

Agenda

Homework:

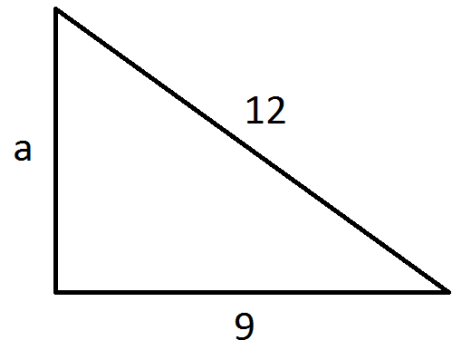
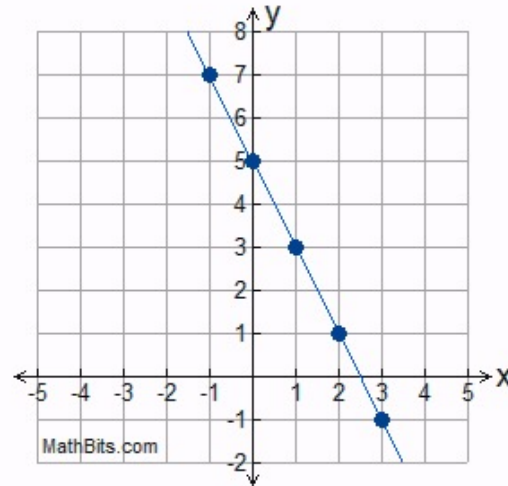
- Linear Equations (Graphs) WS
- AM

Materials:

- **MATH** Notebook
- Calculator (if needed)

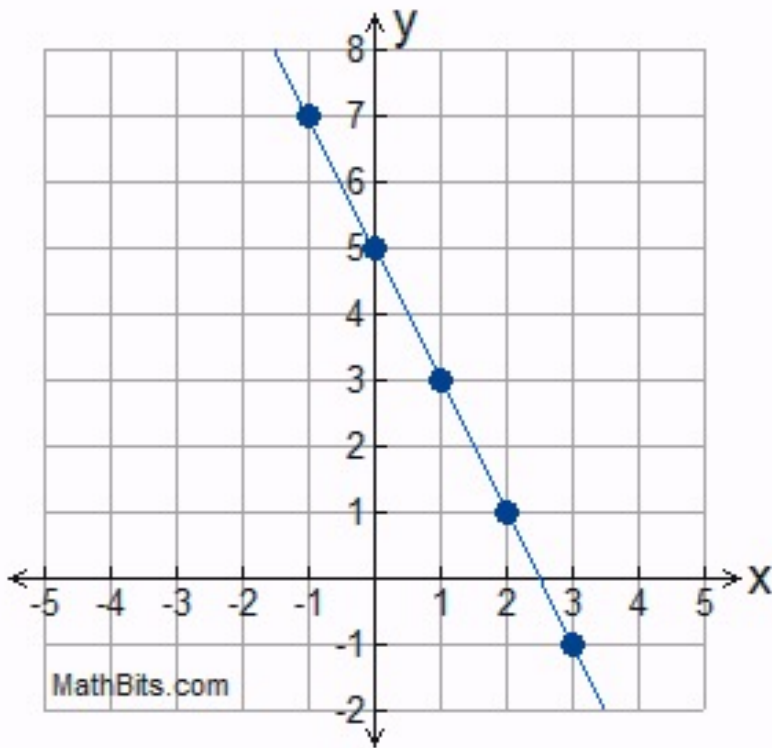
Do Now:

- Take out homework
- On your DESK:
 1. Find the slope of this graph:
 2. Calculate the missing side:

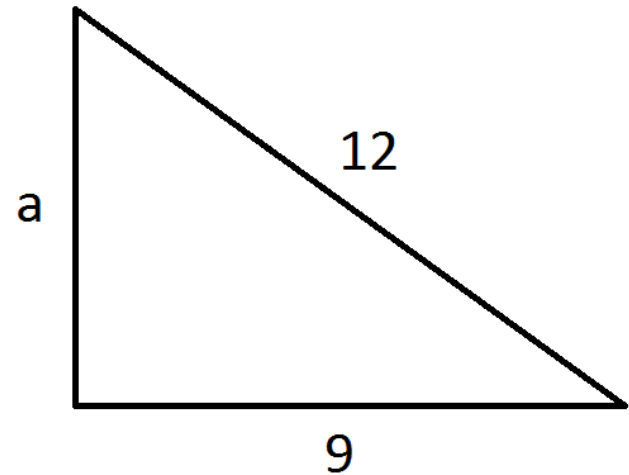


Do Now

1) Find the slope of this graph:



