

**LESSON**  
**3.5**
**Practice A**
*For use with pages 186–193*
**Write an equation of the line with the given slope  $m$  and  $y$ -intercept  $b$ .**

1.  $m = 2; b = 3$

2.  $m = 1; b = 1$

3.  $m = 4; b = 2$

4.  $m = 3; b = -2$

5.  $m = -6; b = 4$

6.  $m = \frac{1}{2}; b = -5$

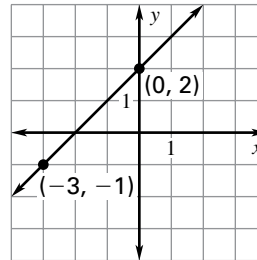
**7. Multiple Choice** Which equation is an equation of the line in the graph?

A.  $y = 2x + 2$

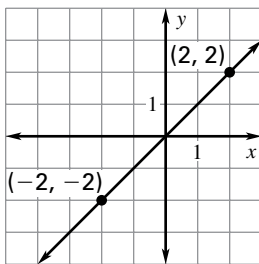
B.  $y = x + 2$

C.  $y = -2x + 2$

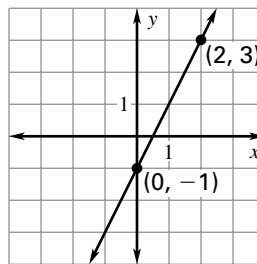
D.  $y = -x + 2$


**Write an equation of the line shown.**

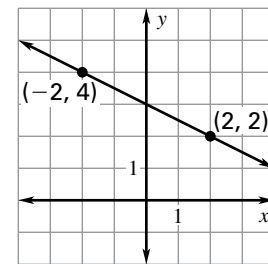
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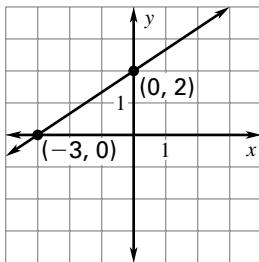
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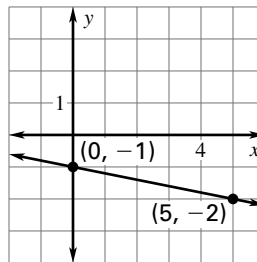
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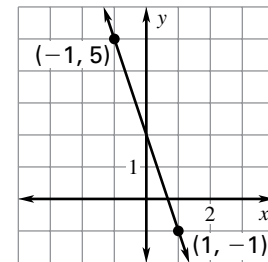
11.



12.



13.


**Write an equation of the line that passes through the given point  $P$  and has the given slope  $m$ .**

14.  $P(0, 2); m = 3$

15.  $P(3, 0); m = 2$

16.  $P(2, 4); m = \frac{1}{2}$

**Write an equation of the line that passes through point  $P$  and is parallel to the line with the given equation.**

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

18.  $P(2, 5); y = 4x + 1$

19.  $P(0, 1); y = -x + 3$

**Write an equation of the line that passes through point  $P$  and is perpendicular to the line with the given equation.**

20.  $P(4, 2); y = \frac{1}{2}x + 4$

21.  $P(3, -2); y = -\frac{1}{3}x - 3$

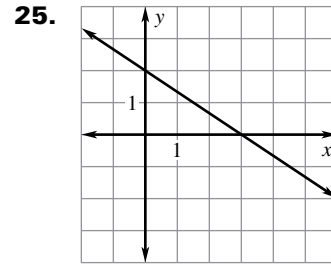
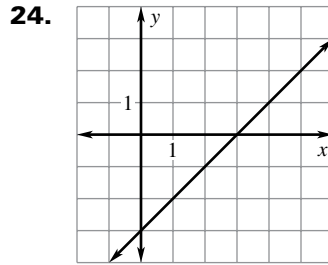
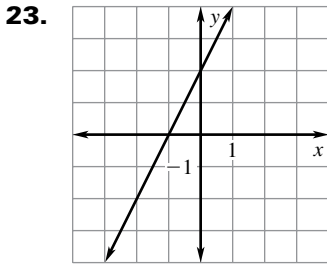
22.  $P(-2, 6); y = 2$

