Name

6-5B Lesson Master

Questions on SPUR Objectives
See pages 392–395 for objectives.

SKILLS Objective B

In 1–6, write an equation of the line given the slope and one point on the line.

1. slope $\frac{1}{4}$, point (8, –3)

2. slope –2, point (–1, 4)

3. slope $-\frac{2}{3}$, point (–6, –5)

4. slope 5, point $(\frac{2}{5}, 12)$

5. slope 0, point (–6, 15)

6. slope $\frac{1}{2}$, point (2.4, –3.2)

7. The slope of a line is 5 and the x-intercept is –2. Write an equation of the line.

8. The slope of a line is $-\frac{1}{3}$ and the x-intercept is 4. Write an equation of the line.

9. What is the equation of a horizontal line through the point $\left(-2, \frac{3}{4}\right)$?

10. Determine an equation for the line that contains (0, 2) and is parallel to the line with equation $y = \frac{3}{5}x$.

In 11 and 12, the slopes of two lines are reciprocals.

11. An equation of one line is $y = \frac{7}{8}x + 1$. What is the slope of the second line?

12. Find the equation of the second line if it passes through the point (14, –10).

Name

USES Objective F

13. A suburban school district had an enrollment of 7,200 students in the year 2000. Enrollment has been growing at a fairly constant rate of 50 students per year.

    a. Write an ordered pair described by the information. _____

    b. Write the slope described by the information. _____

    c. Write an equation relating the number of students in the school district y and the number of years since 2000 x. _____

    d. Estimate the total enrollment the school district might expect for the year 2010, if this rate of growth remains steady. _____

14. Six hundred fifty people attended a dance recital. When it was over, the theater emptied at a rate of 125 people every 5 minutes.

    a. Write an ordered pair described by the information. _____

    b. Write the slope described by the information. _____

    c. Write an equation to represent the number of people p in the theater after m minutes. _____

    d. How long will it take to empty the theater? _____

In 15 and 16, use the table below. It represents the admission and parking costs at a zoo when Cherise went with her family and some friends. Everyone rode in one car and only 2 adults went to the zoo.

Parking	$6.75
Adult admission	$7.00
Child admission	$3.50

15. Let c represent the number of children who went to the zoo and let t represent the total cost of admission to the zoo. Write an equation relating t and c. _____

16. If the total costs for parking and admission were $38.25, how many children went to the zoo on this trip? _____