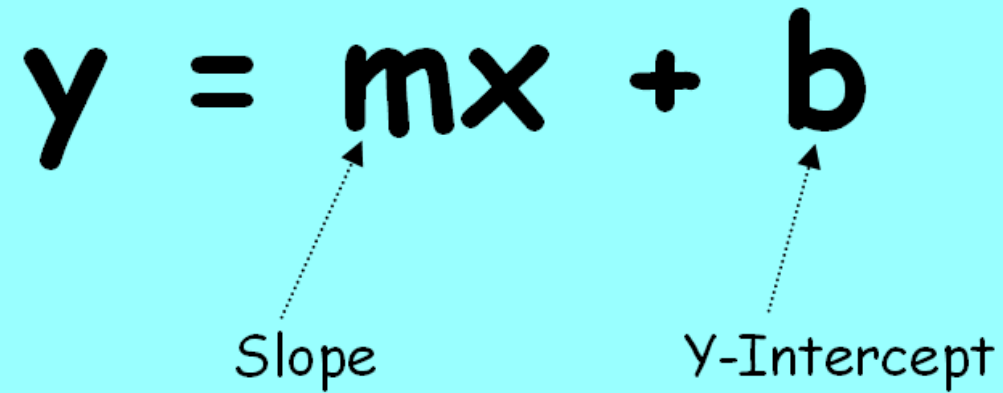


3.5 Learning Goal: Students will be able to write equations of lines in Slope Intercept Form, and Graph Linear Equations.

$$y = mx + b$$

Slope

Y-Intercept



$$y = mx + b$$

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. $m = 3; b = -2$

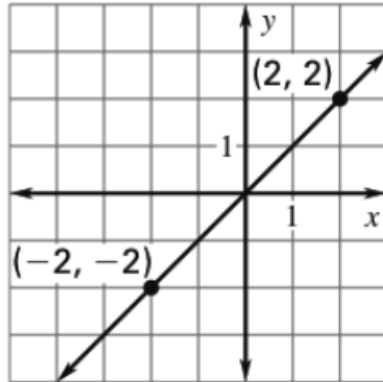
5. $m = -6; b = 4$

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

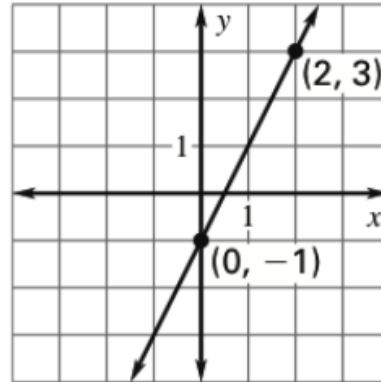
$$y = mx + b$$

Write an equation of the line shown.

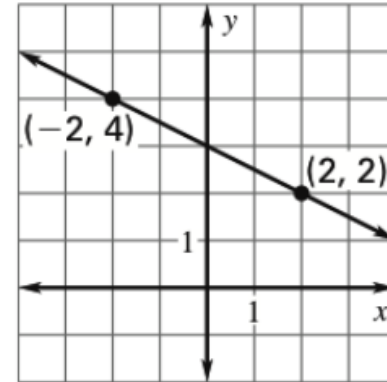
8.



9.



10.