2) Calculate the length of the missing side:





Set up Cornell Notes

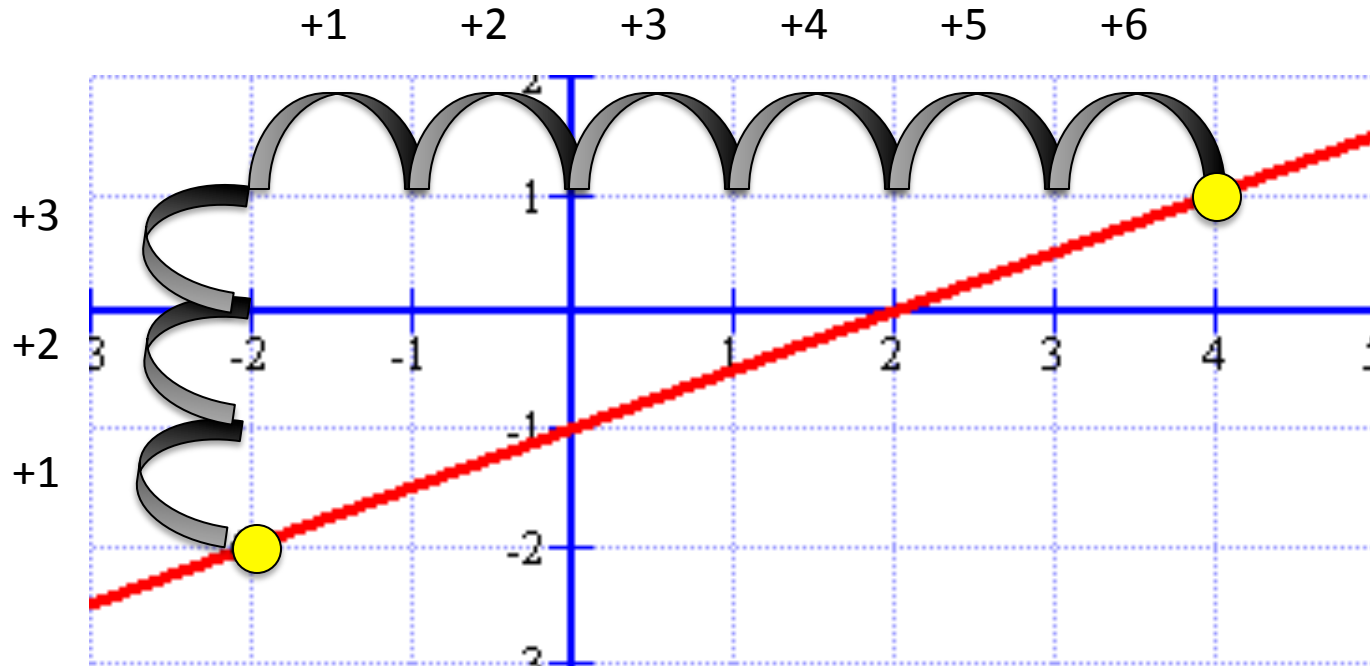
- **Topic:** Linear Functions - Graph $1/20$
- **EQ:** What is slope-intercept form? How do you construct a linear function in slope-intercept form given a graph?
- Update your **Table of Contents**

Mod	Word	Definition	Go Math Page #
3	Slope (m)	Measurement of the “steepness” of a line; Rate of change; Rise/Run	77
4	y-intercept (b)	The point where a graph crosses the y-axis	101
4	Slope-Intercept Form	And equation for a straight line; The equation is $y = mx + b$	97

Recap: How do you calculate the slope of a function?

- $\frac{\text{Change in } y}{\text{Change in } x}$
- $\frac{\text{Rise}}{\text{Run}}$
- $\frac{y_2 - y_1}{x_2 - x_1}$

Recap: How do you find the slope when given a graph?

