

TODAY'S DATE: 1/3/20

Homework

Have a great weekend!

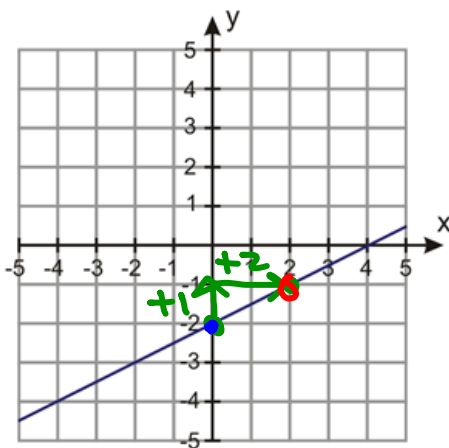
Take a packet from the bin!

Learning Target: I can write the equation of a line given a graph.



Learning Target: I can write an equation to represent a graph.

Warm Up: Write down everything you can determine about the diagram below-



Everything I know about the graph to the left:

positive slope

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

(2, -1) is a solution.

linear

$$y = mx + b$$

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

Guided Practice: How to determine the equation of the line...

Exercise 1- What is the equation of the graph, in slope-intercept form:

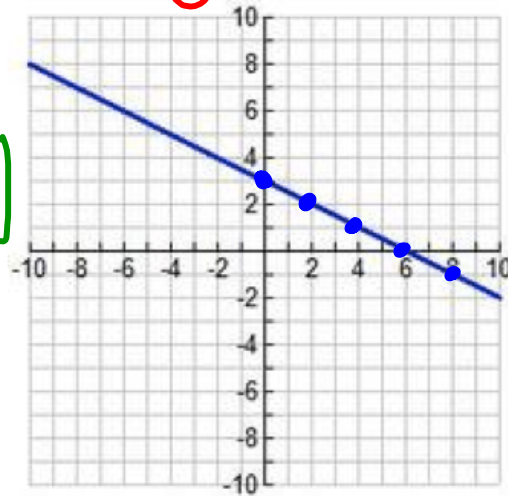
$$y = mx + b$$

(a) Is the slope positive or negative?

Negative

(b) What is the slope?

$$m = \frac{\text{rise}}{\text{run}} = \frac{-2}{4} = \boxed{\frac{-1}{2}}$$



(c) What is the y-intercept?

$$b = 3$$

(d) $m =$

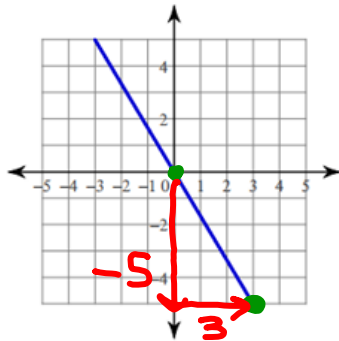
$$m = \frac{-1}{2}$$

$$b = 3$$

(e) What is the equation of the line, in slope-intercept form?

$$y = -\frac{1}{2}x + 3$$

Exercise 2-



$$m = \frac{\text{rise}}{\text{run}} = \frac{-5}{3}$$

$$b = 0$$

The equation is

$$y = -\frac{5}{3}x$$

Exercise 3-



$$m = \frac{-40}{1} = -40$$

$$b = 160$$

The equation is

$$y = -40x + 160$$

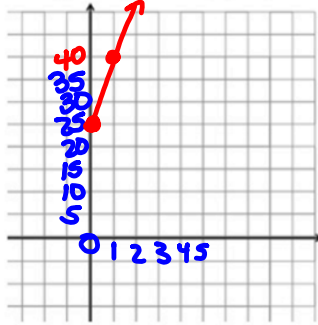
Problem Set: Identify the slope and y-intercept, and then write the equation of the line in slope-intercept form.

<p>1.</p> <p>$m = \frac{\text{rise}}{\text{run}} = \frac{3}{1}$</p> <p>$b = 0$</p> <p>$y = 3x$</p> <p>$y = 3x + 0$</p>	<p>2.</p> <p>$m = \frac{1}{1} = 1$</p> <p>$b = 5$</p> <p>$y = 1x + 5$</p>
<p>3.</p> <p>$m = -\frac{1}{2}$</p> <p>$b = 1$</p> <p>$y = -\frac{1}{2}x + 1$</p>	<p>4.</p> <p>$m = 0$</p> <p>$b = 4$</p> <p>$y = 4$</p> <p>$y = 0x + 4$</p>

<p>5.</p>	<p>6.</p>
<p>7.</p>	<p>8.</p> <p>$x = 3$</p> <p>There is no m, or b.</p>

9. **Challenge:** Mrs. Flowers joined a gym. She pays \$25 to sign up and then \$15 per month.

Label the y-intercept, the slope, and your axes.



(a) Write an equation and graph it

$$y = 15x + 25$$

(b) Use your graph to determine a solution

(c) How much will Mrs. Flowers pay if she used the gym for 5 months?