$$y = mx + b$$

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

$$y = mx + b$$

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

$$y = mx + b$$

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

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

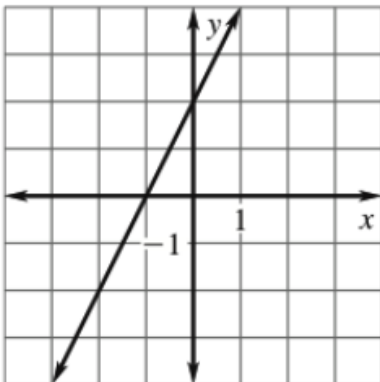
21. $P(3, -2); y = -\frac{1}{3}x - 3$

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

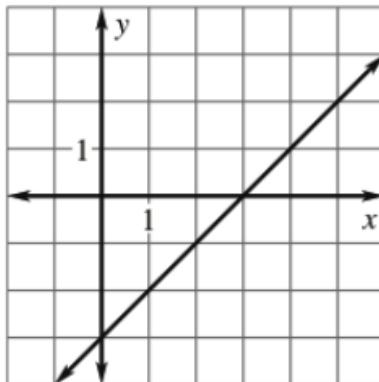
$$y = mx + b$$

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

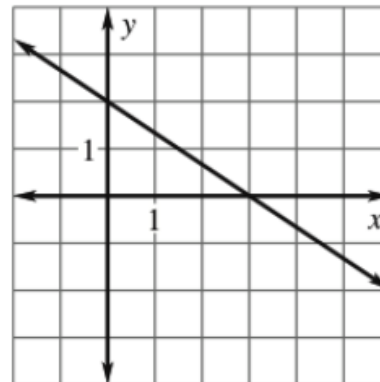
23.



24.

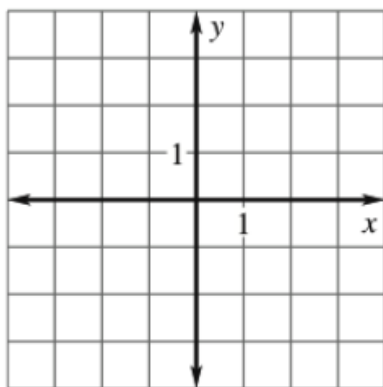


25.

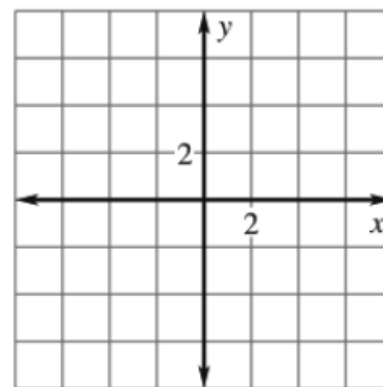


Graph the equation.

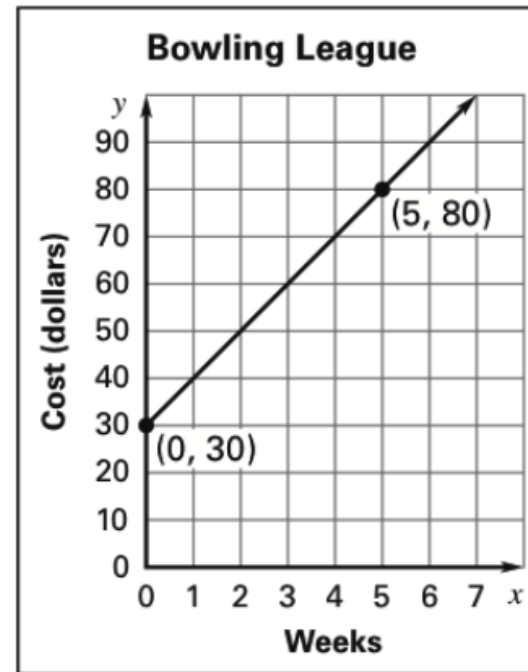
26. $-x + y = 1$



28. $x - 2y = 6$



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.



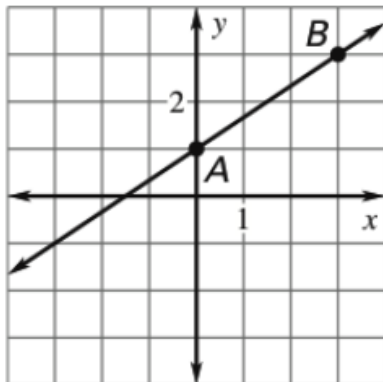
Day 1 Assignment:

3.5 ws

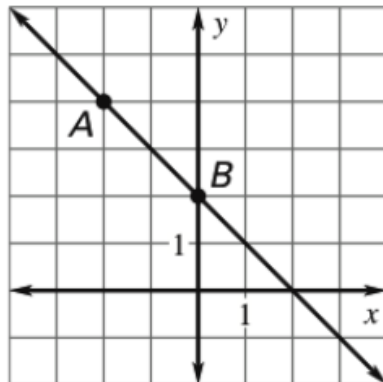
LESSON
3.5
Practice B
For use with pages 180–187

Write an equation of line AB in slope-intercept form.