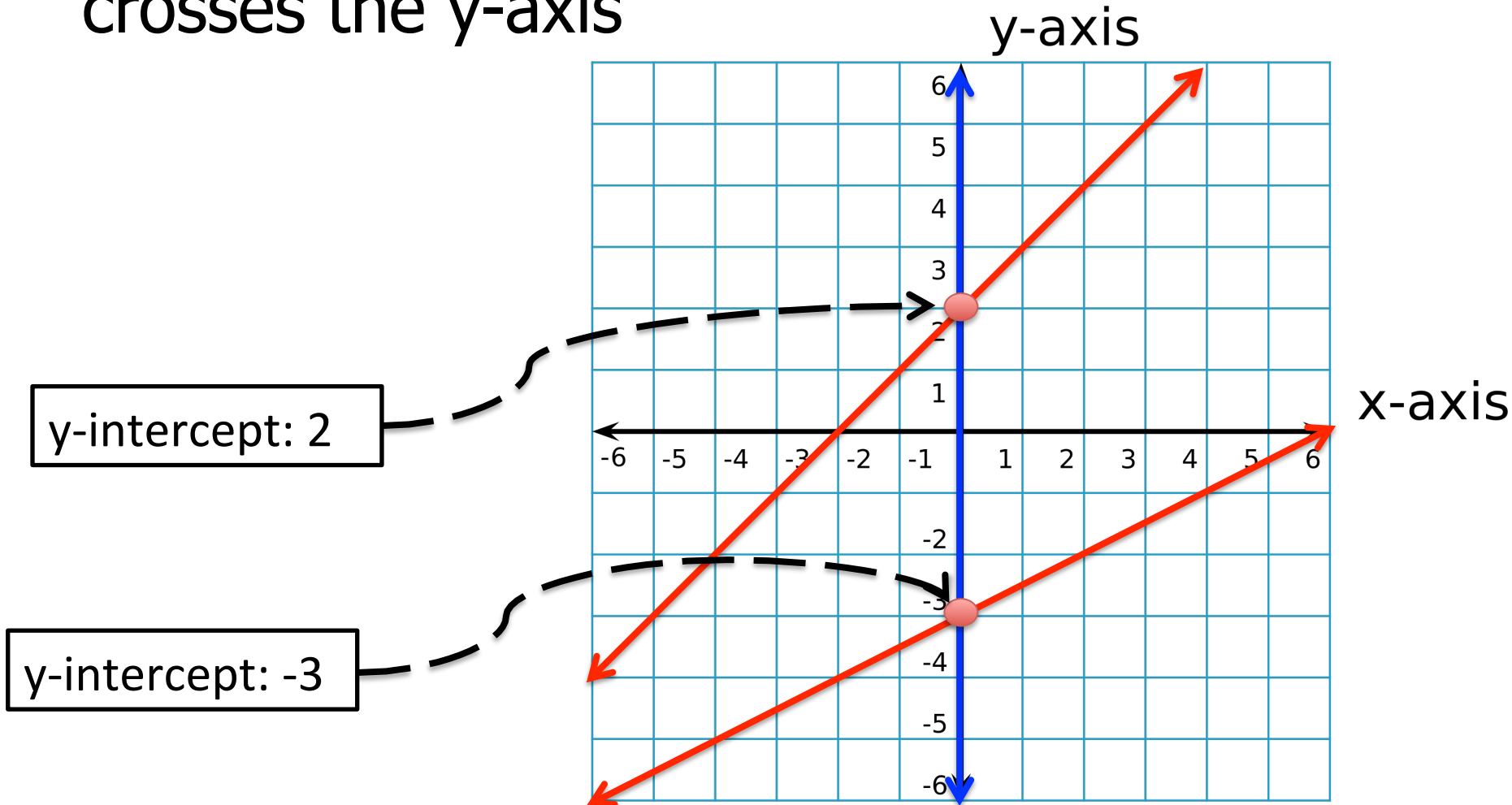


$$\frac{\textit{rise}}{\textit{run}} = \frac{+3}{+6} = \frac{\boxed{1}}{\boxed{2}}$$

What is a y-intercept?



