

Chapter 8 Section 7

out graph paper

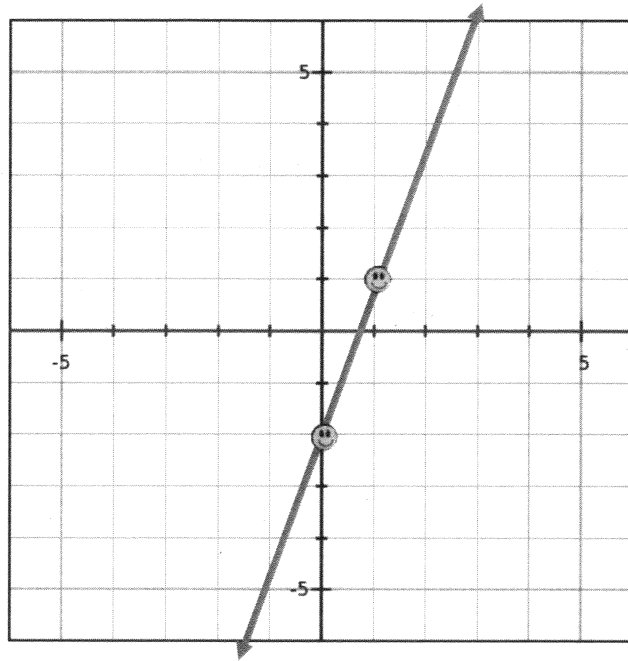
Take out graph paper

1. (0,-2) (1,1)

$$m = \frac{3}{1}$$

$$b = -2$$

Equation:



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

$$y = mx + b$$

m = slope

b = y-intercept

* given two points find the slope, y-intercept, equation

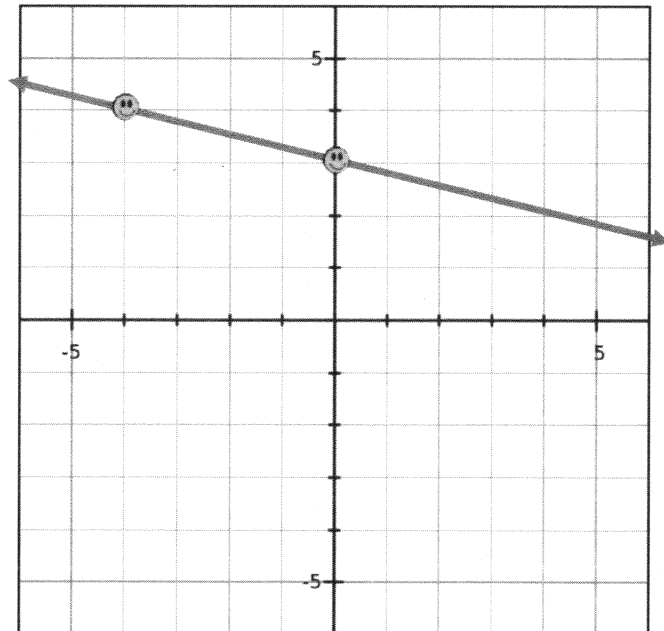
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2. (-4,4) (0,3)

$$m = -\frac{1}{4}$$

$$b = 3$$

Equation:



$$y = -\frac{1}{4}x + 3$$

* given two points find the slope, y-intercept and equation

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$$y = mx + b$$

$$y = 0x + 2$$

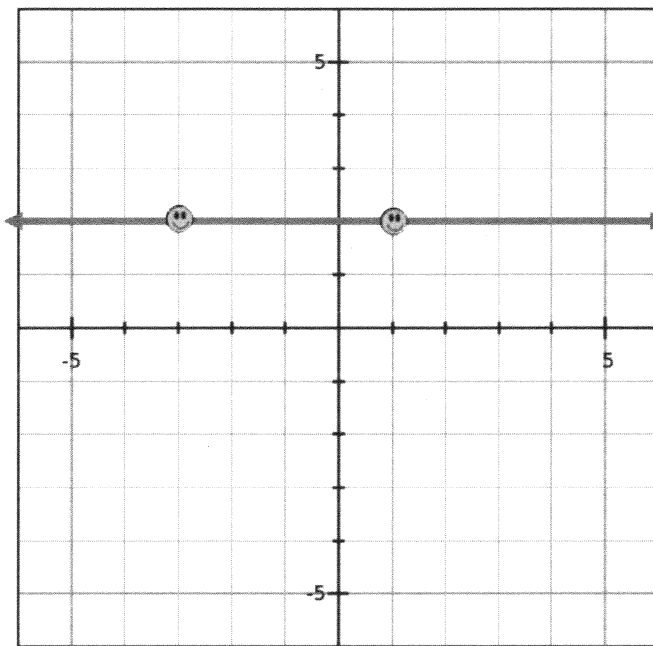
$$y = 2$$

3. (-3,2) (1,2)

$$m = 0$$

$$b = 2$$

Equation:



* given two points find the slope, y-intercept and equation

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Slope of horizontal line = 0

$$y = mx + b$$

$$y = 4x + -8$$

$$y = 0x + 5$$

$$y = -\frac{1}{2}x + 0$$

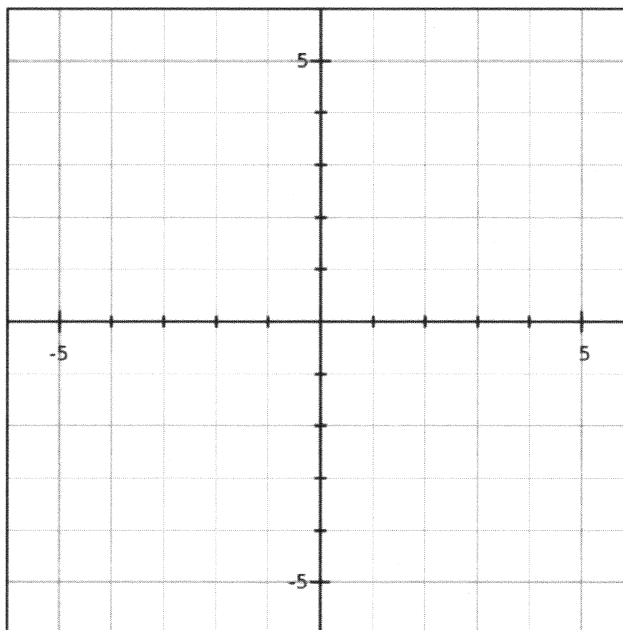
$$y = -\frac{1}{2}x$$

Write the equation in slope-intercept form:

1. slope = 4
y-intercept = -8

2. slope = 0
y-intercept = 5

3. slope = $-\frac{1}{2}$
y-intercept = 0



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Write an equation given two points: (-2,5) and (2,1)

Step One: find the slope

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - 5}{2 - -2} = \frac{-4}{4} = -1$$

Step Two: find the y-intercept

$$\begin{aligned} y &= mx + b \\ 1 &= (-1)2 + b \\ 1 &= -2 + b \end{aligned}$$

$$3 = b$$

Step Three: Substitute

$$\begin{aligned} y &= mx + b \\ y &= -1x + 3 \\ y &= -x + 3 \end{aligned}$$

Mar 5-7:29 AM

Write an equation given two points: (-2,-1) and (1,2)

Step One: find the slope

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - -1}{1 - -2} = \frac{2 + 1}{1 + 2} = \frac{3}{3} = 1$$

Step Two: find the y-intercept

$$\begin{aligned} y &= mx + b \\ 2 &= (1)1 + b \\ 2 &= 1 + b \end{aligned}$$

$$1 = b$$

Step Three: Substitute

$$\begin{aligned} y &= mx + b \\ y &= 1x + 1 \\ y &= x + 1 \end{aligned}$$

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