

# 5 Ratios, Rates, and Data Analysis

5.1 Ratios

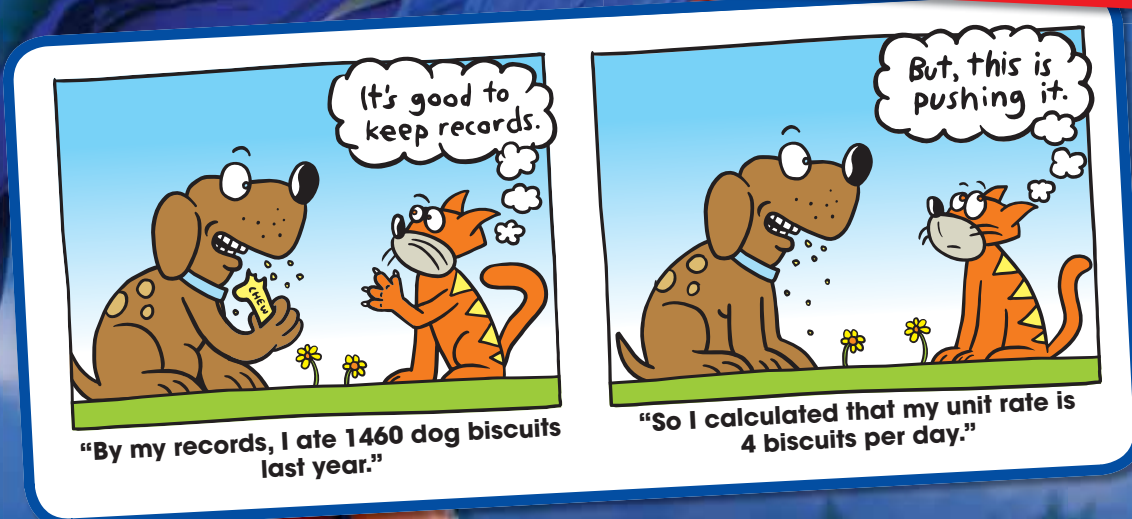
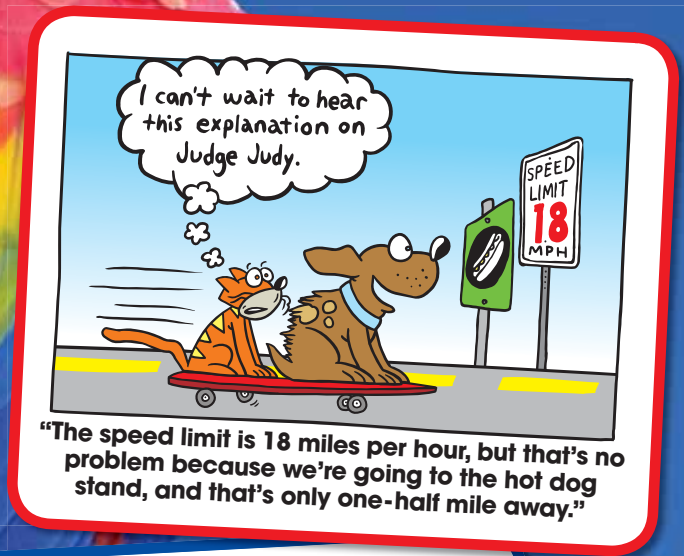
5.2 Rates

5.3 Solving Rate Problems

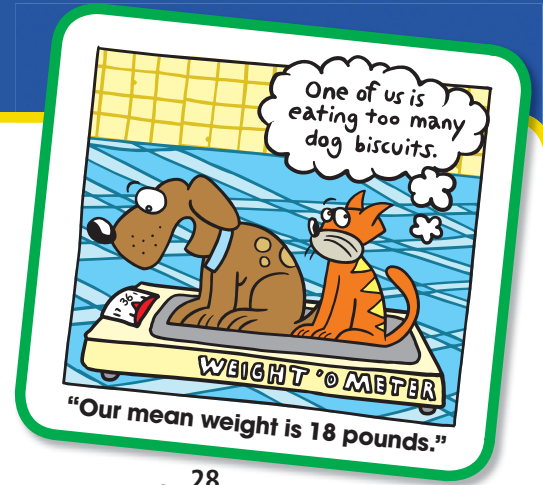
5.4 Mean

5.5 Median, Mode, and Range

5.6 Analyzing Data Sets



# What You Learned Before



## Simplifying Fractions

**Example 1** Simplify  $\frac{3}{6}$ .

$$\frac{3 \div 3}{6 \div 3} = \frac{1}{2}$$

Use the Greatest Common Factor to simplify the fraction.

**Example 2** Simplify  $\frac{28}{36}$ .

$$\frac{28 \div 4}{36 \div 4} = \frac{7}{9}$$

### Try It Yourself

Simplify the fraction.

1.  $\frac{10}{100}$

2.  $\frac{20}{35}$

3.  $\frac{60}{144}$

4.  $\frac{62}{80}$

## Analyzing Double Bar Graphs

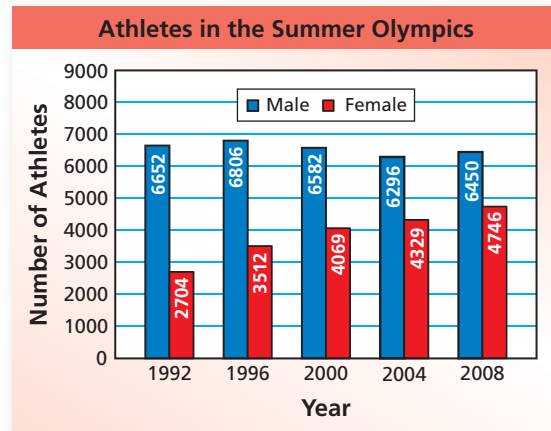
**Example 3** How many more male athletes than female athletes participated in the 1992 Summer Olympics?

$$6652 - 2704 = 3948$$

Number of male athletes in 1992

Number of female athletes in 1992

3948 more male athletes participated.



**Example 4** How many athletes participated in the 2000 Summer Olympics.

10,651 athletes participated in the 2000 Summer Olympics.

### Try It Yourself

- How many more female athletes participated in the 2008 Summer Olympics than in the 1992 Summer Olympics?
- Describe the relationship between the number of athletes in the 2000 Summer Olympics and the number of athletes in the 2004 Summer Olympics.