Identifying Point of Intersection with Equations

Name:

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

1) $\begin{cases} y = 1.5x + 2 \\ y = 5.5x - 6 \end{cases}$

2) $\begin{cases} y = 0.7x - 2 \\ y = 0.6x - 3 \end{cases}$

3) $\begin{cases} y = -0.5x - 4 \\ y = -0.6x - 3 \end{cases}$

4) $\begin{cases} y = -4.5x - 9 \\ y = -3.25x - 4 \end{cases}$

5) $\begin{cases} y = -0.5x - 5 \\ y = 0.9x + 9 \end{cases}$

6) $\begin{cases} y = 0.1x - 1 \\ y = -0.5x + 5 \end{cases}$

7) $\begin{cases} y = 0.1x + 9 \\ y = -0.2x + 6 \end{cases}$

8) $\begin{cases} y = 0.5x - 5 \\ y = 0.75x - 7 \end{cases}$

9) $\begin{cases} y = -0.5x + 2 \\ y = 2.25x - 9 \end{cases}$

10) $\begin{cases} y = 4.25x - 9 \\ y = 3.25x - 5 \end{cases}$

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) $\begin{cases} y = 1.5x + 2 \\ y = 5.5x - 6 \end{cases}$

$1.5x+2 = 5.5x- 6$
$-4x = -8$
$1x = 2$
$y = (1.5\times2)+2$
$y = (5.5\times2)- 6$

2) $\begin{cases} y = 0.7x - 2 \\ y = 0.6x - 3 \end{cases}$

$0.7x- 2 = 0.6x- 3$
$0.1x = -1$
$1x = -10$
$y = (0.7\times-10)- 2$
$y = (0.6\times-10)- 3$

3) $\begin{cases} y = -0.5x - 4 \\ y = -0.6x - 3 \end{cases}$

$-0.5x- 4 = -0.6x- 3$
$0.1x = 1$
$1x = 10$
$y = (-0.5\times10)- 4$
$y = (-0.6\times10)- 3$

4) $\begin{cases} y = -4.5x - 9 \\ y = -3.25x - 4 \end{cases}$

$-4.5x- 9 = -3.25x- 4$
$-1.25x = 5$
$1x = -4$
$y = (-4.5\times-4)- 9$
$y = (-3.25\times-4)- 4$

5) $\begin{cases} y = -0.5x - 5 \\ y = 0.9x + 9 \end{cases}$

$-0.5x- 5 = 0.9x+9$
$-1.4x = 14$
$1x = -10$
$y = (-0.5\times-10)- 5$
$y = (0.9\times-10)+9$

6) $\begin{cases} y = 0.1x - 1 \\ y = -0.5x + 5 \end{cases}$

$0.1x- 1 = -0.5x+5$
$0.6x = 6$
$1x = 10$
$y = (0.1\times10)- 1$
$y = (-0.5\times10)+5$

7) $\begin{cases} y = 0.1x + 9 \\ y = -0.2x + 6 \end{cases}$

$0.1x+9 = -0.2x+6$
$0.3x = -3$
$1x = -10$
$y = (0.1\times-10)+9$
$y = (-0.2\times-10)+6$

8) $\begin{cases} y = 0.5x - 5 \\ y = 0.75x - 7 \end{cases}$

$0.5x- 5 = 0.75x- 7$
$-0.25x = -2$
$1x = 8$
$y = (0.5\times8)- 5$
$y = (0.75\times8)- 7$

9) $\begin{cases} y = -0.5x + 2 \\ y = 2.25x - 9 \end{cases}$

$-0.5x+2 = 2.25x- 9$
$-2.75x = -11$
$1x = 4$
$y = (-0.5\times4)+2$
$y = (2.25\times4)- 9$

10) $\begin{cases} y = 4.25x - 9 \\ y = 3.25x - 5 \end{cases}$

$4.25x- 9 = 3.25x- 5$
$1x = 4$
$1x = 4$
$y = (4.25\times4)- 9$
$y = (3.25\times4)- 5$

Answers

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

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