

Name: _____

Graphing Equations - Graphing using a table of values

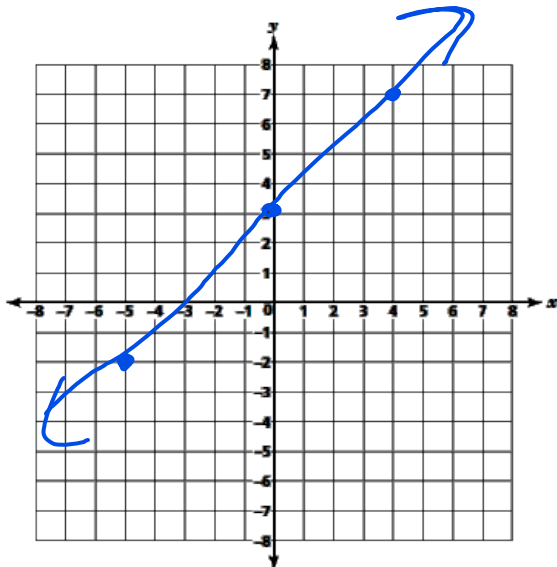
Date: _____

Class: Pre-Algebra

Section 8.6

1 Complete the table for $y = x + 3$ and graph the resulting line.

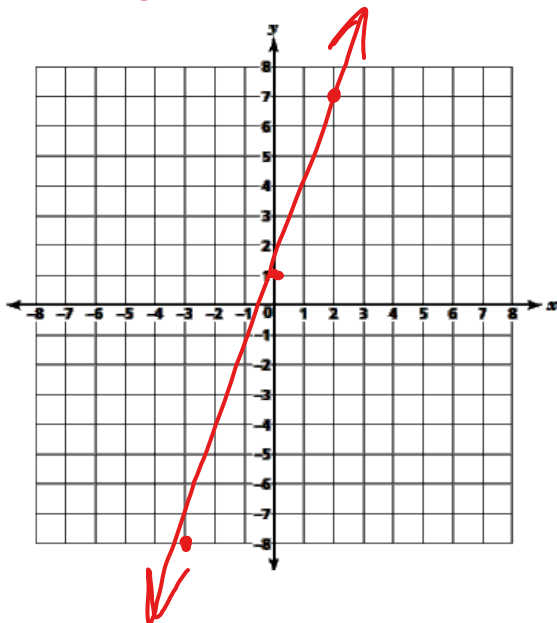
| x | y |
|--------------|----|
| -5 $-5+3$ | -2 |
| 0 $0+3$ | 3 |
| 4 $4+3$ | 7 |



2 Complete the table for $y = 3x + 1$ and graph the resulting line.

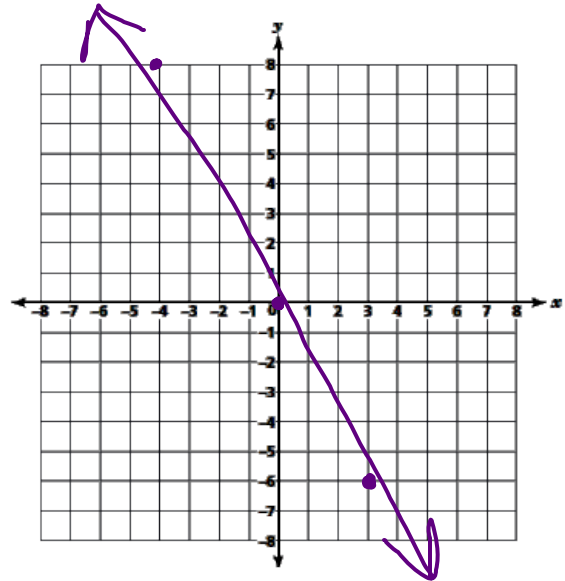
$3 \cdot -3 + 1 = -9 + 1$
 $3 \cdot 0 + 1 = 0 + 1$
 $3 \cdot 2 + 1 = 6 + 1$