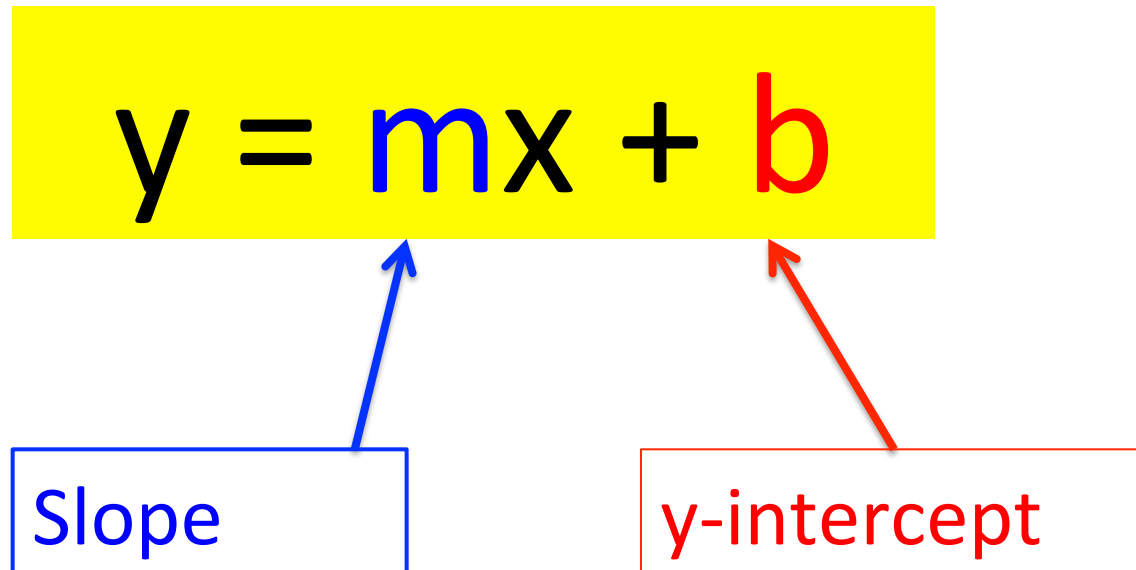
- y-intercept: The point on your graph that crosses the y-axis



