3.3 Day 2.

Graphing Linear Functions.

Use a table to graph $y = 2x - 3$

This IS linear.

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

plug in x's get out y's...

$y = 2x - 3$

$y = 2(-2) - 3 = -7$

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

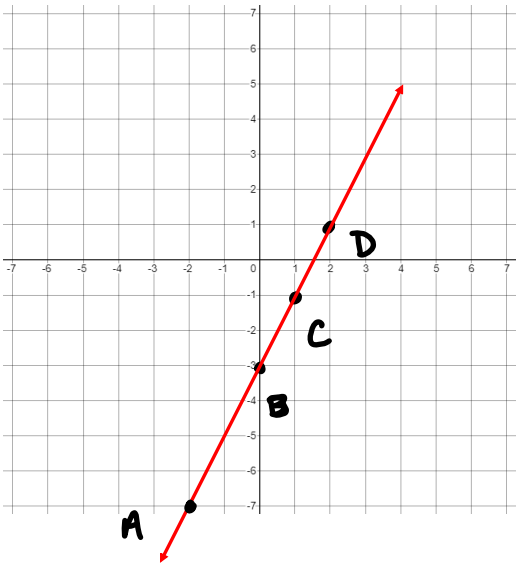
$y = 2(1) - 3 = -1$

$y = 2(2) - 3 = 1$

Now plot these ordered pairs...

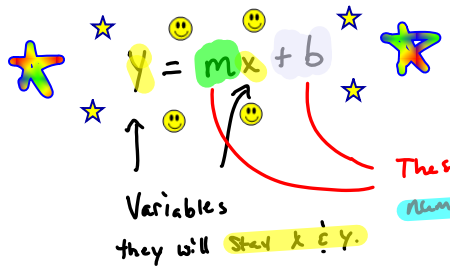
$(-2, -7)$, $(0, -3)$, $(1, -1)$, $(2, 1)$

Labeled A B C D



3.3 Function Notation Day 2

Slope Intercept Form:



The previous function was..

$y = 2x - 3$

so $m = 2$ and $b = -3$

m is your Slope.

b is your y-intercept.

Slope : m

Slope is interpreted as a Fraction.

rise : How far up or down you go to get to the next point on the line.

run : How far Left and Right you go to get to the next point on the line.

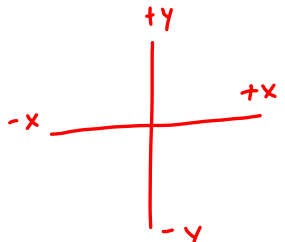
Ex: interpret $\frac{2}{3}$ as a slope.

$m = \frac{2}{3}$

2: is positive, so we go up 2.

3: is positive) so we go Right

Answer:
up 2, Right 3



Facts about Fractions

$-\frac{5}{4} \neq \frac{-5}{-4}$

$-\frac{5}{4} = \frac{-5}{4} = \frac{5}{-4}$

Ex: $m = -\frac{5}{4}$

I convert to $\frac{-5}{4}$

"Rise": -5, down 5
& negative direction

"Run": 4, Right 4

Answer: ↓5, →4

$y = mx + b$. What is B?

b: y-intercept

where the graph touches the y axis.

3.3 Function Notation Day 2

Ex: graph $y = 3x - 4$

Step 1: Identify m & b.

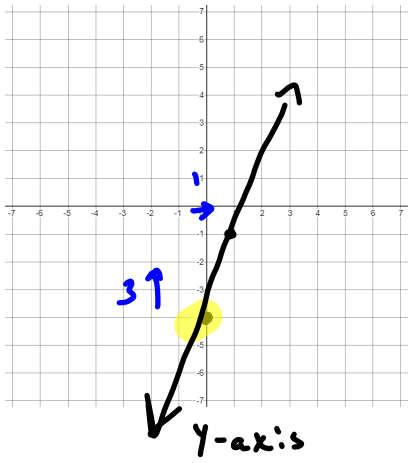
$m: 3$ $b: -4$

Step 2: plot the y-int.

Step 3: $m = 3 = \frac{3}{1}$

$\frac{\text{rise}}{\text{run}}$ so $\frac{3}{1}$ would be ↑3, →1

From the y-int, Do that Slope



Homework:

Page 127, #'s 23-28