- 7$
$-0.8x = -8$
$1x = 10$
$y = (0.9\times10)+1$
$y = (1.7\times10)- 7$

2) $\begin{cases} y = -0.6x + 1 \\ y = -1.2x - 2 \end{cases}$

$-0.6x+1 = -1.2x- 2$
$0.6x = -3$
$1x = -5$
$y = (-0.6\times-5)+1$
$y = (-1.2\times-5)- 2$

3) $\begin{cases} y = 0.7x + 0 \\ y = 0.3x - 4 \end{cases}$

$0.7x+0 = 0.3x- 4$
$0.4x = -4$
$1x = -10$
$y = (0.7\times-10)+0$
$y = (0.3\times-10)- 4$

4) $\begin{cases} y = -0.4x + 7 \\ y = -0.6x + 9 \end{cases}$

$-0.4x+7 = -0.6x+9$
$0.2x = 2$
$1x = 10$
$y = (-0.4\times10)+7$
$y = (-0.6\times10)+9$

5) $\begin{cases} y = -1.25x + 4 \\ y = -4.5x - 9 \end{cases}$

$-1.25x+4 = -4.5x- 9$
$3.25x = -13$
$1x = -4$
$y = (-1.25\times-4)+4$
$y = (-4.5\times-4)- 9$

6) $\begin{cases} y = 5.5x - 5 \\ y = -0.5x + 7 \end{cases}$

$5.5x- 5 = -0.5x+7$
$6x = 12$
$1x = 2$
$y = (5.5\times2)- 5$
$y = (-0.5\times2)+7$

7) $\begin{cases} y = 1.75x - 5 \\ y = 0.5x + 5 \end{cases}$

$1.75x- 5 = 0.5x+5$
$1.25x = 10$
$1x = 8$
$y = (1.75\times8)- 5$
$y = (0.5\times8)+5$

8) $\begin{cases} y = -1.2x + 2 \\ y = -1.3x + 3 \end{cases}$

$-1.2x+2 = -1.3x+3$
$0.1x = 1$
$1x = 10$
$y = (-1.2\times10)+2$
$y = (-1.3\times10)+3$

9) $\begin{cases} y = -0.25x - 2 \\ y = 1.5x - 9 \end{cases}$

$-0.25x- 2 = 1.5x- 9$
$-1.75x = -7$
$1x = 4$
$y = (-0.25\times4)- 2$
$y = (1.5\times4)- 9$

10) $\begin{cases} y = -0.2x + 3 \\ y = -1.2x + 8 \end{cases}$

$-0.2x+3 = -1.2x+8$
$1x = 5$
$1x = 5$
$y = (-0.2\times5)+3$
$y = (-1.2\times5)+8$

Answers

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

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