

Warm-Up

1. What is the slope and y-intercept of each linear equation?

a) $y = 4x - 2$

b) $y = -1/2x + 5$

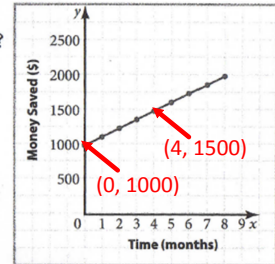
c) $y = 3x$

d) $y = 9$

Homework Take-Up

7. A graph of Marina's college fund is shown.

- a) What is the slope of this line?
- b) What does the slope represent?
- c) What is the y-intercept?
- d) What does this number represent?
- e) Write an equation that represents the amount in Marina's college fund.



UNIT 2: Graphing Linear Relations

Graphing Linear Equations in the Form $y=mx+b$

Learning Goal:

I will learn how to graph a linear equation in the form $y = mx + b$.



Graphing Linear Equations in the Form $y = mx + b$

REVIEW

$$y = mx + b$$

slope
y-intercept

Write an Equation in $y = mx + b$ from a Graph

- Step 1: First, find your y-intercept on the graph. This is your b value.
- Step 2: Find the slope by counting rise/run from one point on the line (this can be the y-intercept) to a second point on the line. This will be your m value.
- Step 3: Substitute the b and m value into the equation $y = mx + b$.

Graphing From Equation & Vice Versa (Lesson).notebook

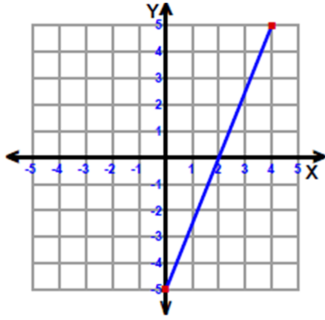
Write the equation $y = mx + b$ from the graph.

Example 1:

$b =$

$m =$

Equation:

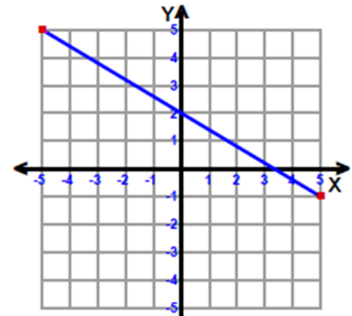


Example 2:

$b =$

$m =$

Equation:

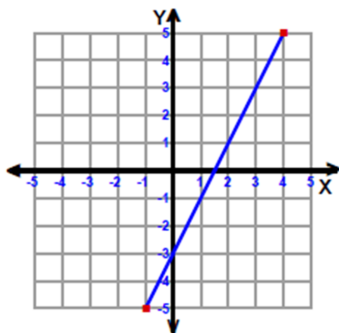


Example 3:

$b =$

$m =$

Equation:

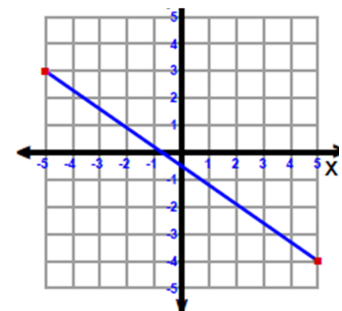


Example 4:

$b =$

$m =$

Equation:



Graphing From Equation & Vice Versa (Lesson).notebook

Plotting a Graph Using $y = mx + b$

Step 1: First plot the **y-intercept** point.

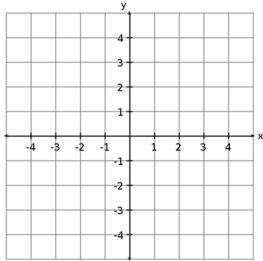
Step 2: Then use **slope (rise/run)** to plot the **second point**.

Example 1:

$$y = x + 1$$

$m =$

$b =$

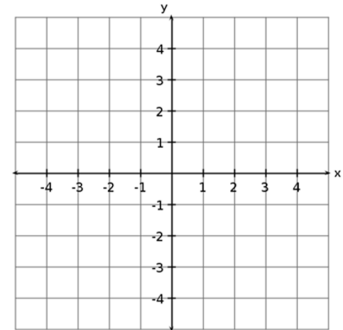


Example 2:

$$y = 2x - 2$$

$m =$

$b =$

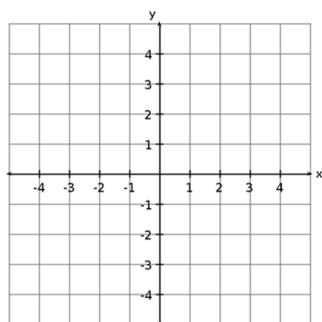


Example 3:

$$y = -x + 3$$

$m =$

$b =$

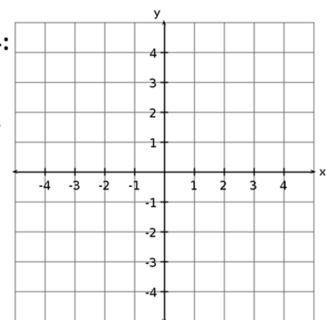


Example 4:

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

$m =$

$b =$



UNIT 2: Graphing Linear Relations

Graph Linear Equations in Form $y = mx + b$

Learning Goal:

I will learn how to graph a linear equation in the form $y = mx + b$.

Success Criteria:

To be successful, I must be able to..

- Find the slope and y-intercept from a graph and create an equation in the form $y = mx + b$
- Identify the slope and y-intercept from an equation and draw a graph

Homework:

Worksheets:

"What Did the Ape Think of the Grape's House?" and "Sketch the Graph of Each Line"