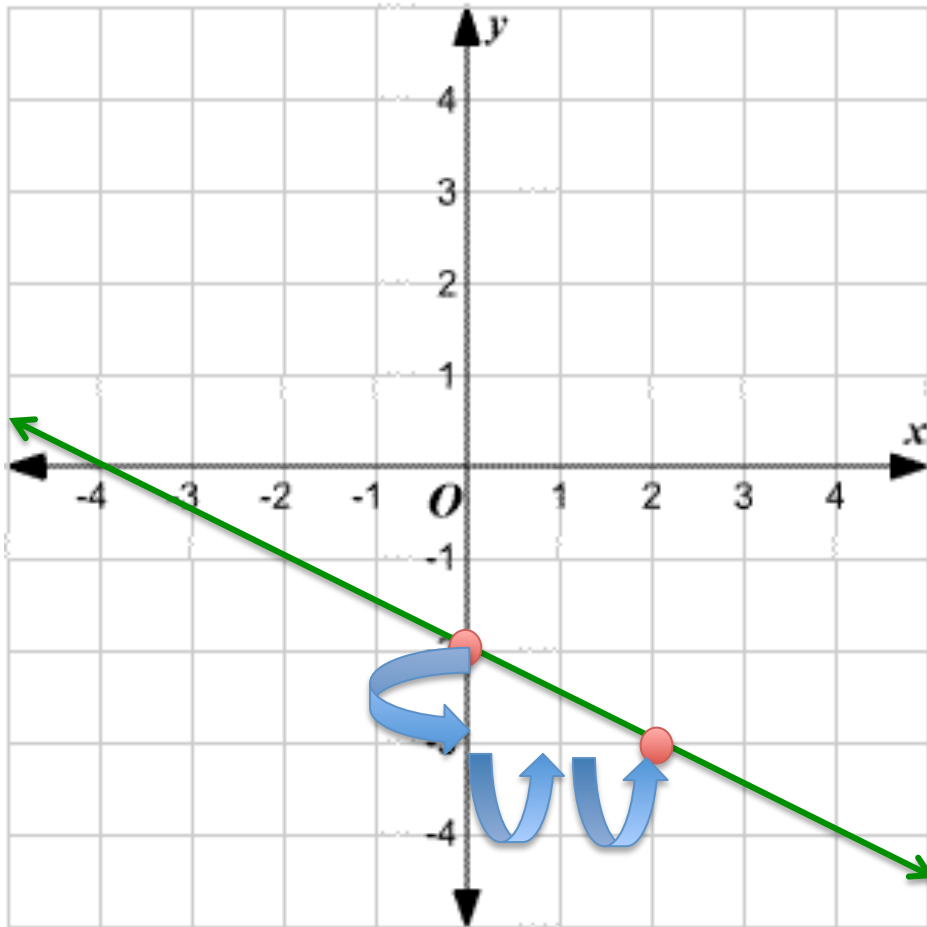


What is slope-intercept form?

- Equation for a STRAIGHT LINE (linear) that identifies the SLOPE & Y-INTERCEPT



Find the equation of the following graph? 



1. Locate the y-intercept (b)

$$b = -2$$

2. Calculate the slope (m)

$$\frac{\text{rise}}{\text{run}} = \frac{-1}{+2} = m = -\frac{1}{2}$$

3. Plug in m & b into the $y = mx + b$ form

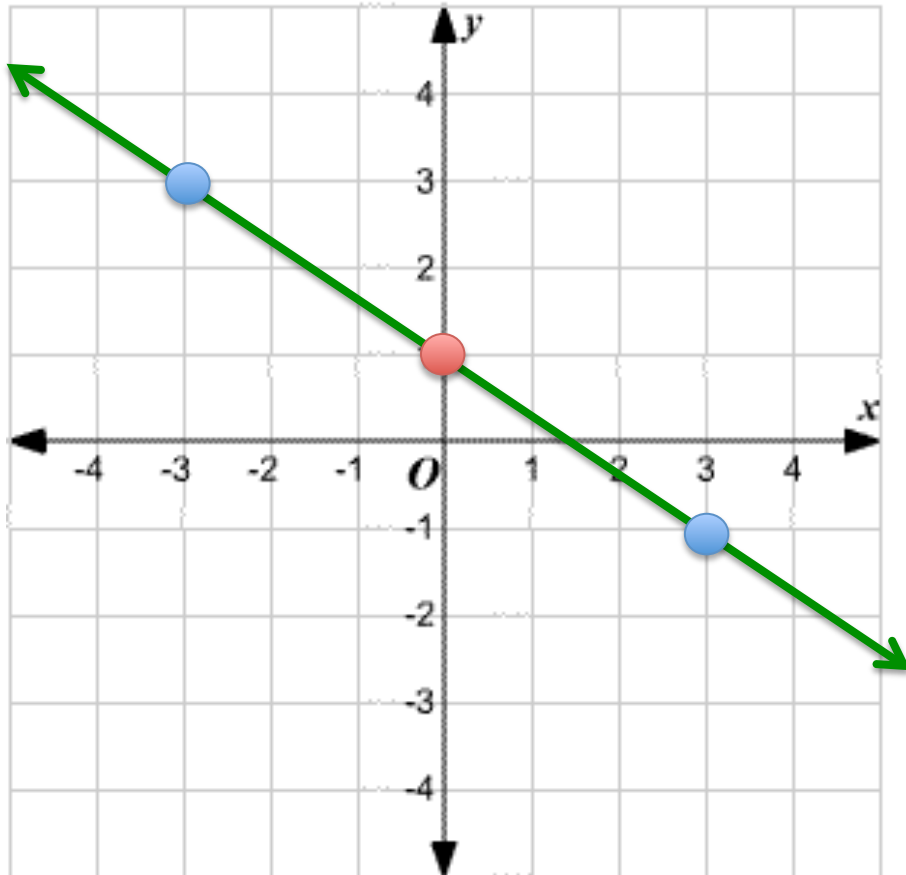
$$y = mx + b$$

Practice Problems

How do you find points on a line to create an equation $y=mx+b$?



- Find the y-intercept and one other point on a “nice intersection” of the grid lines



1) y – intercept: $+1$

2) Slope: $-2/3$

3) Equation:

$$y = m x + b$$

Practice Problems