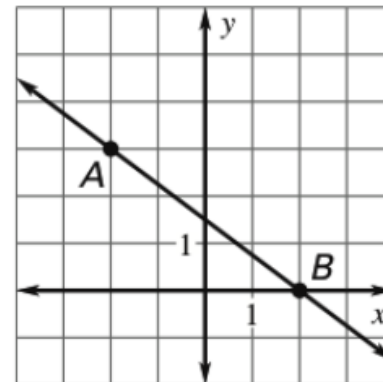
1.



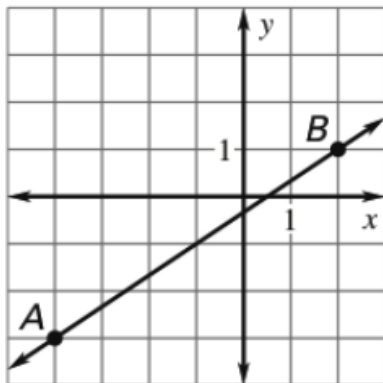
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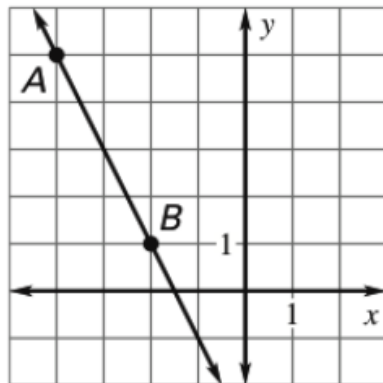
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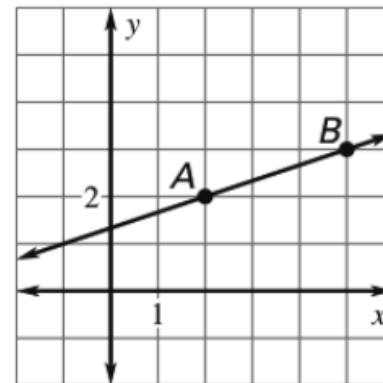
4.



5.



6.



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

7. $P(-2, 0); y = -\frac{1}{2}x + 6$

8. $P(3, 9); y = 4x - 8$

9. $P(-5, -4); y = -2x - 10$

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

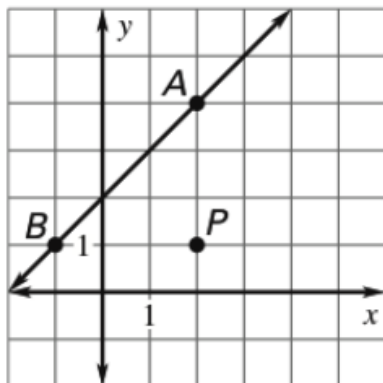
10. $P(5, 20); y = \frac{1}{2}x + 8$

11. $P(4, 5); y = -\frac{1}{3}x - 6$

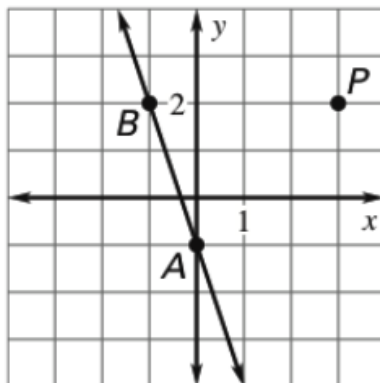
12. $P(3, 5); y = 4$

Write an equation of the line that passes through point P and is parallel to line AB .

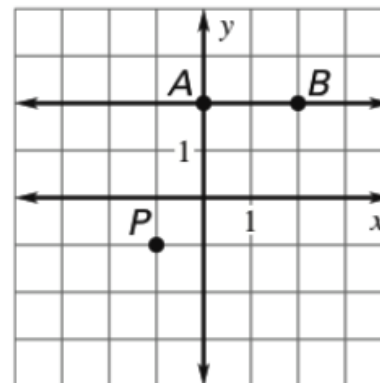
13.



14.



