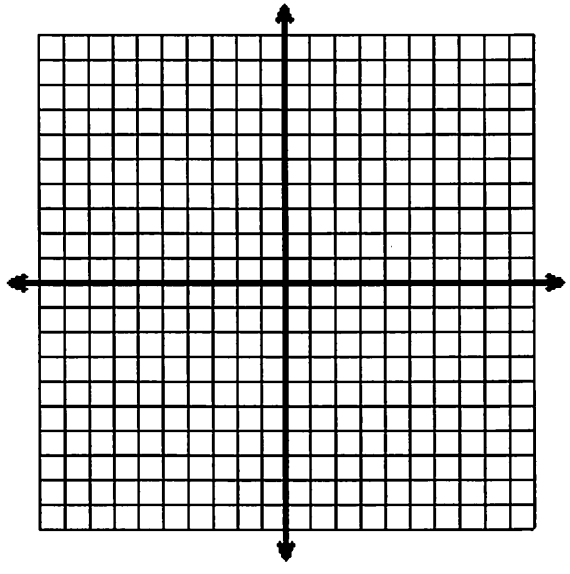
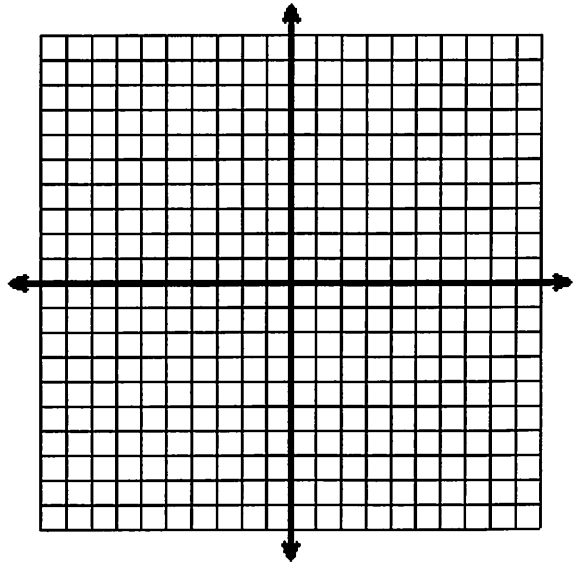
Graphing Linear Functions with the Graphing Calculator

