

Chapter 1 The Real Number System

Dear Family,

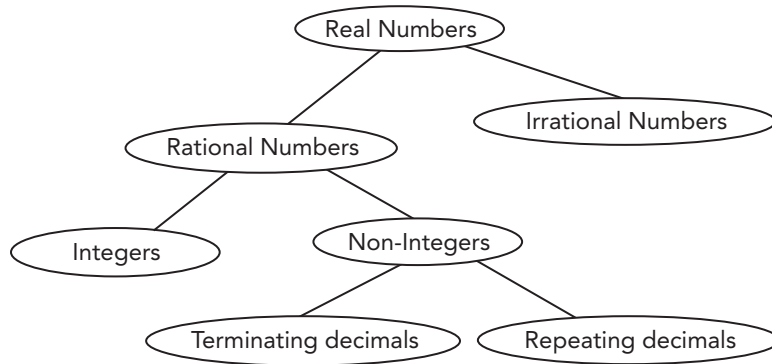
In this chapter, your student will learn about the real number system. Some of the skills your student will practice are:

- the absolute value of a number
- writing rational numbers in fractional form, and as terminating or repeating decimals
- identifying and using significant digits

Activity

Understanding how subsets of the real numbers are related is an important concept for future math classes. You can help your student understand this concept with this activity.

- Copy this “family tree” of the real number system by hand or enlarge it with a photocopier.



- Choose one of the numbers below and place it in its most specific branch on the family tree.

$$6, \frac{1}{4}, \sqrt{3}, \frac{1}{7}, 0, -11, -\frac{2}{3}, \sqrt{4}, \frac{5}{8}, \sqrt{5}$$

- Give all the possible names for the number. For example, $\frac{5}{8}$ is a terminating decimal, a rational number, and a real number. Repeat the activity with the remaining numbers.

Vocabulary to Practice

The set of whole numbers and their opposites is called the **integers**.

A **rational number**, such as $\frac{12}{5}$, can be written as the ratio of two integers. An **irrational number** cannot.

You can write a rational number as a decimal by dividing its numerator by its denominator. The decimal may **terminate** or it may **repeat**. Repeating decimals are written with bars over the repeating digits:

$$\frac{5}{6} = 0.83333333\dots = 0.8\bar{3}.$$



Online Resources

For additional Parent Resources my.hrw.com