## 2-1 and 2-2 Additional Practice

Graph the line that represents each linear equation.

1. 
$$y = -5x + 1$$
  
2.  $y = \frac{2}{3}x - 5$ 

What slope-intercept form equation represents the line?

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

- 5. (-1, 3) and (-3, 1) 6. (-4, 8) and (4, 6)
- 7. a. Zachary purchased a computer for \$1,800 on a payment plan. Three months after he purchased the computer, his balance was \$1,350. Five months after he purchased the computer, his balance was \$1,050. What is an equation that models the balance *B* after *m* months?
  - b. What does the slope signify in Zachary's equation, and why?

Graph the line that represents each linear equation.

8. 
$$y-2=2(x+3)$$
  
9.  $y+1=-\frac{3}{5}(x+5)$ 

Write the equation in point-slope form of the line that passes through the given point with the given slope.

10. (-3, -5); m = -2 11.  $(4, -11); m = \frac{3}{4}$ 

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

- 12. (4, 0) and (-2, 1) 13. (-3, -2) and (5, 3)
- 14. Put the following in slope-intercept form:  $y+7 = -\frac{3}{4}(x-12)$
- 15. Members of the student council are conducting a fundraiser by selling school calendars. After selling 80 calendars, they had a loss of \$360. After selling 200 calendars, they had a profit of \$600. Write an equation that describes the relation between *y*, the profit or loss, and *x*, the number of calendars sold. How much profit did they make from selling each calendar? How much would they have lost if they had sold no calendars?

## Answers

- 1. Slope -5, y-intercept (0,1) see graph in class
- 2. Slope  $\frac{2}{3}$ , y-intercept (0, -5) see graph in class 3. y = 2x+1

4.  $y = -\frac{1}{2}x + 4$ 5. y = x + 4

5. 
$$y = x + 4$$
  
6.  $y = -\frac{1}{2}x + 7$ 

7. a. 
$$B = -150m + 1800$$

b. monthly payment amount decreases by \$150 each month

- 8. slope 2, point (- 3, 2) see graph in class
- 9. slope  $\frac{3}{5}$ , point (-5, -1) see graph in class 10. y+5 = -2(x+3)11.  $y+11 = \frac{3}{4}(x-4)$ 12.  $y-1 = -\frac{1}{6}(x+2)$ 13.  $y-3 = \frac{5}{8}(x-5)$ 14.  $y = -\frac{3}{4}x+2$

15. y = 8x - 1000, slope 8 is profit, y-intercept is (0, -1000) and is loss if no calendars sold