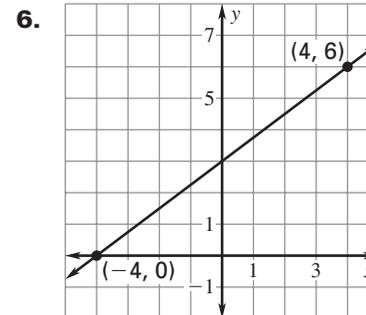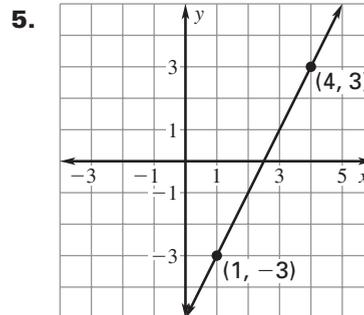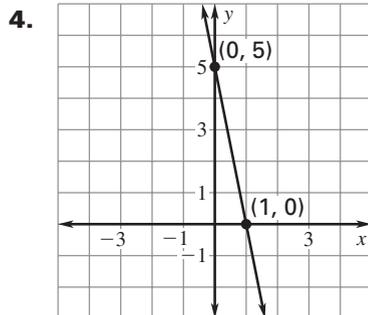**LESSON 5.1** **Practice B**
For use with pages 282–291

Write an equation of the line with the given slope and *y*-intercept.

1. slope: 7; *y*-intercept: 4   **2.** slope: -3; *y*-intercept: 5   **3.** slope: 1; *y*-intercept: -6

Write an equation of the line shown.

4.

5.

6.

Write an equation of the line that passes through the given points.

7. $(-1, 0), (0, -2)$ **8.** $(0, 4), (6, 13)$ **9.** $(4, 5), (8, 2)$

10. $(-1, -9), (6, 5)$ **11.** $(2, -13), (-3, 12)$ **12.** $(-4, -21), (1, -1)$

Write an equation for the linear function *f* with the given values.

13. $f(0) = -1, f(3) = -10$ **14.** $f(-4) = 5, f(2) = 2$ **15.** $f(-4) = -2, f(2) = 7$

16. Landscape Supply A landscape supply business charges $30 to deliver mulch. The mulch costs $23 per cubic yard.

 a. Write an equation that gives the total cost (in dollars) of having mulch delivered to a site as a function of the number of cubic yards ordered.

 b. *Identify* the dependent and independent variables in this situation.

 c. Find the cost of having 8 cubic yards of mulch delivered to a site.

17. Cable Television A cable company charges $44 per month for basic service. Each premium channel costs an additional $16 per month.

 a. Write an equation that gives the total cost (in dollars) of cable each month as a function of the number of premium channels.

 b. *Identify* the dependent and independent variables in this situation.

 c. *Explain* how you can use the equation from part (a) to approximate how many premium channels you can have for $80 a month.

18. Laser Printer A laser printer has a "sleep" mode that is an energy-saving feature. When a job is sent to the printer, it takes 45 seconds for the printer to warm up and then the printer prints pages at a rate of 6 pages per minute.

 a. Write the time it takes the printer to warm up in minutes.

 b. Write an equation that gives the total amount of time (in minutes) it takes the printer to warm up and print a job as a function of the number of pages in the job.

 c. Find out how long it takes the printer to print a 50-page job if it must first warm up.

LESSON 5.1