

# 3.6

## Fraction Multiplication: Problem Type 2

### • Example 1

Multiply.

$$\frac{2}{3} \times \frac{4}{5} = \frac{2 \times 4}{3 \times 5} = \frac{8}{15}$$

$$\frac{5}{8} \times \frac{7}{9} = \frac{5 \times 7}{8 \times 9} = \frac{35}{72}$$

### • • • CHECK YOURSELF 1

Multiply.

a.  $\frac{7}{8} \times \frac{3}{10}$

b.  $\frac{5}{7} \times \frac{3}{4}$

### • Example 2

Multiply and write the result in lowest terms.

$$\frac{3}{4} \times \frac{2}{9} = \frac{3 \times 2}{4 \times 9} = \frac{6}{36} = \frac{1}{6}$$

Noting that  $\frac{6}{36}$  is not in simplest form, we divide numerator and denominator by 6 to write the product in lowest terms.

### • • • CHECK YOURSELF 2

Multiply and write the result in lowest terms.

$$\frac{5}{7} \times \frac{3}{10}$$

### • • • CHECK YOURSELF ANSWERS

1. (a)  $\frac{7}{8} \times \frac{3}{10} = \frac{7 \times 3}{8 \times 10} = \frac{21}{80}$ ; (b)  $\frac{5}{7} \times \frac{3}{4} = \frac{5 \times 3}{7 \times 4} = \frac{15}{28}$ .

2.  $\frac{5}{7} \times \frac{3}{10} = \frac{5 \times 3}{7 \times 10} = \frac{15}{70} = \frac{3}{14}$ .

# 3.6 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

1. \_\_\_\_\_
2. \_\_\_\_\_
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17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_
21. \_\_\_\_\_

Multiply. Be sure to simplify each product.

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

2.  $\frac{2}{7} \times \frac{5}{9}$

3.  $\frac{3}{4} \times \frac{7}{5}$

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

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

6.  $\frac{6}{11} \times \frac{8}{6}$

7.  $\frac{6}{13} \times \frac{4}{9}$

8.  $\frac{5}{9} \times \frac{6}{11}$

9.  $\frac{3}{11} \times \frac{7}{9}$

10.  $\frac{7}{9} \times \frac{3}{5}$

11.  $\frac{3}{10} \times \frac{5}{9}$

12.  $\frac{5}{21} \times \frac{14}{25}$

13.  $\frac{7}{9} \times \frac{6}{5}$

14.  $\frac{8}{13} \times \frac{26}{5}$

15.  $7 \times \frac{5}{6}$

16.  $\frac{3}{4} \times \frac{7}{11}$

17.  $\frac{2}{5} \times \frac{3}{7}$

18.  $\frac{5}{8} \times \frac{6}{11}$

19.  $\frac{4}{9} \times \frac{7}{12}$

20.  $\frac{6}{7} \times \frac{5}{12}$

21.  $\frac{5}{9} \times \frac{18}{25}$