I. Function Arithmetic (p.128):

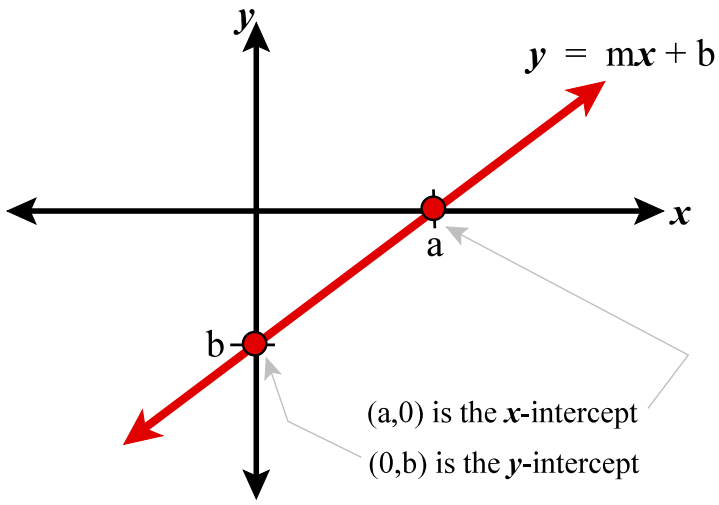
$$[f \pm g](x) = f(x) \pm g(x)$$
$$[f \cdot g](x) = f(x) \times g(x)$$
$$[f \div g](x) = f(x) \div g(x)$$

II. Domain ~ permitted set of x-values
set of Real Numbers or subset (avoid $\div 0$)

III. Examples (pp.132-133): Exercises #8,10,16,22,40

HW: pp.132-133 / Exercises #3-51 (every other odd)

I. *x*- and *y*-intercepts of a line...

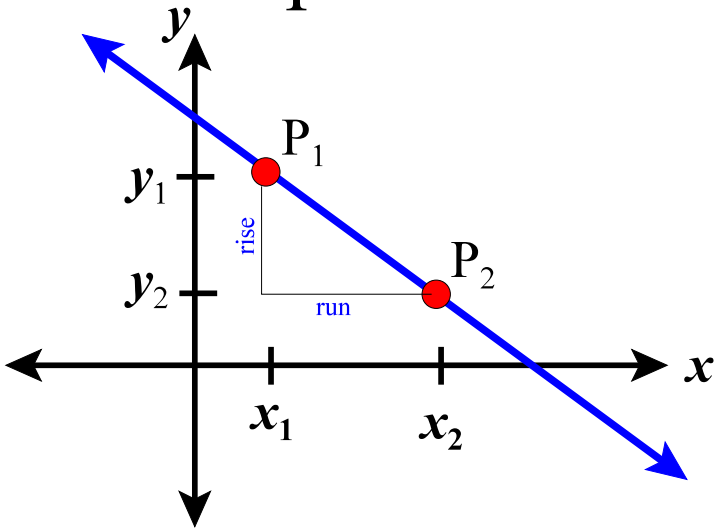


...to find these two points...

Let $x = 0$ in the equation, solve for $y = b$, then let $y = 0$ in the equation, solve for $x = a$.

x	y
0	b
a	0

II. Slope of a line (p.138): quantitative measure of how steep a line is tilted, usually denoted "m"



For any two points on a line,

$P_1(x_1, y_1)$ & $P_2(x_2, y_2)$...

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

☜ "rise" (vertical change) over the ☜ "run" (horizontal change)

III. Equation Forms of a Line:

1. $y = mx + b$ slope-intercept form
2. $Ax + By = C$ standard form

IV. Examples (p.151): Exercise #4

HW: p.151 / Exercises #7,11,15
Read pp.136-150 (section 2.4)