

# Lesson 2 Reteach

## Complex Fractions and Unit Rates

Fractions like  $\frac{\frac{2}{3}}{\frac{3}{4}}$  are called complex fractions. **Complex fractions** are fractions with a numerator, denominator, or both that are also fractions.

### Example 1

Simplify  $\frac{\frac{2}{3}}{\frac{3}{4}}$ .

A fraction can also be written as a division problem.

$$\frac{\frac{2}{3}}{\frac{3}{4}} = 2 \div \frac{3}{4}$$

Write the complex fraction as a division problem.

$$= \frac{2}{1} \times \frac{4}{3}$$

Multiply by the reciprocal of  $\frac{3}{4}$ , which is  $\frac{4}{3}$ .

$$= \frac{8}{3} \text{ or } 2\frac{2}{3}$$

Simplify.

So,  $\frac{\frac{2}{3}}{\frac{3}{4}}$  is equal to  $2\frac{2}{3}$ .

### Exercises

Simplify.

1.  $\frac{\frac{3}{1}}{\frac{1}{3}}$  9

2.  $\frac{\frac{5}{3}}{\frac{3}{7}}$   $\frac{35}{3}$  or  $11\frac{2}{3}$

3.  $\frac{\frac{4}{1}}{\frac{1}{5}}$  20

4.  $\frac{\frac{2}{4}}{\frac{9}{9}}$   $\frac{9}{2}$  or  $4\frac{1}{2}$

5.  $\frac{\frac{1}{4}}{\frac{5}{5}}$   $\frac{5}{4}$  or  $1\frac{1}{4}$

6.  $\frac{\frac{10}{7}}{\frac{80}{7}}$   $\frac{80}{7}$  or  $11\frac{3}{7}$

7.  $\frac{\frac{3}{5}}{\frac{3}{7}}$   $\frac{7}{5}$  or  $1\frac{2}{5}$

8.  $\frac{\frac{1}{6}}{\frac{5}{6}}$   $\frac{1}{5}$

9.  $\frac{\frac{4}{9}}{\frac{9}{10}}$   $\frac{8}{9}$

10.  $\frac{\frac{3}{5}}{\frac{3}{10}}$  2