

**LESSON**  
**5.5****Practice B***For use with pages 318–324*

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

1.  $(4, 7), y = 5x - 3$

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

3.  $(-6, 1), 4x + y = 7$

4.  $(-5, -5), 6x - y = 1$

5.  $(0, -8), 8x + 4y = 5$

6.  $(-9, 11), 5x - 10y = 3$

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

7.  $(1, -1), y = 3x + 2$

8.  $(5, 0), y = \frac{2}{3}x - 4$

9.  $(3, -7), y = -\frac{1}{5}x + 1$

10.  $(-9, 2), 10x - 5y = 6$

11.  $(10, -11), -2x + 5y = 1$

12.  $(-4, -8), 8x + 3y = 7$

**Determine which of the following lines, if any, are parallel or perpendicular.**

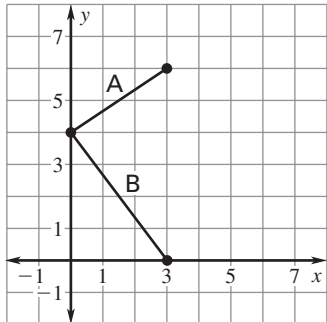
13. Line  $a: y = 8x - 5$ , Line  $b: y = \frac{1}{8}x + 1$ , Line  $c: 8x + y = 2$

14. Line  $a: y = -2x + 5$ , Line  $b: 2y - x = 3$ , Line  $c: 2x + y = 1$

15. Line  $a: 6x + 2y = 5$ , Line  $b: y = \frac{1}{3}x - 4$ , Line  $c: y = -3x + 5$

**LESSON**  
**5.5**
**Practice B** *continued*  
*For use with pages 318–324*

- 16. Kite Design** You are beginning to model a kite design on the coordinate plane, as shown.



- Write an equation that models part A of the kite.
  - Write an equation that models part B of the kite.
  - Do the kite parts form a right angle? *Justify* your answer.
- 17. Lunch Duty** Everyone at camp takes turns being on lunch duty. You and your friend are in charge of making sandwiches. You both can make 1 sandwich in 2 minutes. Your friend arrives 10 minutes earlier than you and starts making sandwiches.
- Write equations that model the number of sandwiches made as a function of the number of minutes it takes you and your friend to each make sandwiches.
  - How many sandwiches will each of you make in 20 minutes?
  - How are the graphs of the equations from part (a) related? *Justify* your answer.