Graphs Using Slope Intercept Form

The linear equation y = mx + b is written in slope intercept form.

The slope of the line is m.

The y intercept of the line is b.

Find the slope and y intercept of the equation.

$y = 2x + 3$ slope (m)= 2

y intercept (b)= 3

$y = 3/4\ x - 2$ ∴ $m = \frac{3}{4}$ $b = -2$

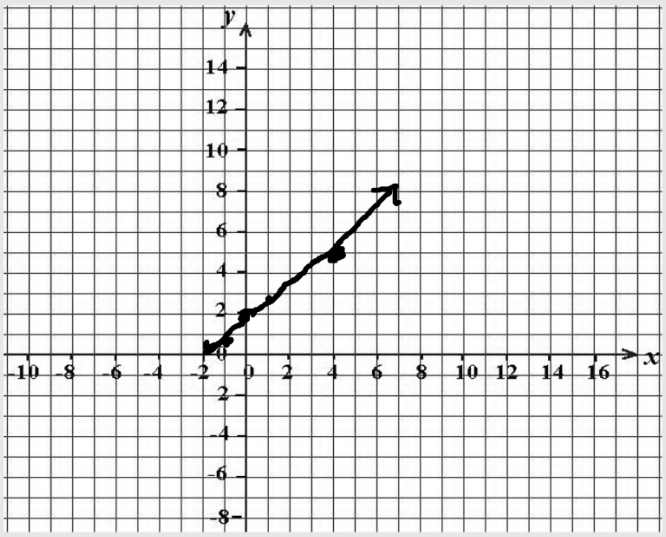
$y = -2x - 6$ $m = -2$ $b = -6$

You can graph an equation in slope intercept form by plotting your y intercept (b) first and using your slope to create more points. (Remember, slope is rise/run.)

