

## EQUIVALENT FRACTIONS

1.2.4 and 1.2.5

Fractions that name the same value are called equivalent fractions, such as  $\frac{2}{3} = \frac{6}{9}$ . One method for finding equivalent fractions is to use the Multiplicative Identity (Identity Property of Multiplication), that is, multiplying the given fraction by a form of the number 1 such as  $\frac{2}{2}$ ,  $\frac{5}{5}$ , etc. In this course we call these fractions a “Giant One.” Multiplying by 1 does not change the value of a number.

For additional information, see the Math Notes box in Lesson 1.2.8 of the *Core Connections, Course 2* text.

### Example 1

Find three equivalent fractions for  $\frac{1}{2}$ .

$$\frac{1}{2} \cdot \frac{2}{2} = \frac{2}{4}$$

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

$$\frac{1}{2} \cdot \frac{4}{4} = \frac{4}{8}$$

### Example 2

Use the Giant One to find an equivalent fraction to  $\frac{7}{12}$  using 96ths:  $\frac{7}{12} \cdot \frac{?}{?} = \frac{?}{96}$

Which Giant One do you use?

Since  $\frac{96}{12} = 8$ , the Giant One is  $\frac{8}{8}$ :

$$\frac{7}{12} \cdot \frac{8}{8} = \frac{56}{96}$$

### Problems

Use the Giant One to find the specified equivalent fraction. Your answer should include the Giant One you use and the equivalent numerator.

1.  $\frac{4}{3} \cdot \frac{?}{?} = \frac{?}{15}$

2.  $\frac{5}{9} \cdot \frac{?}{?} = \frac{?}{36}$

3.  $\frac{9}{2} \cdot \frac{?}{?} = \frac{?}{38}$

4.  $\frac{3}{7} \cdot \frac{?}{?} = \frac{?}{28}$

5.  $\frac{5}{3} \cdot \frac{?}{?} = \frac{?}{18}$

6.  $\frac{6}{5} \cdot \frac{?}{?} = \frac{?}{15}$