

Chapter 5 Rates

Dear Family,

In this chapter, your student will learn to work with rates. Some of the skills that your student will practice are:

- using rates to compare quantities
- solving problems involving rates and unit rates
- using the equation $\text{distance} = \text{speed} \times \text{time}$ (or $\text{distance} = \text{rate} \times \text{time}$) to solve problems

Activity

You and your student can explore using unit rates to make comparisons in this activity.

- Choose an action that you and your student can both do easily and quickly, such as signing your name or doing a jumping jack.
- Using a timer, have one person complete the same action as many times as possible for 2 minutes and the other person for 3 minutes. Keep track of your totals.

- Write each result as a rate, such as:

$$\frac{\text{Number of times parent writes his or her name}}{3 \text{ minutes}}$$

$$\frac{\text{Number of times student writes his or her name}}{2 \text{ minutes}}$$

- Compare your rates. Who do you think has a lower rate?
- Convert each rate to a unit rate. The denominator of each fraction will be 1 minute:

$$\frac{\text{Number of times student writes his or her name} \div 2}{2 \text{ minutes} \div 2} = \frac{?}{1 \text{ minute}}$$

- Compare the rates again. Is it easier to compare the unit rates or the original rates? Why?

Vocabulary to Practice

A **ratio** is used to compare two quantities with the same unit.

A **rate** is used to compare two quantities with different units.

A **unit rate** is a rate for one unit of a given quantity, such as \$3.00 for 1 gallon.

Speed is a special rate that compares a distance to a unit of time, such as miles per hour.



Online Resources

For additional Parent Resources my.hrw.com