4-5 **Practice**   *Form K*

Writing a Function Rule

Write a function rule that represents each sentence.

1. 8 less than one third of x is y.

2. 12 more than the quotient of a number t and 7 is v.

3. z is 6 more than twice y.

4. 10 more than 8 times a number a is b.

For Exercises 5–7, write a function rule that represents each situation.

5. The price p of a large, cheese pizza is $7.95 plus $0.75 for each topping t on the pizza.

6. Jaquelyn's earnings m are a function of the number of lawns n she mows at a rate of $12 per lawn.

7. The total fees f of a book club membership are $10 per month m and a one-time administrative fee of $4.75.

8. Eric is 2 years younger than 2 times his sister's age. Write a rule that represents Eric's age a as a function of his sister's age s. How old is Eric if his sister is 11?

9. An online music club charges $5.75 for the first music download and $2 for each additional download per month. Write a rule for describing the total monthly fees *f* as a function of additional downloads *d*. What are the fees for 15 music downloads in a month?

10. Write a function rule for the area of a rectangle whose length is 6 ft more than its width. What is the area of the rectangle when its width is 12 ft?

11. Write a function rule for the area of a rectangle with a length 7 m more than three times its width. What is the area of the rectangle when its width is 3 m?

12. Write a function rule for the area of a triangle with a base 10 cm less than 8 times its height. What is the area of the triangle when its height is 5 cm?

13. Reasoning Is the graph of a function that relates a square's side length to its perimeter *continuous* or *discrete*? Explain.

14. Open-Ended Describe a real-world situation that can be represented by a linear function. Describe a change that could occur in this situation that would change it to a nonlinear function.