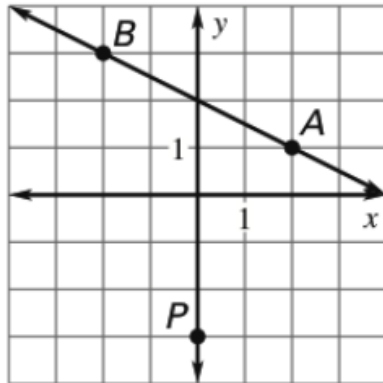
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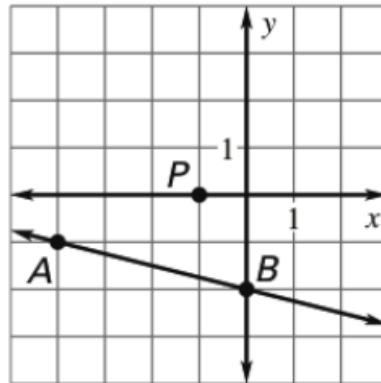
LESSON
3.5
Practice B *continued*
 For use with pages 180–187

Write an equation of the line that passes through point P and is perpendicular to line AB .

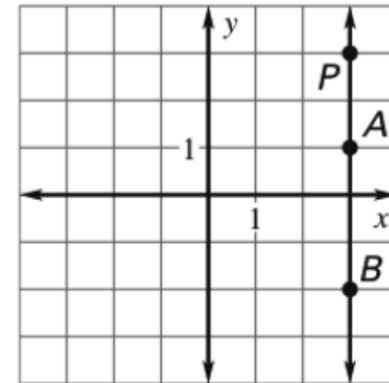
16.



17.

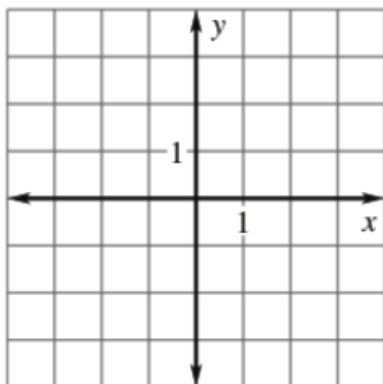


18.

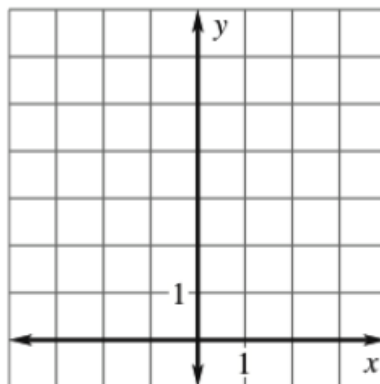


Graph the equation.

