

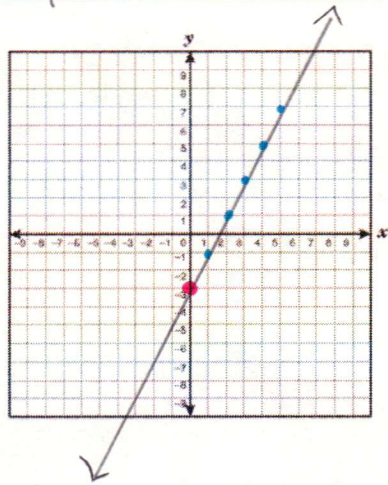
Notes/Assignment 2.7 – Graphing Practice

Graphing from Slope – Intercept Form $y = mx + b$

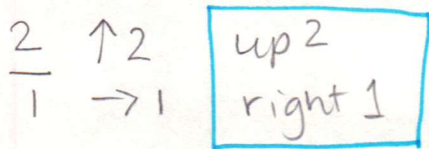
m is the slope. b is the y-intercept.

$y = 2x - 3$ $m = 2$ $b = (0, -3)$

First, graph the y-intercept



Then, count out the slope from the y-intercept



connect the points and extend through entire graph

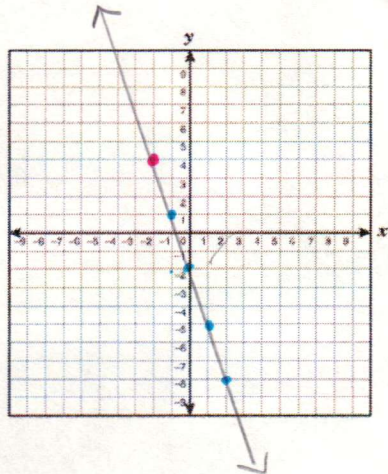
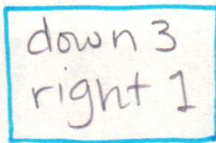
Graphing from Point – Slope Form $y = m(x - x_1) + y_1$

m is the slope. (x_1, y_1) is a point on the line.

$y = -3(x + 2) + 4$ $m = -3$ point: $(-2, 4)$

Option 1: graph the point in the equation

then count out the slope from the point



Option 2:

Simplify into slope-intercept form

$y = -3(x + 2) + 4$

$y = -3x - 6 + 4$

$y = -3x - 2$

You can always make a table!

Graphing Exponential Equations

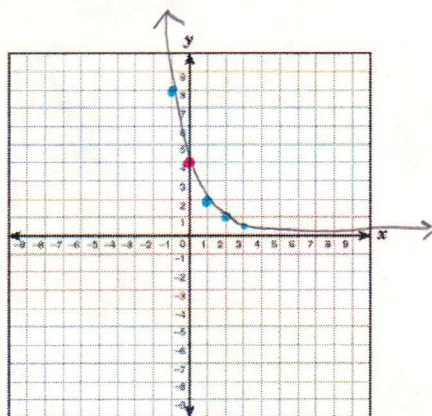
$$y = b(a)^x$$

b is the y-intercept. a is the common ratio.

$$y = 4\left(\frac{1}{2}\right)^x \quad b = (0, 4) \quad a = \frac{1}{2}$$

Option 1: graph the y-intercept

then multiply to get next y value



Option 2: make a table

x	-2	-1	0	1	2
y	16	8	4	2	1

a. $y = 3(2)^x$

b. $y = 9\left(\frac{1}{3}\right)^x$

