4-1 Graphing Equations in Slope-Intercept form

Standard form = $Ax + By = C$

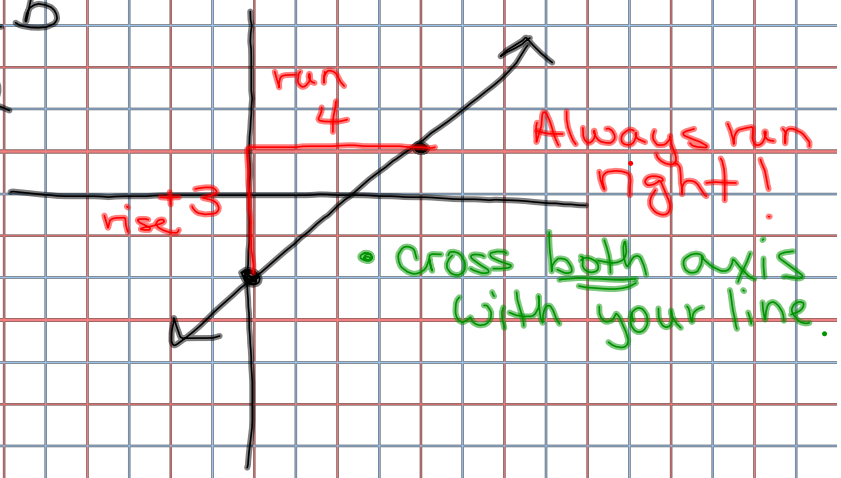
Slope-Intercept form = $y = mx \pm b$

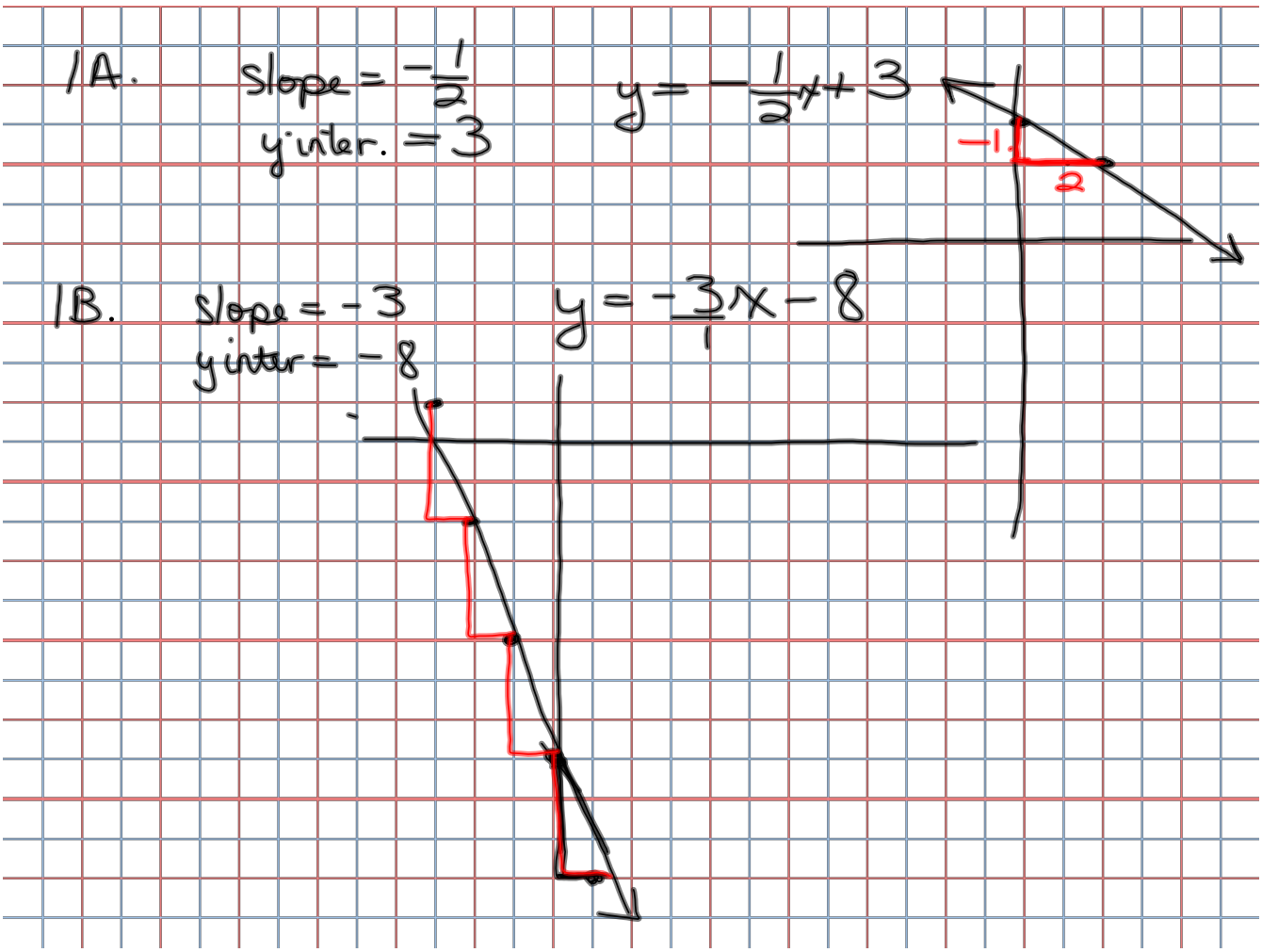
m = slope

b = y-intercept

$y = mx \pm b$

$y = \frac{3}{4} - 2$




1A.
slope = $-\frac{1}{2}$
y inter. = 3
$y = -\frac{1}{2}x + 3$
-1
2
1B.
slope = -3
y inter = -8
$y = -\frac{3}{1}x - 8$

$3x + 2y = 6$ $\qquad y = mx + b$

$-3x \quad -3x$

$\frac{2}{2}y = \frac{-3}{2}x + \frac{6}{2}$ Divide everything by 2.

Simplify: $\boxed{y = \frac{-3}{2}x + 3}$

2A. $3x - 4y = 12$ $\quad y = mx + b$

$-3x \quad -3x$

$\frac{-4y}{-4} = \frac{-3x}{-4} + \frac{12}{-4}$

negative divided by negative

