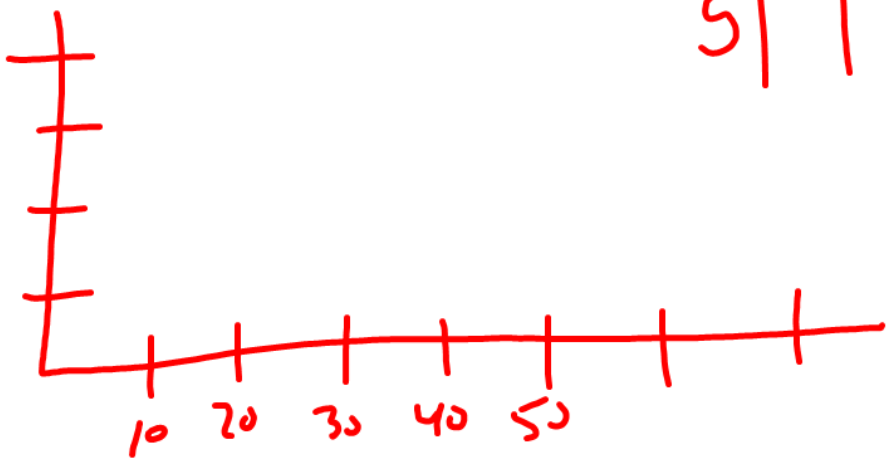
p64(11-29,35)

(14)

x	
5	



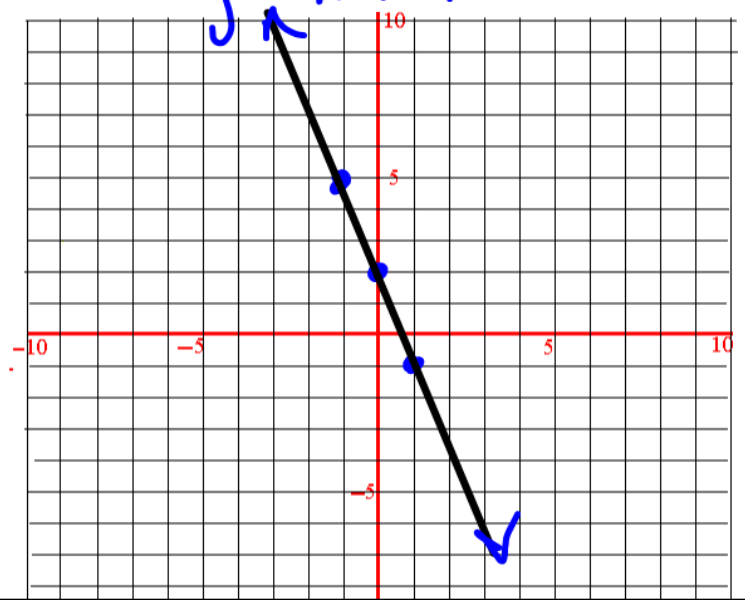
(15) GRAPHING: DRAW A PICTURE (POINTS)

$y = -3x + 2$ ← LINEAR FUNCTION

$y = mx + b$

x	y
-1	5
0	2
1	-1

(-1,5)



