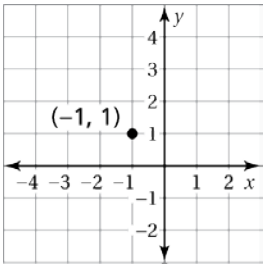
Name: _____ Period: _____

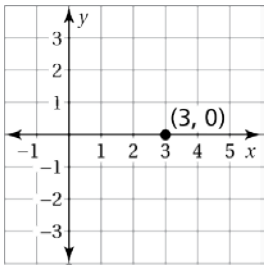
# 4.7 Writing Equations in Point-Slope Form and Slope-Intercept Form

Draw a line with the given slope through the given point. Afterwards, use the **point-slope** form to write an equation of the line with the given slope that passes through the given point.

1) $m = 3$




2) $m = -\frac{2}{3}$




Write in **point-slope** form an equation of the line that passes through the given point and has the given slope.

3) $(4, -2)$; $m = \frac{1}{4}$

4) $(-3, 5)$; $m = -\frac{4}{3}$

5) $(2, 2)$; $m = -1$

6) $(-1, -5)$; $m = 4$

Write in **slope-intercept** form an equation of the line that passes through the given points.

7) $(-3, -4), (6, -1)$

8) $(-4, 12), (2, -3)$

9) $(-1, -2), (1, -6)$

10) $(-2, -9), (1, 6)$

11) $(2, 3), (3, 7)$

12) $(-5, -8), (10, 4)$

13) You are pulling a kite back to the ground at a rate of 2 feet per second. After 4 seconds, the kite is 16 feet above the ground.

a. Write an equation that represents the height $y$ (in feet) above the ground after $x$ seconds.

b. At what height was the kite when you started pulling it in?

c. When does the kite touch the ground?