Identifying Point of Intersection with Equations

Name:

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

1) $\begin{cases} y = 3.75x + 7 \\ y = 2.75x + 3 \end{cases}$

2) $\begin{cases} y = 0.5x - 1 \\ y = 4.5x + 7 \end{cases}$

3) $\begin{cases} y = -0.5x + 5 \\ y = 1.5x - 3 \end{cases}$

4) $\begin{cases} y = 1.5x + 8 \\ y = -2.75x - 9 \end{cases}$

5) $\begin{cases} y = -1.75x + 0 \\ y = -3.5x + 7 \end{cases}$

6) $\begin{cases} y = -2.5x - 4 \\ y = 0.5x + 2 \end{cases}$

7) $\begin{cases} y = -0.6x - 5 \\ y = 1.8x + 7 \end{cases}$

8) $\begin{cases} y = 1.75x - 2 \\ y = 2.75x + 2 \end{cases}$

9) $\begin{cases} y = -4.25x + 8 \\ y = -0.25x - 8 \end{cases}$

10) $\begin{cases} y = 0.75x + 1 \\ y = 2.75x + 9 \end{cases}$

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) $\begin{cases} y = 3.75x + 7 \\ y = 2.75x + 3 \end{cases}$

3.75x+7 = 2.75x+3
1x = -4
1x = -4
y = (3.75×-4)+7
y = (2.75×-4)+3

2) $\begin{cases} y = 0.5x - 1 \\ y = 4.5x + 7 \end{cases}$

0.5x- 1 = 4.5x+7
-4x = 8
1x = -2
y = (0.5×-2)- 1
y = (4.5×-2)+7

3) $\begin{cases} y = -0.5x + 5 \\ y = 1.5x - 3 \end{cases}$

-0.5x+5 = 1.5x- 3
-2x = -8
1x = 4
y = (-0.5×4)+5
y = (1.5×4)- 3

4) $\begin{cases} y = 1.5x + 8 \\ y = -2.75x - 9 \end{cases}$

1.5x+8 = -2.75x- 9
4.25x = -17
1x = -4
y = (1.5×-4)+8
y = (-2.75×-4)- 9

5) $\begin{cases} y = -1.75x + 0 \\ y = -3.5x + 7 \end{cases}$

-1.75x+0 = -3.5x+7
1.75x = 7
1x = 4
y = (-1.75×4)+0
y = (-3.5×4)+7

6) $\begin{cases} y = -2.5x - 4 \\ y = 0.5x + 2 \end{cases}$

-2.5x- 4 = 0.5x+2
-3x = 6
1x = -2
y = (-2.5×-2)- 4
y = (0.5×-2)+2

7) $\begin{cases} y = -0.6x - 5 \\ y = 1.8x + 7 \end{cases}$

-0.6x- 5 = 1.8x+7
-2.4x = 12
1x = -5
y = (-0.6×-5)- 5
y = (1.8×-5)+7

8) $\begin{cases} y = 1.75x - 2 \\ y = 2.75x + 2 \end{cases}$

1.75x- 2 = 2.75x+2
-1x = 4
1x = -4
y = (1.75×-4)- 2
y = (2.75×-4)+2

9) $\begin{cases} y = -4.25x + 8 \\ y = -0.25x - 8 \end{cases}$

-4.25x+8 = -0.25x- 8
-4x = -16
1x = 4
y = (-4.25×4)+8
y = (-0.25×4)- 8

10) $\begin{cases} y = 0.75x + 1 \\ y = 2.75x + 9 \end{cases}$

0.75x+1 = 2.75x+9
-2x = 8
1x = -4
y = (0.75×-4)+1
y = (2.75×-4)+9

Answers

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

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