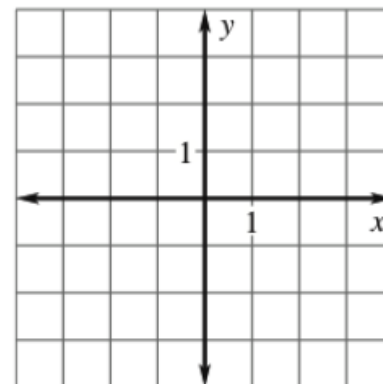
19. $-2x + y = -1$



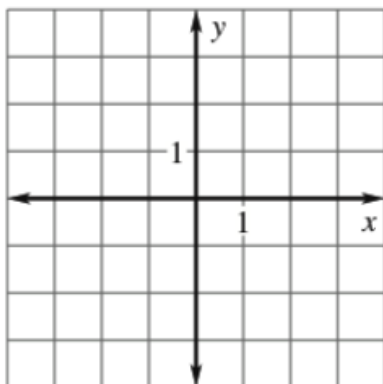
20. $y - 3 = -3x + 2$



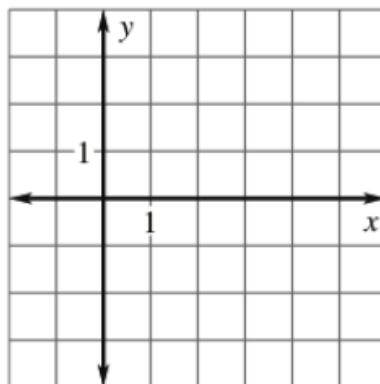
21. $y + 6 = 3$



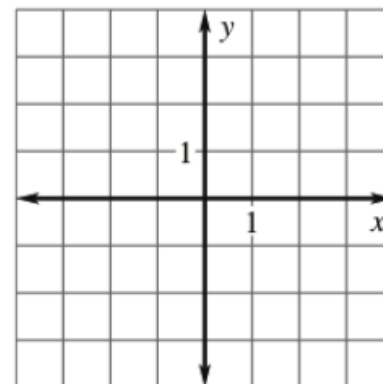
22. $2(x - 1) = -y$



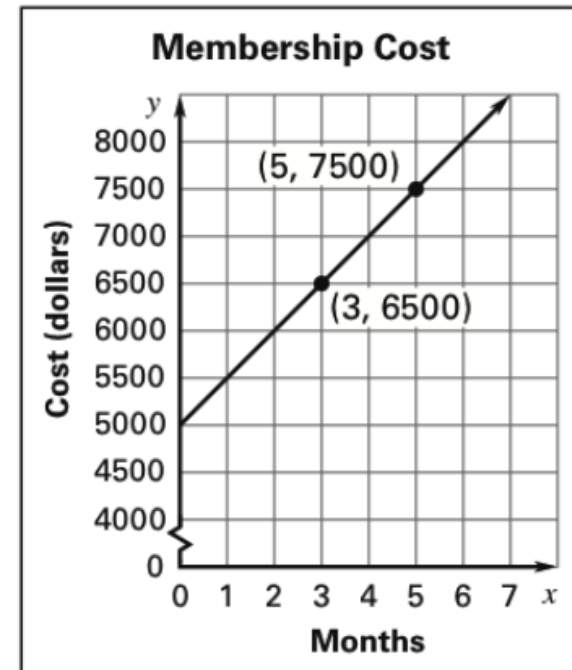
23. $x - 4 = 0$



24. $2y - 4 = 2x$



- 25. Country Club** The graph models the total cost of joining a country club. Write an equation of the line. *Explain* the meaning of the slope and the *y*-intercept of the line.



Answer Key

Lesson 3.5

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. $y = \frac{1}{3}x + \frac{4}{3}$

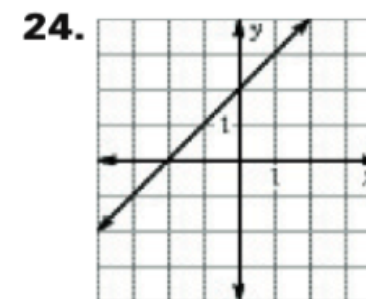
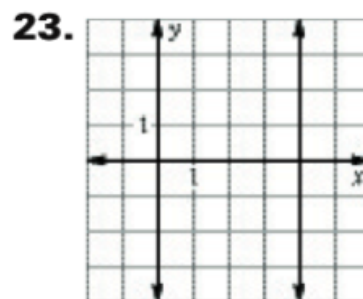
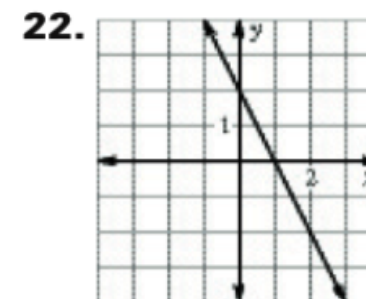
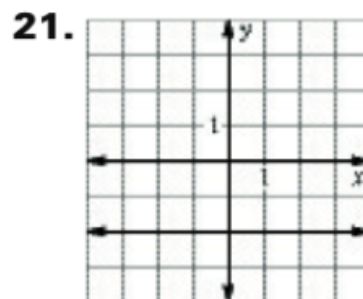
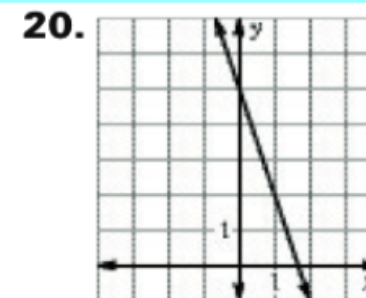
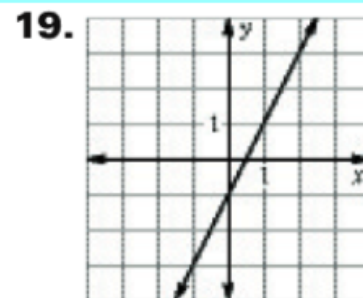
7. $y = -\frac{1}{2}x - 1$ 8. $y = 4x - 3$

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 club, \$5000.

Assignment Day 2:

p. 184 (3-51 mult. of 3, 69-75 all)