Name _____

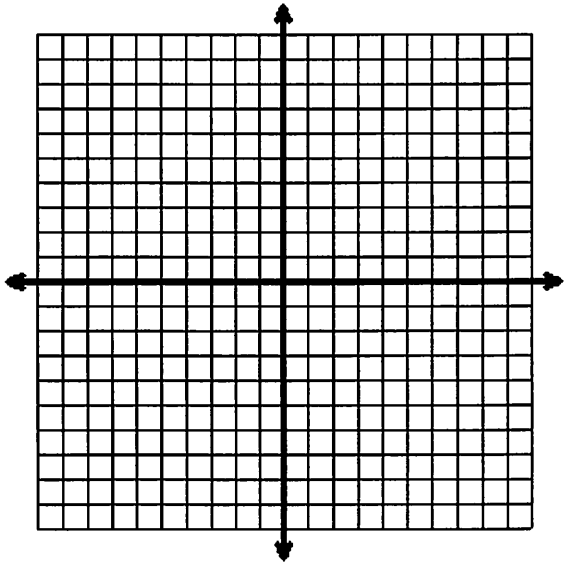
$y = 2x - 5$



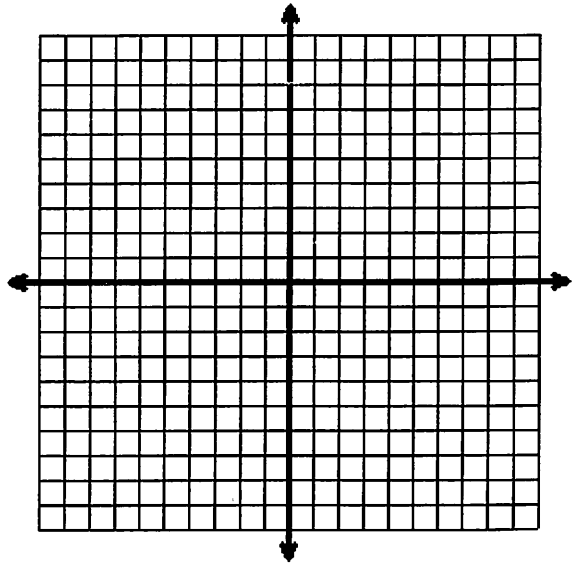
$y = 2x + 1$



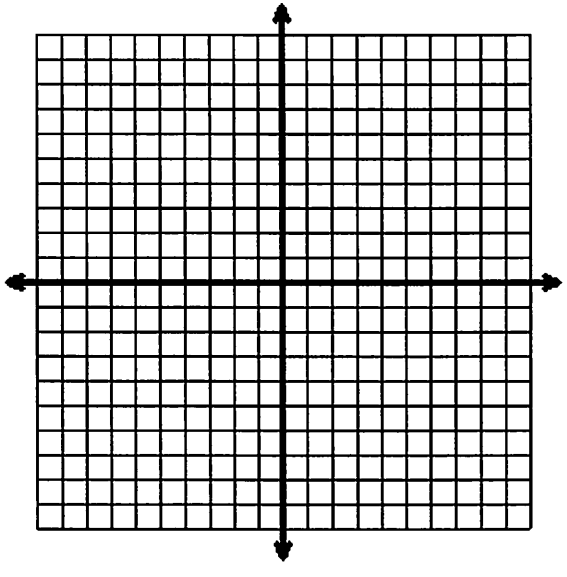
$y = -5x + 4$



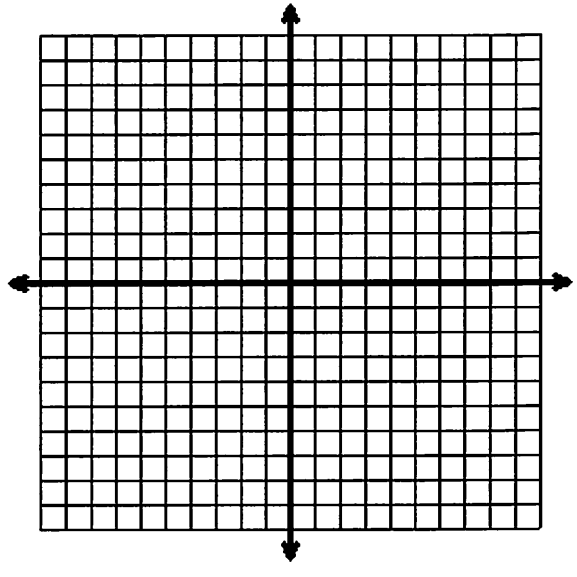
$y = -3x + 4$



$y = \frac{1}{3}x - 2$



$y = \frac{3}{4}x + 3$



Linear Equations are generally in the form of

$$y = mx + b$$

What do these values tell you about the graph?

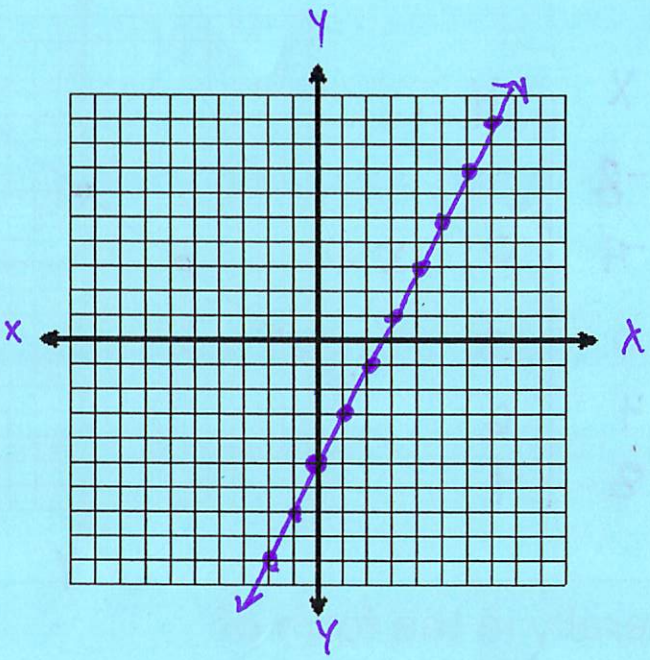
m is 2	m is $\frac{1}{3}$	m is $-\frac{1}{3}$	b is $+5$	b is -6