| x | y |
|----|----|
| -3 | -8 |
| 0 | 1 |
| 2 | 7 |



3 Complete the table for $y = -2x$ and graph the resulting line.

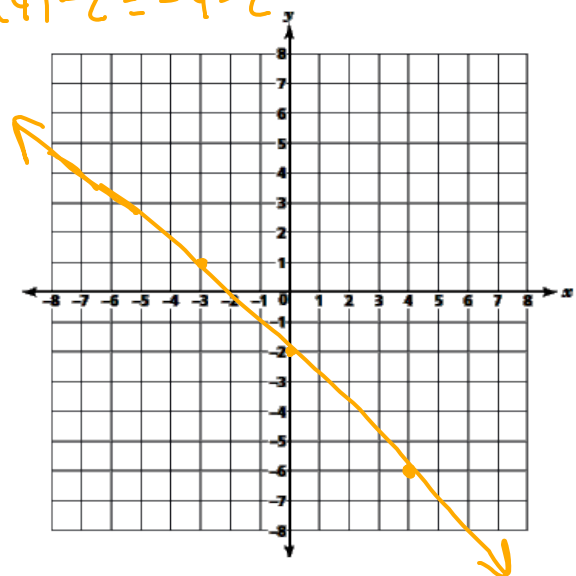
| x | y |
|---------------------|----|
| -4 $-2 \cdot -4$ | 8 |
| 0 $-2 \cdot 0$ | 0 |
| 3 $-2 \cdot 3$ | -6 |



4 Complete the table for $y = -x - 2$ and graph the resulting line.

$-(-3) - 2 = 3 - 2$
 $-(0) - 2 = 0 - 2$
 $-(4) - 2 = -4 - 2$

| x | y |
|----|----|
| -3 | 1 |
| 0 | -2 |
| 4 | -6 |



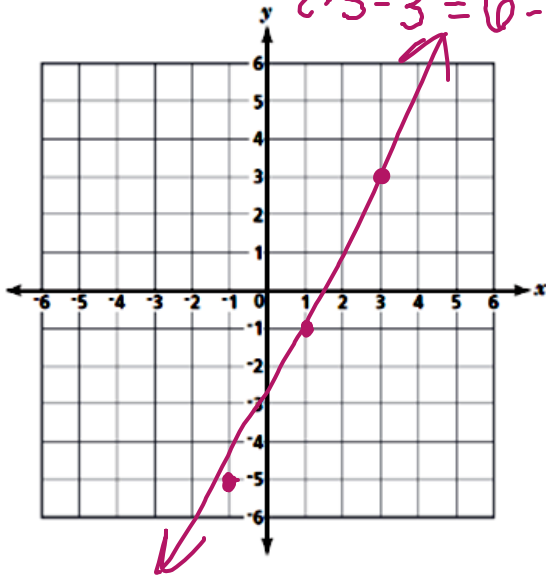
- 5 For the equation $y = 2x - 3$, complete the table for the given values of x . Using the information from the table, graph the line of the equations on the coordinate plane below. Be sure to plot all points from the table and draw a line connecting the points.

