

## LESSON

**Skills Readiness****10****Simplify Fractions**

Definition: a fraction is in simplest form when the numerator and the denominator do not share any common factors, other than the factor of 1. An improper fraction should be written as a mixed number.

To write a fraction in simplest form:

**Step 1:** List all the factors of the numerator and the denominator.

**Step 2:** Identify the greatest common factor (GCF).

**Step 3:** Divide both the numerator and the denominator by the GCF.

Example: Write  $\frac{18}{45}$  in simplest form. Factors of 18: {1, 2, 3, 6, 9, 18}  
 Factors of 45: {1, 3, 5, 9, 15, 45}  
 GCF: 9  
 $\frac{18 \div 9}{45 \div 9} = \frac{2}{5}$   $\frac{18}{45}$  written in simplest form is  $\frac{2}{5}$ .

**Practice on Your Own**

Identify the greatest common factor of the numerator and denominator of the fractions given.

1.  $\frac{16}{24}$  Factors of 16: \_\_\_\_\_ 2.  $\frac{36}{63}$  Factors of 36: \_\_\_\_\_  
 Factors of 24: \_\_\_\_\_ Factors of 63: \_\_\_\_\_  
 GCF: \_\_\_\_\_ GCF: \_\_\_\_\_

Write each fraction in simplest form.

3.  $\frac{6 \div \square}{20 \div \square} = \frac{\square}{\square}$  4.  $\frac{60 \div \square}{72 \div \square} = \frac{\square}{\square}$  5.  $\frac{45 \div \square}{54 \div \square} = \frac{\square}{\square}$   
 6.  $\frac{121}{66}$  \_\_\_\_\_ 7.  $\frac{49}{56}$  \_\_\_\_\_ 8.  $\frac{24}{26}$  \_\_\_\_\_

**Check**

Identify the greatest common factor of the numerator and denominator of the fractions given.

9.  $\frac{4}{12}$  GCF = \_\_\_\_\_ 10.  $\frac{4}{9}$  GCF = \_\_\_\_\_ 11.  $\frac{15}{35}$  GCF = \_\_\_\_\_ 12.  $\frac{24}{180}$  GCF = \_\_\_\_\_

Write each fraction in simplest form.

13.  $\frac{15 \div \square}{21 \div \square} = \frac{\square}{\square}$  14.  $\frac{5 \div \square}{18 \div \square} = \frac{\square}{\square}$  15.  $\frac{14 \div \square}{49 \div \square} = \frac{\square}{\square}$   
 16.  $\frac{32}{40}$  \_\_\_\_\_ 17.  $\frac{20}{16}$  \_\_\_\_\_ 18.  $\frac{72}{81}$  \_\_\_\_\_