Graphing Linear Functions with the Graphing Calculator

Name _____

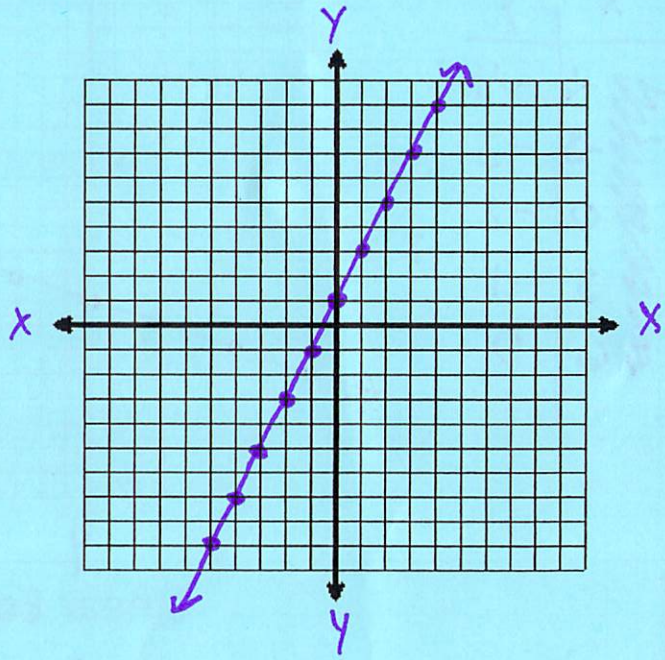
$y = 2x - 5$

x	y
-2	-9
-1	-7
0	-5
1	-3
2	-1
3	1



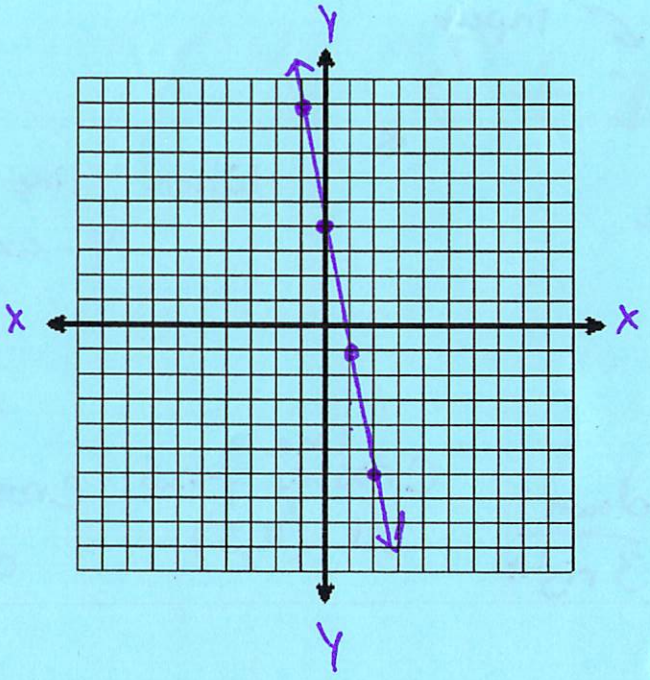
$y = 2x + 1$

x	y
-2	-3
-1	-1
0	1
1	3
2	5
3	7



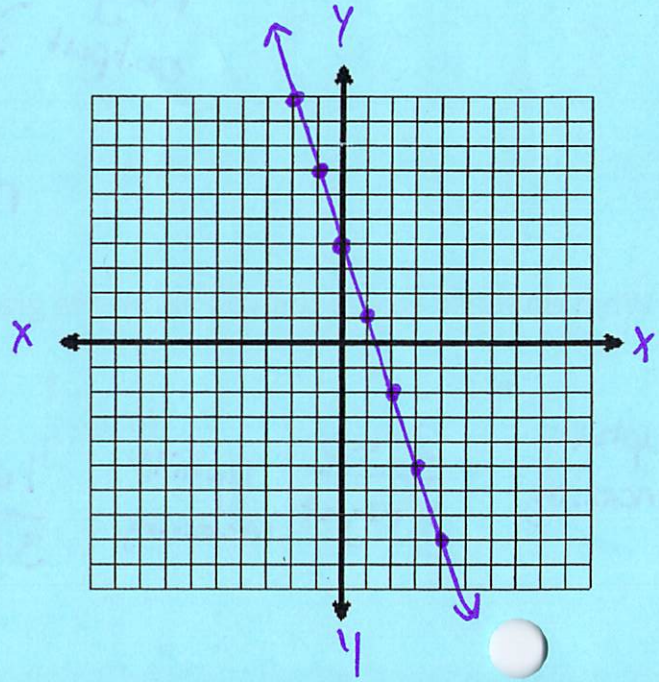
$y = -5x + 4$

x	y
-1	9
0	4
1	-1
2	-6



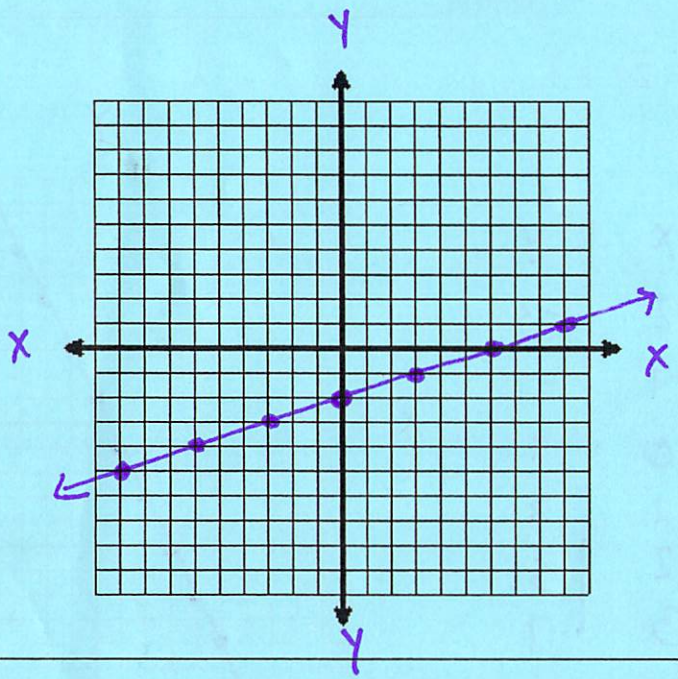
$y = -3x + 4$

x	y
-1	7
0	4
1	1
2	-2
3	-3



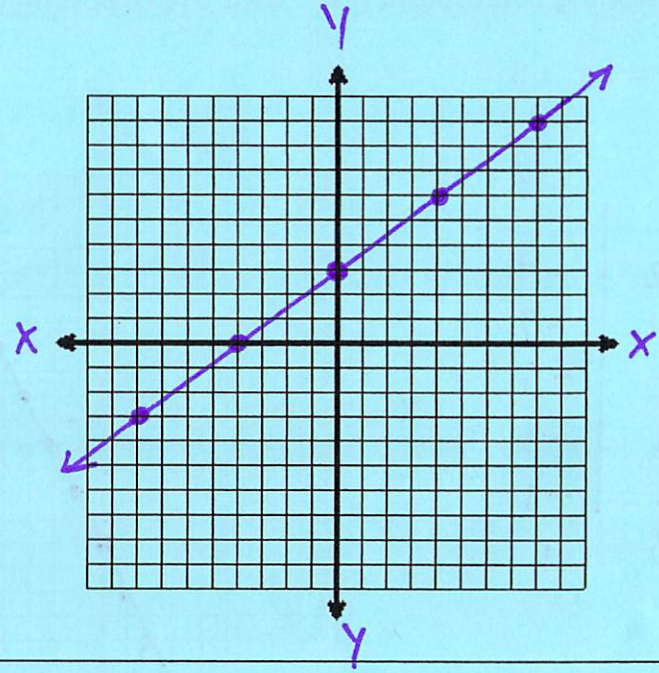
$y = \frac{1}{3}x - 2$

X	Y
-6	-4
-3	-3
0	-2
3	-1
6	0



$y = \frac{3}{4}x + 3$

X	Y
-8	-3
-4	0
0	3
4	6
8	9



Linear Equations are generally in the form of

range output

domain input

$$y = mx + b$$

rate of change / Slope

Where line crosses Y-axis

What do these values tell you about the graph?

m is 2	m is $\frac{1}{3}$	m is $-\frac{1}{3}$	b is +5	b is −6
uphill increasing $\frac{2 \text{ up}}{1 \text{ right}}$	uphill increasing $\frac{1 \text{ up}}{3 \text{ right}}$	downhill decreasing $\frac{\text{down } 1}{3 \text{ right}}$	line Crosses y-axis at (0,5)	line Crosses y-axis at (0,-6)