| x | y |
|-----|-----|
| -1 | -5 |
| 1 | -1 |
| 3 | 3 |

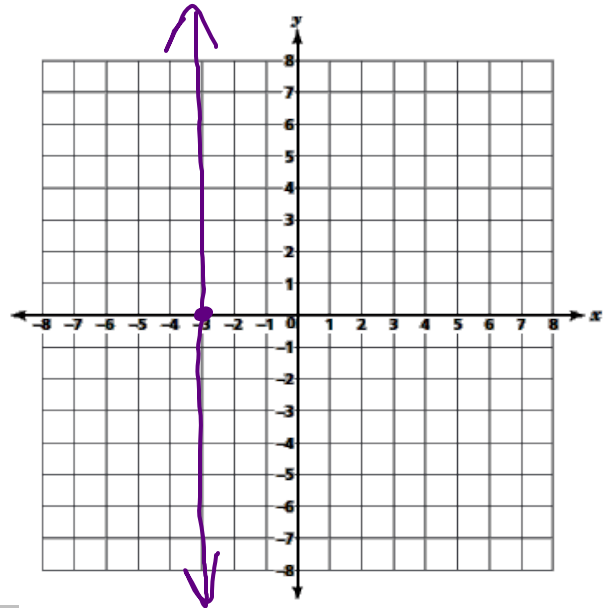
$$2 \cdot -1 - 3 = -2 - 3$$

$$2 \cdot 1 - 3 = 2 - 3$$

$$2 \cdot 3 - 3 = 6 - 3$$



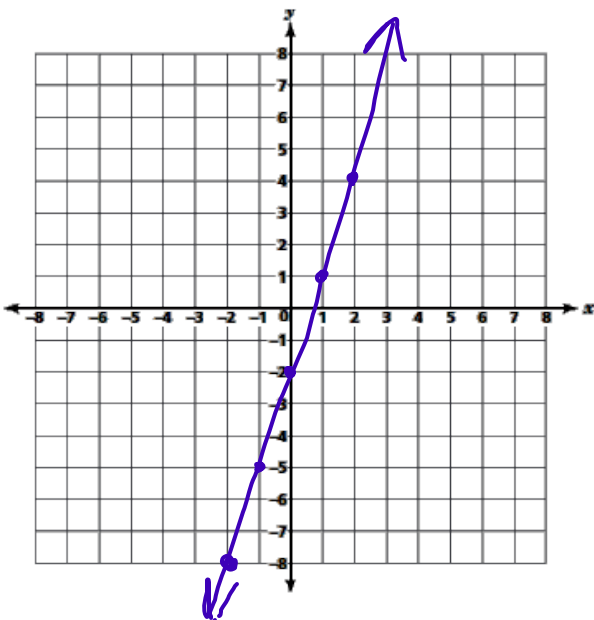
- 7 Graph the line $x = -3$.



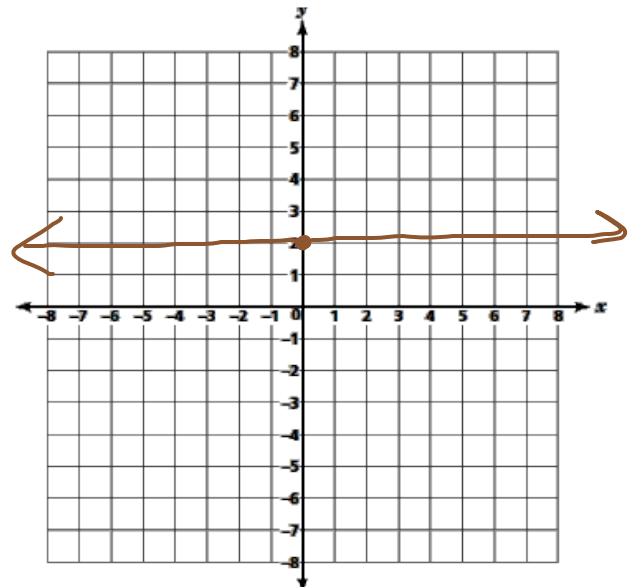
- 6 Complete the table for $y = 3x - 2$ and graph the resulting line.

| | | | | | |
|-----|----|----|----|---|---|
| x | -2 | -1 | 0 | 1 | 2 |
| y | -8 | -5 | -2 | 1 | 4 |

$$3 \cdot 2 - 2 = 6 - 2$$



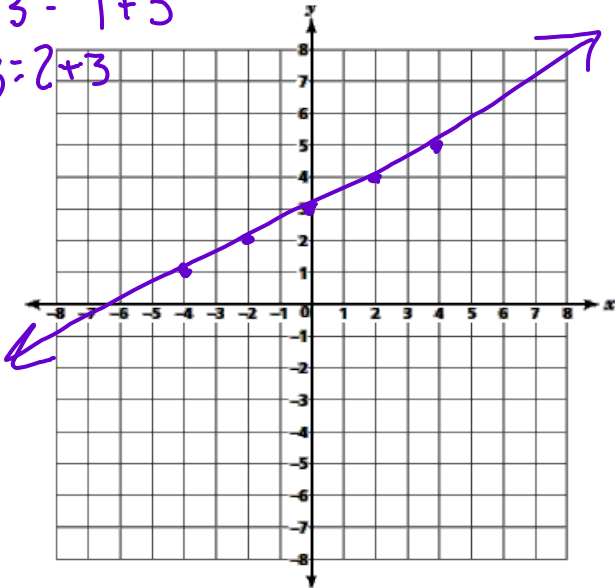
- 8 Graph the line $y = 2$.