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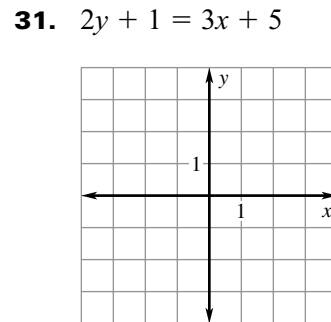
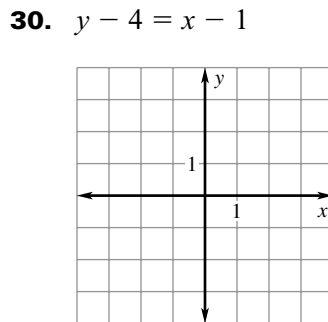
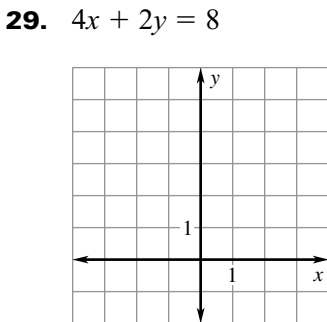
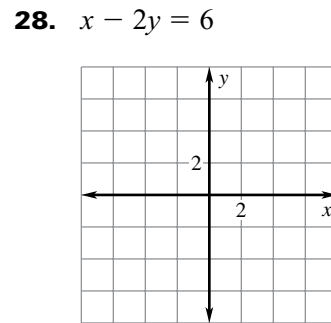
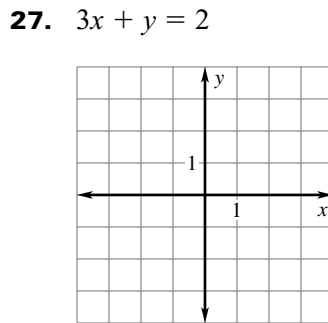
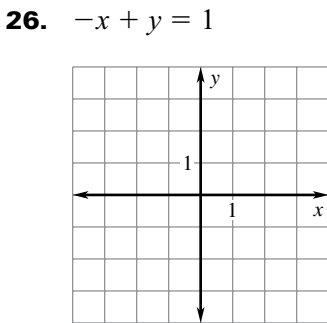
**Practice A** *continued*

For use with pages 186–193

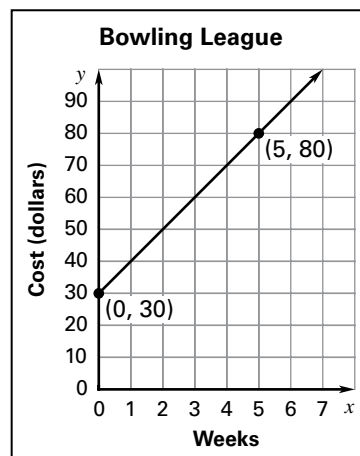
**Identify the  $x$ - and  $y$ -intercepts of the line. Use the intercepts to write an equation of the line.**



**Graph the equation.**



32. **Bowling League** The graph models the total cost of participating in a bowling league. Write an equation of the line. *Explain* the meaning of the slope and the  $y$ -intercept of the line.



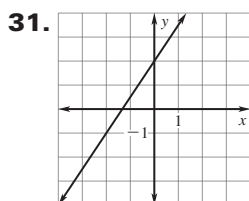
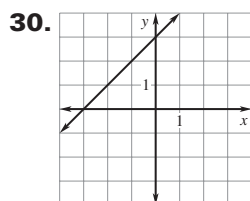
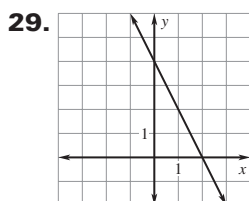
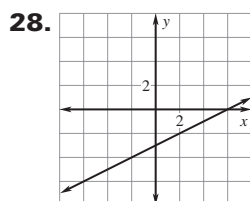
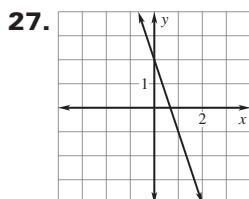
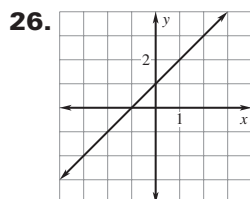
### Lesson 3.4, continued

- c. The car is traveling at an average speed of  $\frac{1}{3}$  mi/min. d. The car is stopped.  
 e. The car is traveling at an average speed of  $\frac{1}{2}$  mi/min. f. The car is stopped.  
 g. The car is traveling at 1 mi/min.

