Name _____ Class _____ Date _____

Practice

Form G

Writing a Function Rule

Write a function rule that represents each sentence.

1. 5 less than one fourth of x is y.

2. 7 more than the quotient of a number n and 4 is 9.

3. P is 9 more than half of q.

4. 8 more than 5 times a number is –27.

5. 1.5 more than the quotient of a and 4 is b.

For Exercises 6–10, write a function rule that represents each situation.

6. The price p of an ice cream is \$3.95 plus \$0.85 for each topping t on the ice cream.

7. A babysitter's earnings e are a function of the number of hours n worked at a rate of \$7.25 per hour.

8. The price p of a club's membership is \$30 for an enrollment fee and \$12 per week w to be a member.

9. A plumber's fees f are \$75 for a house call and \$60 per hour h for each hour worked.

10. A hot dog d costs \$1 more than one-half the cost of a hamburger h.

11. José is 3 years younger than 3 times his brother's age. Write a rule that represents José's age j as a function of his brother's age b. How old is José if his brother is 5?

12. A taxicab charges \$4.25 for the first mile and \$1.50 for each additional mile. Write a rule for describing the total rate r as a function of the total miles m. What is the taxi rate for 12 miles?

Practice (continued)

Form G

Writing a Function Rule

13. Write a function rule for the area of a rectangle whose length is 4 in. more than its width. What is the area of the rectangle when its width is 8 in.?

14. Write a function rule for the area of a rectangle with a length 3 ft more than two times its width. What is the area of the rectangle when its width is 4 ft?

15. Write a function rule for the area of a triangle with a base 2 m less than 4 times its height. What is the area of the triangle when its height is 8 m?

16. Reasoning Write a rule that is an example of a nonlinear function that fits the following description.

When b is 49, a is 7, and a is a function of b.

17. Open-Ended Describe a real-world situation that represents a nonlinear function.

18. Writing Explain whether or not the relationship between inches and feet represents a function.

19. Multiple Representations Use the table shown at the right.

a. Graph the ordered pairs on a coordinate plane.

b. Write an equation that can be used to find y for any x value.

c. Is the equation a function? Explain.

x	y
1	6
2	8
3	10
4	12