9 Complete the table for $y = \frac{1}{2}x + 3$ and graph the resulting line.

| x | y |
|----|---|
| -4 | 1 |
| -2 | 2 |
| 0 | 3 |
| 2 | 4 |
| 4 | 5 |

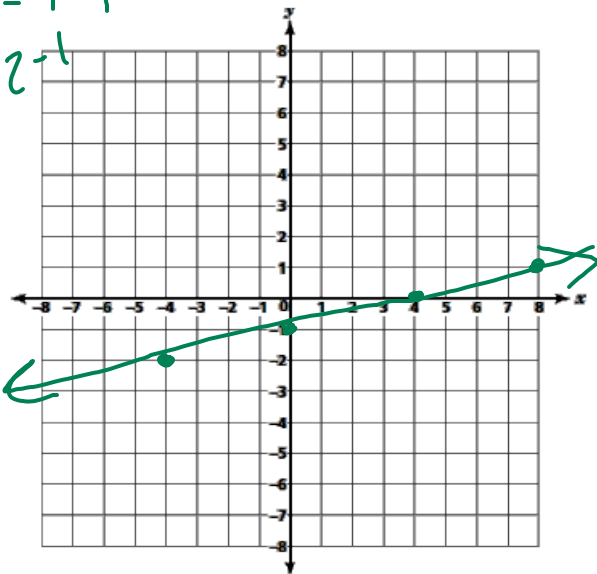
$$\begin{aligned} \frac{1}{2}(-4) + 3 &= -2 + 3 \\ \frac{1}{2}(-2) + 3 &= -1 + 3 \\ \frac{1}{2}(0) + 3 &= 0 + 3 \\ \frac{1}{2}(2) + 3 &= 1 + 3 \\ \frac{1}{2}(4) + 3 &= 2 + 3 \end{aligned}$$



10 Complete the table for $y = \frac{x}{4} - 1$ and graph the resulting line.

| x | y |
|----|----|
| -4 | -2 |
| 0 | -1 |
| 4 | 0 |
| 8 | 1 |

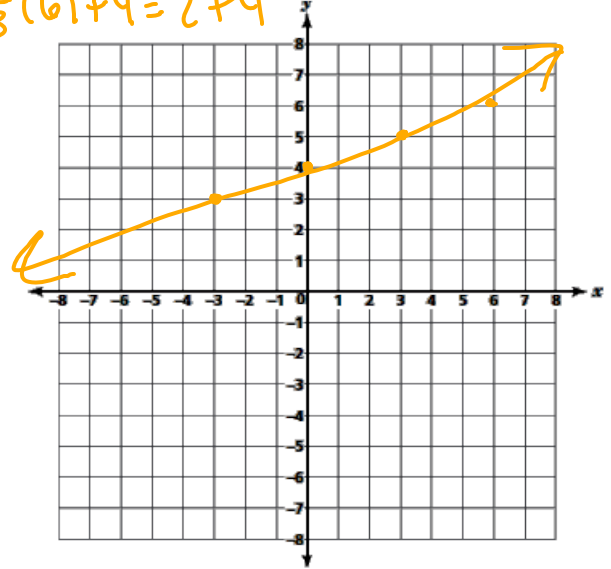
$$\begin{aligned} \frac{-4}{4} - 1 &= -1 - 1 \\ \frac{0}{4} - 1 &= 0 - 1 \\ \frac{4}{4} - 1 &= 1 - 1 \\ \frac{8}{4} - 1 &= 2 - 1 \end{aligned}$$



11 Complete the table for $y = \frac{1}{3}x + 4$ and graph the resulting line.

| x | y |
|----|---|
| -3 | 3 |
| 0 | 4 |
| 3 | 5 |
| 6 | 6 |

$$\begin{aligned} \frac{1}{3}(-3) + 4 &= -1 + 4 \\ \frac{1}{3}(0) + 4 &= 0 + 4 \\ \frac{1}{3}(3) + 4 &= 1 + 4 \\ \frac{1}{3}(6) + 4 &= 2 + 4 \end{aligned}$$



12 Complete the table for $y = \frac{1}{5}x + 1$ and graph the resulting line.

| x | y |
|----|---|
| -5 | 0 |
| 0 | 1 |
| 5 | 2 |

$$\begin{aligned} \frac{1}{5}(-5) + 1 &= -1 + 1 \\ \frac{1}{5}(0) + 1 &= 0 + 1 \\ \frac{1}{5}(5) + 1 &= 1 + 1 \end{aligned}$$