### Lesson 3.5

#### Practice Level A

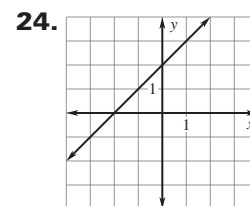
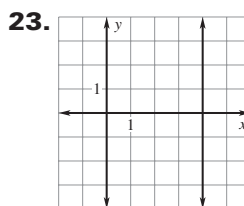
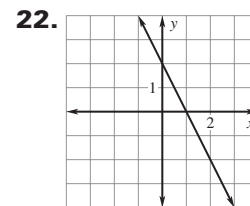
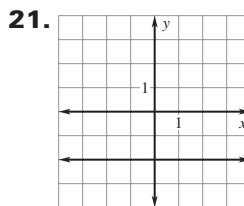
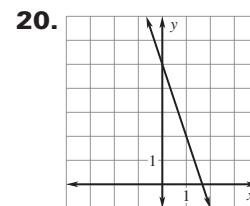
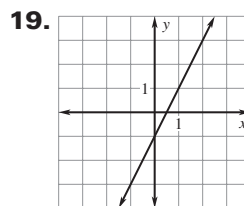
1.  $y = 2x + 3$  2.  $y = x + 1$  3.  $y = 4x + 2$   
 4.  $y = 3x - 2$  5.  $y = -6x + 4$  6.  $y = \frac{1}{2}x - 5$   
 7. B 8.  $y = x$  9.  $y = 2x - 1$  10.  $y = -\frac{1}{2}x + 3$   
 11.  $y = \frac{2}{3}x + 2$  12.  $y = -\frac{1}{5}x - 1$   
 13.  $y = -3x + 2$  14.  $y = 3x + 2$   
 15.  $y = 2x - 6$  16.  $y = \frac{1}{2}x + 3$  17.  $y = 2x + 1$   
 18.  $y = 4x - 3$  19.  $y = -x + 1$   
 20.  $y = -2x + 10$  21.  $y = 3x - 11$  22.  $x = -2$   
 23.  $x$ -intercept =  $-1$ ;  $y$ -intercept =  $2$ ;  $y = 2x + 2$   
 24.  $x$ -intercept =  $3$ ;  $y$ -intercept =  $-3$ ;  $y = x - 3$   
 25.  $x$ -intercept =  $3$ ;  $y$ -intercept =  $2$ ;  $y = -\frac{2}{3}x + 2$



32.  $y = 10x + 30$ ; The slope is the weekly fee, \$10, and the  $y$ -intercept is the initial cost to join the league, \$30.

#### Practice Level B

1.  $y = \frac{2}{3}x + 1$  2.  $y = -x + 2$   
 3.  $y = -\frac{3}{4}x + \frac{3}{2}$  4.  $y = \frac{2}{3}x - \frac{1}{3}$   
 5.  $y = -2x - 3$  6.  $y = \frac{1}{3}x + \frac{4}{3}$   
 7.  $y = -\frac{1}{2}x - 1$  8.  $y = 4x - 3$   
 9.  $y = -2x - 14$  10.  $y = -2x + 30$   
 11.  $y = 3x - 7$  12.  $x = 3$  13.  $y = x - 1$   
 14.  $y = -3x + 11$  15.  $y = -1$   
 16.  $y = 2x - 3$  17.  $y = 4x + 4$  18.  $y = 3$



25.  $y = 500x + 5000$ ; The slope is the monthly fee, \$500, and the  $y$ -intercept is the initial cost to join the club, \$5000.

#### Practice Level C

1.  $y = \frac{3}{4}x - 4$  2.  $y = -\frac{3}{2}x + \frac{5}{7}$   
 3.  $y = \frac{10}{3}x - \frac{2}{5}$  4.  $y = -\frac{3}{5}x + 3$  5.  $y = 2x - 1$   
 6.  $y = -\frac{4}{3}x + \frac{19}{3}$  7.  $y = \frac{3}{7}x - \frac{16}{7}$   
 8.  $y = -\frac{7}{4}x + \frac{19}{2}$  9.  $y = 8x - 52$   
 10.  $y = 4x - 8$  11.  $y = -3x + 13$   
 12.  $y = \frac{1}{3}x + 3$  13.  $y = -4x + \frac{25}{2}$   
 14.  $y = -\frac{5}{3}x + \frac{34}{3}$  15.  $y = \frac{1}{2}x$  16.  $y = 4x - 15$