positive divided by a negative

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

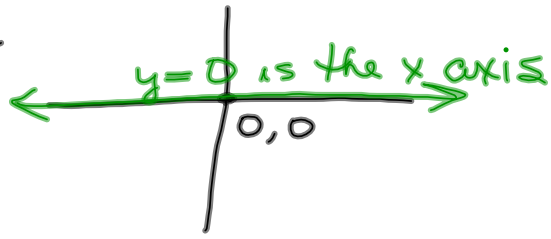
2B. $-2x + 5y = 10$

$+2x \qquad +2x$

$\frac{5}{5}y = \frac{2}{5}x + \frac{10}{5}$

$\boxed{y = \frac{2}{5}x + 2}$

$y = 0$ lies on the x axis



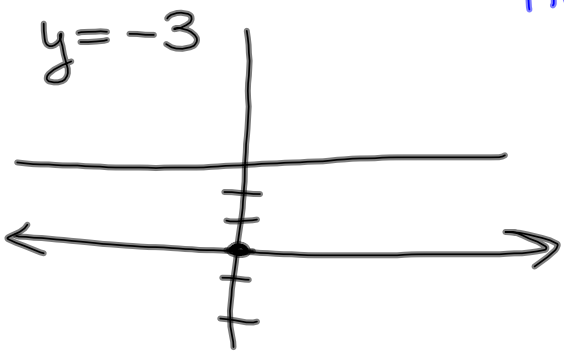
constant function

$f(n) = 0$

$y = 0$

constant functions do not cross the x axis

HORIZONTAL LINES!

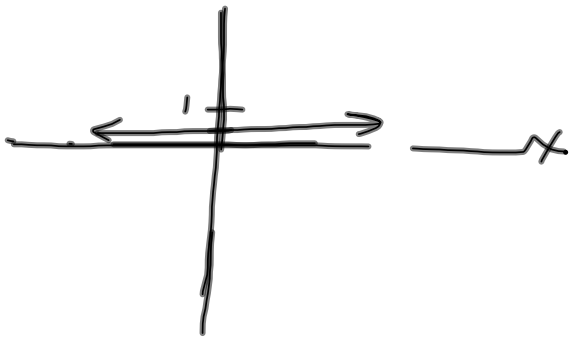


Zero Slope

0

$2y = 1$

$y = \frac{1}{2}$



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

$5 each bought (negative) 1160.00

$y = 5x - 1160$

$P = 5x - 1160$

$P = 5(1400) - 1160$

$P = \$5840.00$