Graph y = 3/4 x + 2

b = 2

m = $\frac{3}{4}$ $\frac{\text{rise}}{\text{run}}$



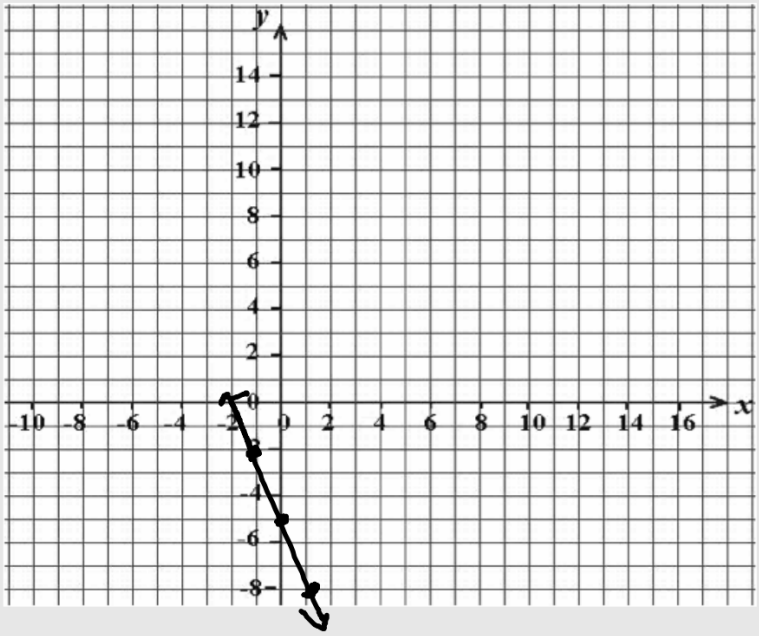
Graph y = -3x - 5

m = -3

b = -5

$\frac{-3}{1}$ $\frac{\text{rise}}{\text{run}}$

$\frac{3}{-1}$

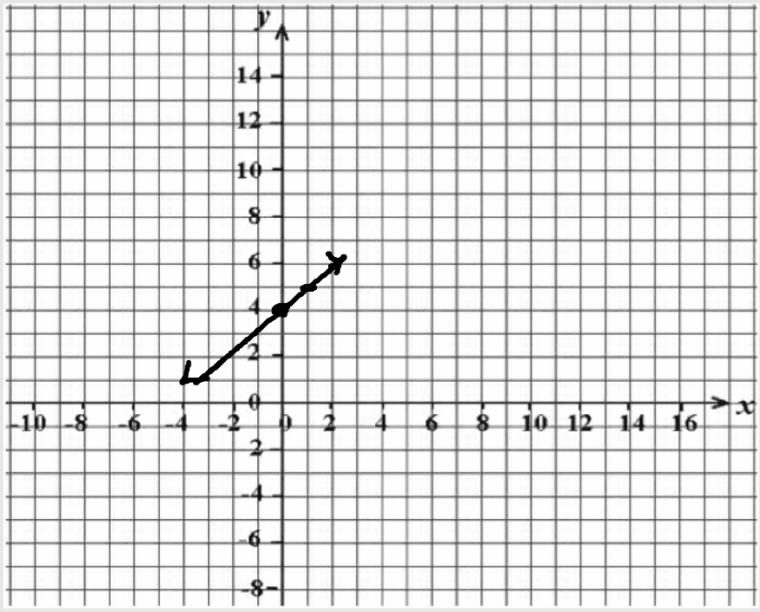


Graph y = x + 4

m = 1

b = 4

$\frac{1}{1}$ $\frac{\text{rise}}{\text{run}}$

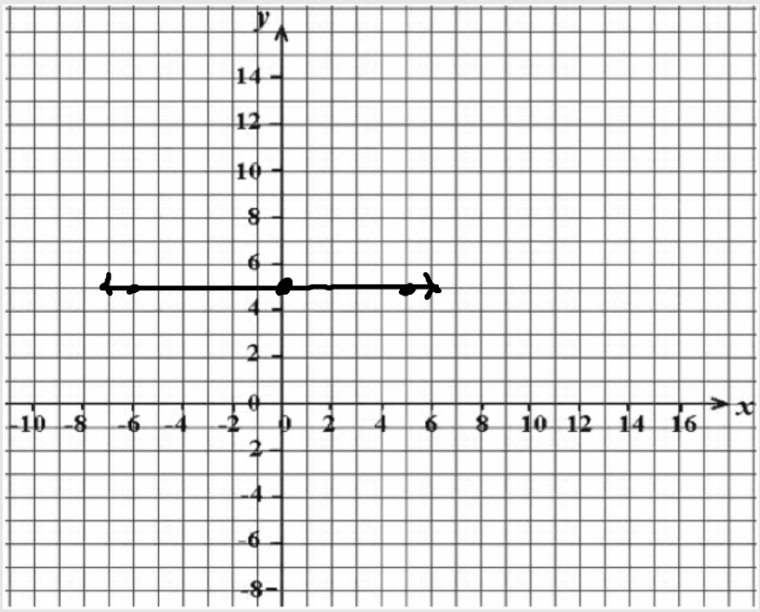


0x

Graph y = 5

m = 0

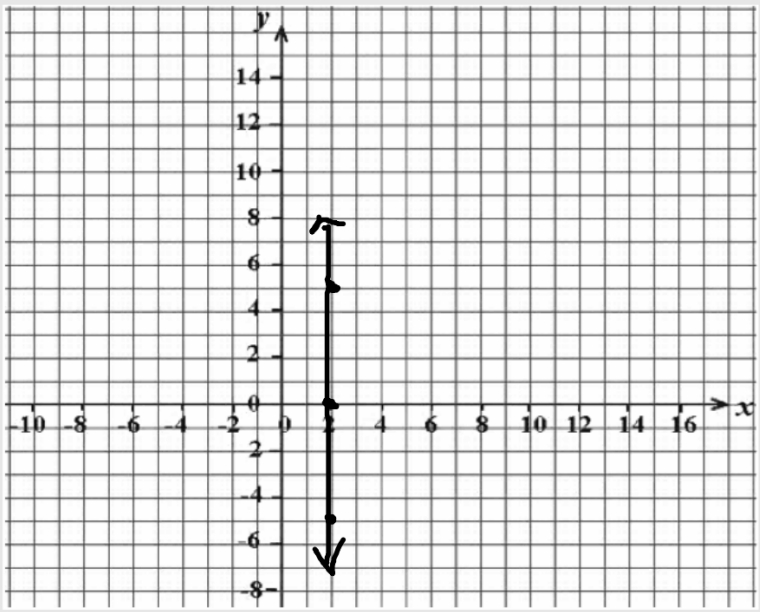
b = 5



Graph x = 2

m = no

b = no



More examples:

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

$y = -1/2x + 1$ $\frac{-1}{2}$ $\frac{\text{rise}}{\text{run}}$ $m = \frac{1}{2}$ $b = 1$ $\frac{1}{-2}$