2.2: Linear Functions

Linear vs. Non-linear

$y = mx + b$

$f(x) = 2x - 5$

$h(x) = -\frac{1}{4}x + 7$

$f(x) = \frac{x}{5} - 4$

$\frac{1}{5}x - 4$

$f(x) = 3x + 9$

$f(x) = 1x + 1$

$g(x) = 3x + 0$

$g(x) = 2x^2 - 5$

$K(x) = \frac{2}{x} - 5 = 2x^{-1} - 5$

$f(x) = \sqrt{x} + 1$

$x^{\frac{1}{2}} + 1$

$g(x) = x^{-1} + 2$

$x^3 + 4$

Slope-intercept Form

$y = mx + b$

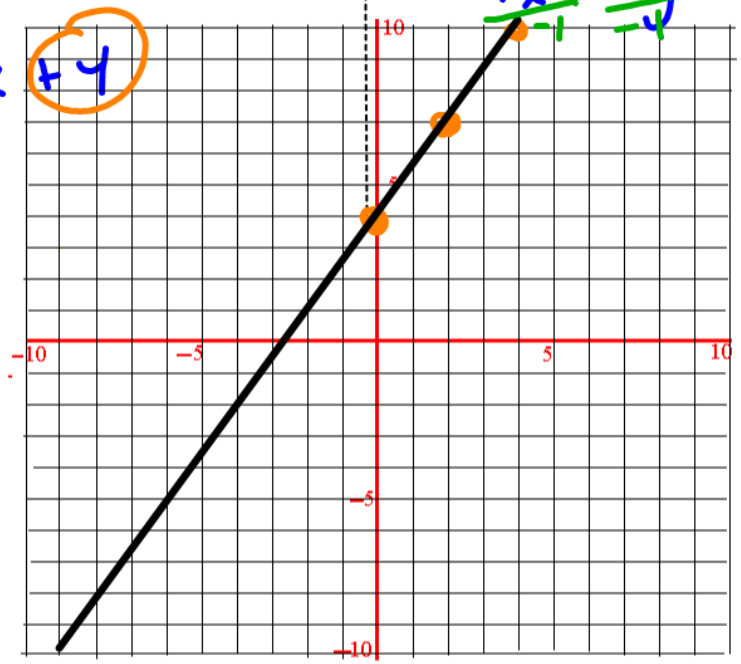
TO GO FROM b

STARTING POINT ON y-AXIS

* SOLVE FOR y
* MOST USEFUL FOR GRAPHING

$\frac{2y}{2} = \frac{3x}{2} + \frac{8}{2}$

$y = \frac{3}{2}x + 4$



Standard Form

$Ax + By = C$

* x AND y ON SAME SIDE
  ~ A HAS TO BE POSITIVE
* MOST USEFUL TO FIND x/y INTERCEPTS

$3y = 4x + 10$

$-4x \quad -4x$

$\frac{-4x}{-1} + \frac{3y}{-1} = \frac{10}{-1}$

$4x - 3y = -10$

What's this a picture of?

Math intercepts

$$2x - 3y = 12$$

if *x intercepts*, team y gets 0 points

x-INT, $y = 0$

$2x \cancel{- 30} = 12$

$2x = 12$

$x = 6$

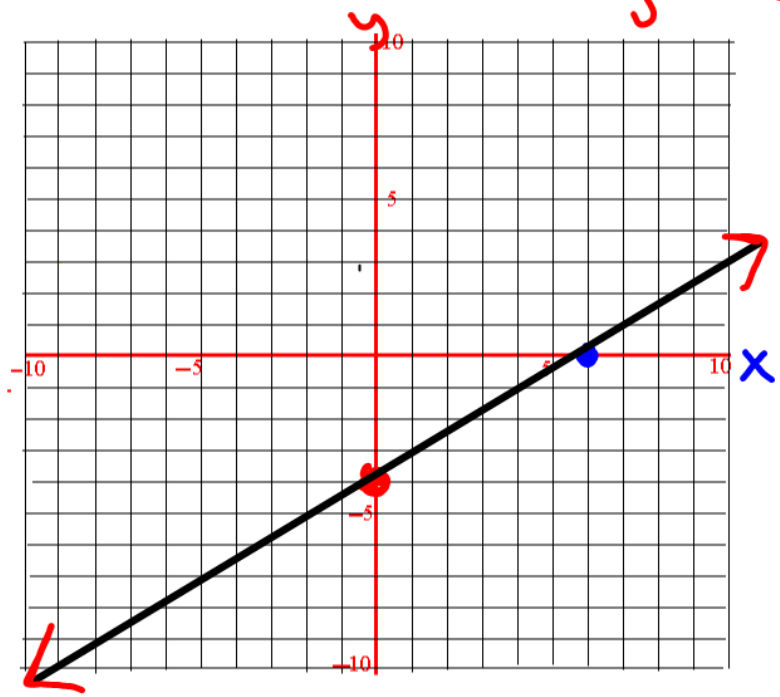
if *y intercepts*, team x gets 0 points

y-INT, $x = 0$

$\cancel{20} - 3y = 12$

$-3y = 12$

$y = -4$



Math Practice:

p71(3-39m3,41,43,45)