

Chapter 6 Functions

Dear Family,

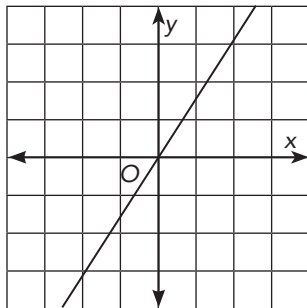
In this chapter, your student will learn about functions. Some of the skills your student will practice are:

- understanding the definition of a relation
- identifying functions, including linear and nonlinear functions
- representing a function in different forms
- comparing two linear functions

Activity

Working with linear functions is an important skill that students will use in many future math classes. You can help your student practice this skill with this activity.

- On a piece of graph paper, draw a line that goes through the origin and is increasing (rises from left to right).



Ask your student to write an equation in the form $y = mx + b$ for the line.

- Ask your student to write an equation for a different line that goes through the origin and is increasing. Graph the new line and compare the two graphs, then compare the two equations.
- Repeat the activity using a line that is increasing and does not contain the origin.

Vocabulary to Practice

A **relation** pairs a set of **inputs** with a set of **outputs**. A **mapping diagram** is one way to display how the inputs and outputs are paired.

In a **one-to-one** relation, each input is paired with only one output.

A **function** is a relation that assigns exactly one output to each input.

The ratio of the changes of two quantities is called the **rate of change**.

A **linear function** has a constant rate of change, and can be represented by an equation in the form $y = mx + b$.



Online Resources

For additional Parent Resources my.hrw.com