Chapter 2 and 12.5 Practice Test Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_

1) Find the slope of the line. m = \_\_\_\_\_\_\_\_ 2) A line passes through (1, 3) and (6, 4). Write an equation for the line in point-slope form.



3) a. Write a slope-intercept equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b. What does the slope and y-intercept mean in context of the situation? (Two complete sentences.)

4) Use the graph below to write the equations in the specified form.

 a) **Line A**: Write an equation in **point-slope form**.

 b) **Line B**: Write an equation in **slope-intercept form**.

**Identify the slope and y-intercept of each equation. Show your work!**

5) 6x + 5y = 10 m = \_\_\_\_\_ b= \_\_\_\_\_ 6) y – 4 = –3(x + 5) m = \_\_\_\_\_ b = \_\_\_\_\_

**Find the x- and y- intercepts of each line. Write each intercept as a coordinate point. Show your work!**

7)2x + 5y = 10 8) x = –5 + 3y

Graph each equation **from the form given!**  Do not transform.

9) $y=\frac{1}{4}x-3$ 10) $y-4=-\frac{3}{5}(x+2)$ 11) $4x-3y=12$

12) Graph the equation. $y=6$ 13) a) Explain the relationship between temperature and beach temps.

 Is there a correlation?

b) Write an equation for the trend line using the points (96, 610) and (84, 250) in slope-intercept form.

14) Four months at a gym costs $220. The rate is $40 per month.

a) Define your variables and write an equation in the appropriate form to model this situation.

b) How much would it cost to be a member at the gym for 3 months? Show work algebraically.

15) Sara started with $4,000 in her savings account. Each month she **adds** $200.

a) Define your variables and write an equation in the appropriate form to model this situation.

b) If Sara has $5400, in her savings account, how many months has she been adding money? Show work algebraically!

16) The store sells peanuts for $3 per pound and pecans for $5 per pound. You have $24 to spend on nuts.

a) Define your variables and write an equation in the appropriate form to model this situation.

b) **Graph your equation** **and label your axes.**

c) What does the x-intercept mean (specifically!) in the context of the situation?

17) What is the equation of a line in slope intercept form that is **perpendicular** to the line y = -3x + 2 and passes through the point (-6, 2)?