Linear Functions and Their Graphs

Name _____

Date _____ Period _____

Linear Function

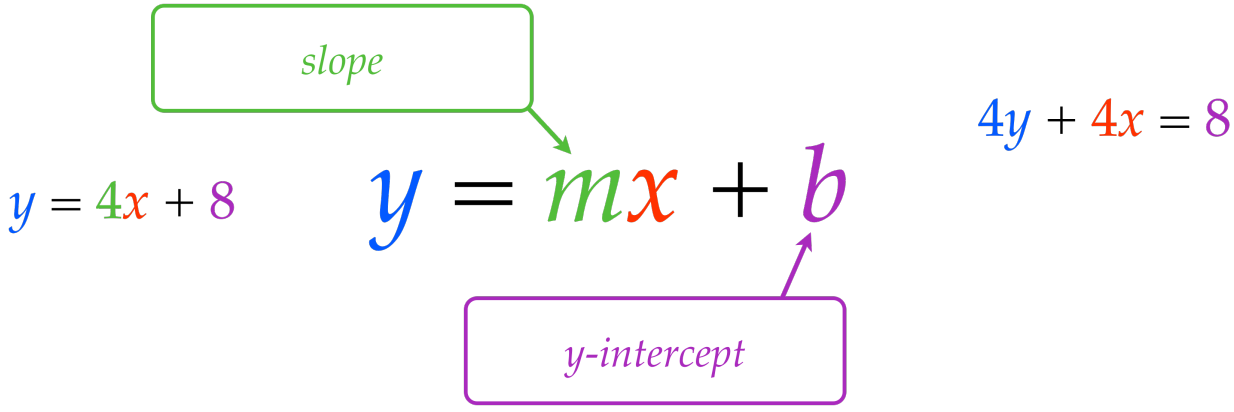
A relationship between two variable, that creates a line

Slope-Intercept Form	Point-Slope Form	Standard Form
$y = mx + b$	$y - y_1 = m(x - x_1)$	$Ax + By = C$
m = *slope* b = *y-intercept*	m = *slope* (x_1, y_1) = *Point*	A is *positive* A, B, and C are integers

Linear Function

A relationship between two variable, that creates a line

Slope-Intercept Form



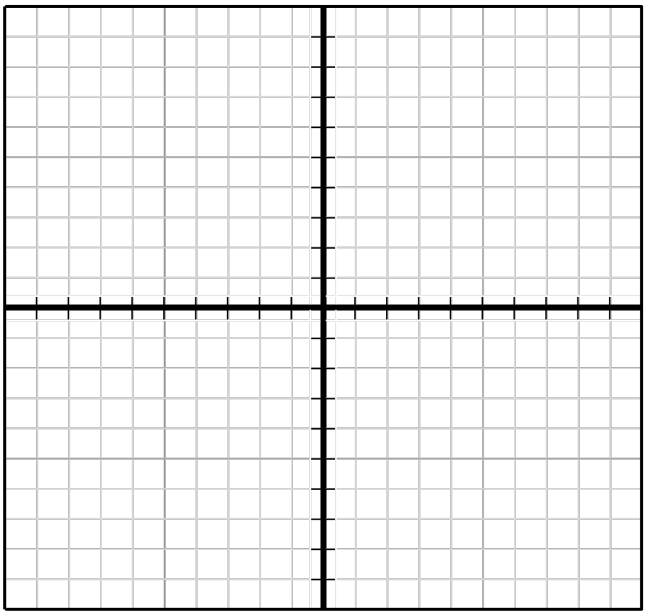
$y = 4x + 8$

$4y + 4x = 8$

Graphing Lines in Slope-Intercept Form

$y = mx + b$

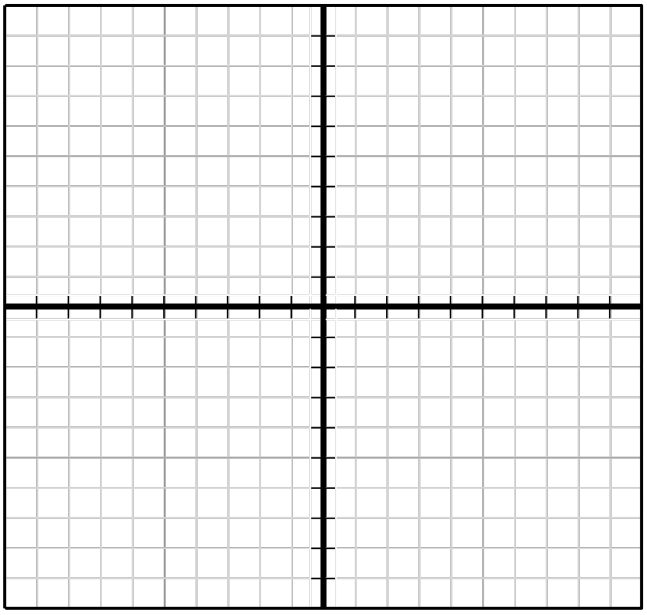
$$y = 2x - 4$$



Graphing Lines in Slope-Intercept Form

$y = mx + b$

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



Finding x and y intercepts of a line.

$$y = 2x - 4$$

To find x-intercept
set $y = 0$, solve for x

To find y-intercept
set $x = 0$, solve for y