NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE \_\_\_\_\_\_\_\_\_ PERIOD\_\_\_\_\_\_\_

**Family Letter**



**Vocabulary**

**arithmetic sequence** A sequence in which the difference between any two consecutive terms is the same.

**dependent variable** The variable in a relation with a value that depends on the value of the independent variable.

**function** A relationship that assigns exactly one output value to one input value.

**function rule** An expression that describes the relationship between each input and output.

**function table** A table organizing the input, rule, and output of a function.

**geometric sequence** A sequence in which each term is found by multiplying the previous term by the same number.

**independent variable** The variable in a function with a value that is subject to choice.

**inequality** A mathematical sentence indicating that two quantities are not equal.

**linear function** A function that forms a line when graphed.

**sequence** A list of numbers in a specific order, such as 0, 1, 2, 3, or 2, 4, 6, 8.

**term** Each number in a sequence.

**Dear Parent or Guardian:**

Today we began Chapter 8 Functions and Inequalities. In this chapter, your student will learn how to use function tables to help identify functions and function rules. Your student will learn how to solve inequalities as well. Included in this letter are key vocabulary words and activities you can do with your student. If you have any questions or comments, feel free to contact me at school.

Sincerely,

**Course 1 · Chapter 8** Functions and Inequalities

**•**

Find at least three values for the function, and explain why you know they are correct.

**•**

20*h*

Write an algebraic expression to describe the function.

**•**

Think of a real-world situation that has a constant relationship, such as the cost of any number of an item.

**•**

**Real-World Activity**

**•**

*x* **=** 4

*x* **=** 3

**•**

**•**

*x* **=** 2

*x* **=** 1

*y* **=** 3*x*

Use counters to model the terms for the function rule *y* = 3*x*.

Divide a piece of paper into four sections. Label each section with one of the following inputs: *x* = 1, *x* = 2, *x* = 3, and *x* = 4.

Put the appropriate number of counters in each section to find the output *y* for each value of *x*.

Repeat this activity with other functions.

**•**

**Materials:** counters, paper, pencil

**Hands-On Activity**

































Create a poster to show how you found the function rule and how you determined whether your answers were reasonable.

**Course 1** • **Chapter 8** Functions and Inequalities

NAME

**At-Home Activities**

PERIOD

DATE