## 2-1 and 2-2 Additional Practice

Graph the line that represents each linear equation.

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

What slope-intercept form equation represents the line?
3.

4.


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. $y=2 x+1$
4. $y=-\frac{1}{2} x+4$
5. $y=x+4$
6. $y=-\frac{1}{4} x+7$
7. a. $B=-150 m+1800$
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. $y=8 x-1000$, slope 8 is profit, $y$-intercept is $(0,-1000)$ and is loss if no calendars sold
