Review Exercise Set 23

Exercise 1: Graph (6,6) (-2,4) (2,-5) (-5,0).

Exercise 2: Give the coordinates of the points labeled A through D.

Exercise 3: Is the point (5,-1) a solution of $2x - 3y = 12$?
Exercise 4: Find the ordered-pair solutions for the expression \(-x - 2y = 0\) when \(x = -4, 0,\) and \(4\). Graph the ordered pairs on the same graph.

Exercise 5: Find the ordered-pair solutions for the expression \(2x + y = 4\) when \(x = 0, 2,\) and \(4\). Graph the ordered pairs on the same graph.
Review Exercise Set 23 Answer Key

Exercise 1: Graph (6,6) (-2,4) (2,-5) (-5,0).

Exercise 2: Give the coordinates of the points labeled A through D.

A: (3,0)
B: (-3, -5)
C: (-6, 4)
D: (0, 5)
Exercise 3: Is the point (5, -1) a solution of $2x - 3y = 12$?

To determine if the point is a solution, we will substitute the given values for $x$ and $y$ into the equation.

\[
2x - 3y = 12 \\
2(5) - 3(-1) = 12 \\
10 + 3 = 12 \\
13 = 12 \text{ False}
\]

Since we obtain a false statement, $(5, -1)$ is not a solution of $2x - 3y = 12$.

Exercise 4: Find the ordered-pair solutions for the expression $-x - 2y = 0$ when $x = -4, 0, \text{ and } 4$. Graph the ordered pairs on the same graph.

Substitute the given values for $x$ into the equation to determine the corresponding $y$ values.

$x = -4$

\[-x - 2y = 0 \\
-(-4) - 2y = 0 \\
4 - 2y = 0 \\
-2y = -4 \\
y = 2
\]

ordered pair is $(-4, 2)$

$x = 0$

\[-x - 2y = 0 \\
-(0) - 2y = 0 \\
0 - 2y = 0 \\
-2y = 0 \\
y = 0
\]

ordered pair is $(0, 0)$

$x = 4$

\[-x - 2y = 0 \\
-(-4) - 2y = 0 \\
4 - 2y = 0 \\
-2y = 4 \\
y = -2
\]

ordered pair is $(4, -2)$
Exercise 5: Find the ordered-pair solutions for the expression \(2x + y = 4\) when \(x = 0, 2,\) and \(4\). Graph the ordered pairs on the same graph.

Substitute the given values for \(x\) into the equation to determine the corresponding \(y\) values.

\(x = 0\)

\[
\begin{align*}
2x + y &= 4 \\
2(0) + y &= 4 \\
0 + y &= 4 \\
y &= 4
\end{align*}
\]

ordered pair is \((0, 4)\)

\(x = 2\)

\[
\begin{align*}
2x + y &= 4 \\
2(2) + y &= 4 \\
4 + y &= 4 \\
y &= 0
\end{align*}
\]

ordered pair is \((2, 0)\)
\[ x = 4 \]

\[ 2x + y = 4 \]

\[ 2(4) + y = 4 \]

\[ 8 + y = 4 \]

\[ y = -4 \]

ordered pair is \((4, -4)\)

Graph the ordered pairs