

Name: _____

Date: _____

4.1 Writing Equations in Slope-Intercept Form

Essential Question: _____

Indicate what the m and the b is in the following slope-intercept form:

$$y = mx + b$$

EXAMPLE 1 Using Slopes and y -Intercepts to Write Equations

Write an equation of each line with the given slope and y -intercept.

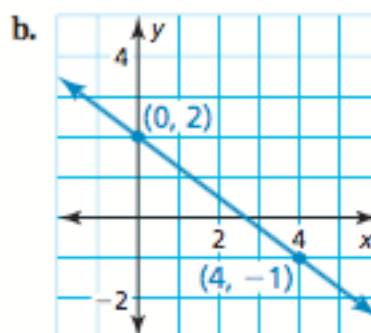
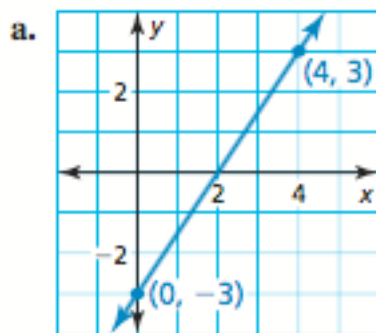
- a. slope = -3 ; y -intercept = $\frac{1}{2}$ b. slope = 0 ; y -intercept = -2

Write an equation of the line with the given slope and y -intercept.

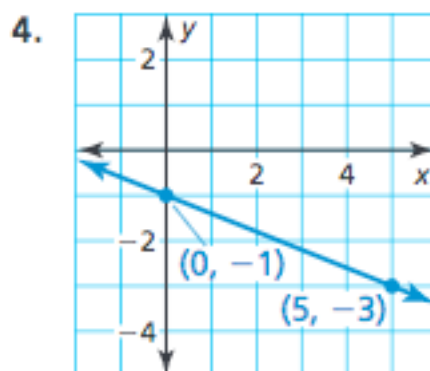
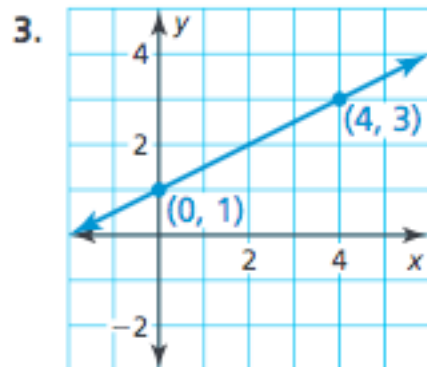
1. slope = 7 ; y -intercept = 2 2. slope = $\frac{1}{3}$; y -intercept = -1

EXAMPLE 2 Using Graphs to Write Equations

Write an equation of each line in slope-intercept form.



Write an equation of the line in slope-intercept form.



EXAMPLE 3 Using Points to Write Equations

Write an equation of each line that passes through the given points.

a. $(-3, 5), (0, -1)$

b. $(0, -5), (8, -5)$

EXAMPLE 4 Writing a Linear Function

> Write a linear function f with the values $f(0) = 10$ and $f(6) = 34$.