

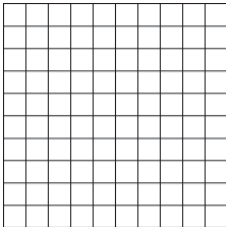


## 2-1 Additional Practice

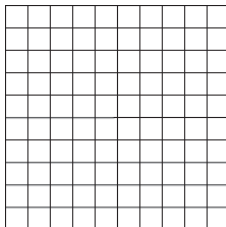
### Slope-Intercept Form

Graph the line that represents each linear equation.

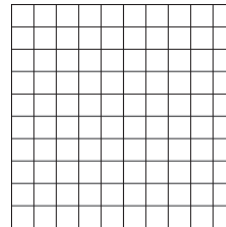
1.  $y = x + 3$



2.  $y = -5x + 1$

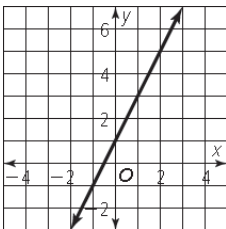


3.  $y = \frac{2}{3}x - 5$

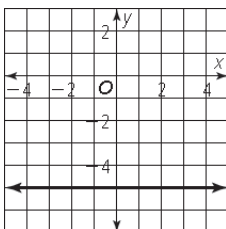


What slope-intercept form equation represents the line?

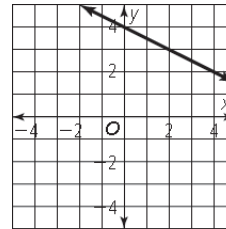
4.



5.



6.



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

7.  $(-1, 3)$  and  $(-3, 1)$

8.  $(-4, 8)$  and  $(4, 6)$

9.  $(9, 2)$  and  $(-3, -2)$

10. 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?

11. What does the slope signify in Zachary's equation, and why?

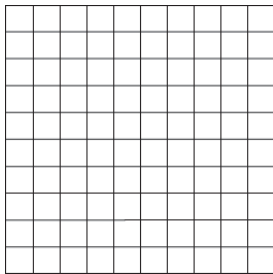


## 2-2 Additional Practice

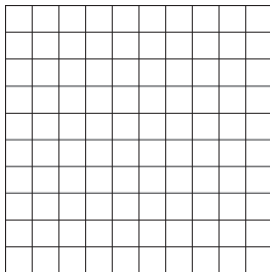
### Point-Slope Form

Graph the line that represents each linear equation.

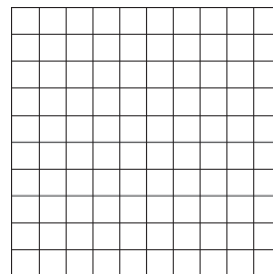
1.  $y - 2 = 2(x + 3)$



2.  $y + 3 = -2(x + 1)$



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



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

4.  $(2, 1); m = 3$

5.  $(-3, -5); m = -2$

6.  $(4, -11); m = \frac{3}{4}$

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

7.  $(4, 0)$  and  $(-2, 1)$

8.  $(-3, -2)$  and  $(5, 3)$

9.  $(-5, 1)$  and  $(3, 4)$

10. 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?

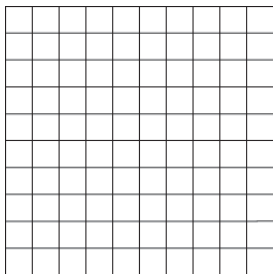


## 2-3 Additional Practice

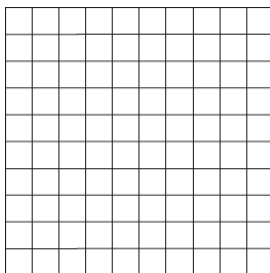
### Standard Form

Graph the line that represents each linear equation.

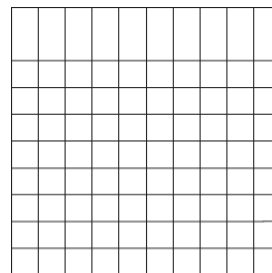
1.  $-5x + y = -10$



2.  $-3x - 6y = 12$

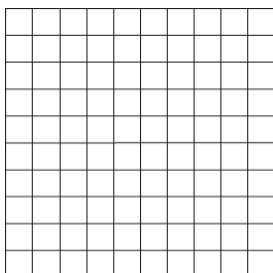


3.  $4x - 12y = -24$

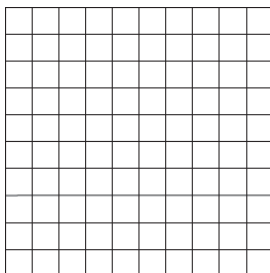


Graph the line that represents each linear equation.

4.  $5x = 15$



5.  $-4y = -20$



What points represent the  $x$ - and  $y$ -intercepts of each equation?

6.  $4x - 5y = 80$

7.  $7x + 8y = 112$

8.  $-8x + 12y = -144$

9. A high school football team scores a total of 42 points by scoring touchdowns and field goals. Suppose each field goal is worth 3 points and each touchdown is worth 7 points.

- Let  $x$  represent the number of field goals and  $y$  represent the number of touchdowns. Write an equation that models the total points scored in the game.
- Identify and interpret the  $x$ - and  $y$ -intercepts.



## 2-4 Additional Practice

### Parallel and Perpendicular Lines

Write an equation for the line that passes through the given point and is parallel to the graph of the given equation.

1.  $y = 3x - 2$ ;  $(3, 2)$

2.  $y = \frac{2}{3}x + 19$ ;  $(-9, 4)$

3.  $3x + 4y = 12$ ;  $(-4, 7)$

Write an equation for the line that passes through the given point and is perpendicular to the graph of the given equation.

4.  $y = -2x - 1$ ;  $(2, -1)$

5.  $y + 4 = \frac{2}{3}(x - 2)$ ;  
 $(4, -2)$

6.  $-6y = -2$ ;  $(-5, 6)$

Determine whether the graphs of the given equations are parallel, perpendicular, or intersecting.

7.  $y = 4x + 5$   
 $2x + 8y = 16$

8.  $y = 3x + 5$   
 $-3x - y = 9$

9.  $y - 7x = 3$   
 $14x - 2y = 28$