



Name \_\_\_\_\_ Date \_\_\_\_\_

## Multiplying Fractions (pages 273–276)

Use the following rules to multiply fractions.

<b>Multiplying Fractions</b>	To multiply fractions, multiply the numerators and multiply the denominators. Simplify if necessary.
<b>Simplify Before You Multiply</b>	You can simplify before you multiply fractions if the numerator of one fraction and the denominator of another fraction have a common factor.

### EXAMPLES

Find each product.

**A**  $\frac{1}{3} \times \frac{2}{5}$

$$\frac{1}{3} \times \frac{2}{5} = \frac{1 \times 2}{3 \times 5}$$

To multiply fractions, multiply the numerators and the denominators

$$= \frac{2}{15}$$

You cannot simplify  $\frac{2}{15}$ .

**B**  $\frac{4}{7} \times \frac{3}{8}$

$$\frac{4}{7} \times \frac{3}{8}$$

Estimate:  $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

$$= \frac{\overset{1}{\cancel{4}} \times 3}{7 \times \underset{2}{\cancel{8}}}$$

The GCF of 4 and 8 is 4. Divide both the numerator and denominator by 4 and then multiply.

$$= \frac{3}{14}$$

### Try These Together

Find each product.

1.  $\frac{1}{2} \times \frac{3}{8}$

HINT: Multiply the numerators and the denominators.

2.  $\frac{5}{6} \times \frac{3}{25}$

HINT: Simplify before you multiply.

### PRACTICE

Find each product. Write in simplest form.

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

4.  $\frac{5}{8} \times \frac{2}{3}$

5.  $\frac{2}{3} \times \frac{6}{8}$

6.  $\frac{2}{3} \times \frac{1}{9}$

7.  $\frac{3}{5} \times \frac{5}{12}$

8.  $\frac{1}{3} \times \frac{9}{10}$

9.  $\frac{1}{12} \times \frac{4}{5}$

10.  $\frac{3}{7} \times \frac{4}{9}$

11.  $\frac{3}{5} \times \frac{3}{4}$



- 12. Standardized Test Practice** There are a dozen eggs in a carton. You use  $\frac{1}{6}$  for an omelet. Your sister uses  $\frac{1}{5}$  of the leftover eggs for a cake. How many eggs are left?

**A** 10

**B** 2

**C** 8

**D** 6

Answers: 1.  $\frac{3}{8}$  2.  $\frac{10}{9}$  3.  $\frac{8}{3}$  4.  $\frac{12}{5}$  5.  $\frac{2}{1}$  6.  $\frac{27}{2}$  7.  $\frac{4}{1}$  8.  $\frac{10}{3}$  9.  $\frac{15}{1}$  10.  $\frac{4}{4}$  11.  $\frac{20}{9}$  12. C