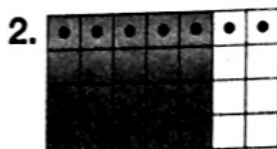
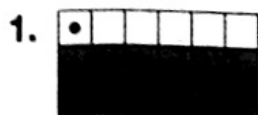


# Multiplying Two Fractions

Write the multiplication problem that each model represents then solve. Put your answer in simplest form.



\_\_\_\_\_

\_\_\_\_\_

Find each product. Simplify if possible.

3.  $\frac{7}{8} \times \frac{4}{5} =$  \_\_\_\_\_

4.  $\frac{3}{7} \times \frac{2}{3} =$  \_\_\_\_\_

5.  $\frac{1}{6} \times \frac{2}{5} =$  \_\_\_\_\_

6.  $\frac{2}{7} \times \frac{1}{4} =$  \_\_\_\_\_

7.  $\frac{2}{9} \times \frac{1}{2} =$  \_\_\_\_\_

8.  $\frac{3}{4} \times \frac{1}{3} =$  \_\_\_\_\_

9.  $\frac{3}{8} \times \frac{4}{9} =$  \_\_\_\_\_

10.  $\frac{1}{5} \times \frac{5}{6} =$  \_\_\_\_\_

11.  $\frac{2}{3} \times \frac{5}{6} \times 14 =$  \_\_\_\_\_

12.  $\frac{1}{2} \times \frac{1}{3} \times \frac{1}{4} =$  \_\_\_\_\_

13. **Algebra** If  $\frac{4}{5} \times \blacksquare = \frac{2}{5}$ , what is  $\blacksquare$ ? \_\_\_\_\_

14. Ms. Shoemaker's classroom has 35 desks arranged in 5 by 7 rows. How many students does Ms. Shoemaker have in her class if there are  $\frac{6}{7} \times \frac{4}{5}$  desks occupied? \_\_\_\_\_

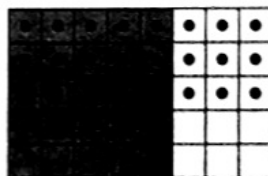
15. Which does the model represent?

A  $\frac{3}{8} \times \frac{3}{5}$

C  $\frac{3}{5} \times \frac{5}{8}$

B  $\frac{7}{8} \times \frac{2}{5}$

D  $\frac{4}{8} \times \frac{3}{5}$



16. **Explain It** Describe a model that represents  $\frac{3}{3} \times \frac{4}{4}$ .

\_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

# Multiplying Mixed Numbers

Estimate the product. Then complete the multiplication.

$$1. 5\frac{4}{5} \times 7 = \frac{\boxed{\phantom{000}}}{5} \times \frac{7}{1} = \boxed{\phantom{000}}$$

$$2. 3\frac{2}{3} \times 5\frac{1}{7} = \frac{\boxed{\phantom{000}}}{3} \times \frac{\boxed{\phantom{000}}}{7} = \boxed{\phantom{000}}$$

Estimate. Then find each product. Simplify.

$$3. 4\frac{3}{5} \times \frac{2}{3} \quad \underline{\hspace{2cm}}$$

$$4. 6 \times 2\frac{2}{7} \quad \underline{\hspace{2cm}}$$

$$5. 7\frac{4}{5} \times 2\frac{1}{3} \quad \underline{\hspace{2cm}}$$

$$6. 3\frac{3}{4} \times 2\frac{4}{5} \quad \underline{\hspace{2cm}}$$

$$7. 2\frac{1}{5} \times \frac{7}{8} \quad \underline{\hspace{2cm}}$$

$$8. 6\frac{1}{3} \times 1\frac{5}{8} \quad \underline{\hspace{2cm}}$$

$$9. 1\frac{4}{5} \times 1\frac{1}{3} \times 1\frac{3}{4} \quad \underline{\hspace{2cm}}$$

$$10. \frac{3}{4} \times 2\frac{2}{3} \times 5\frac{1}{5} \quad \underline{\hspace{2cm}}$$

11. **Algebra** Write a mixed number for  $p$  so that  $3\frac{1}{4} \times p$  is more than  $3\frac{1}{4}$ .

12. A model house is built on a base that measures  $9\frac{1}{4}$  in. wide and  $8\frac{4}{5}$  in. long. What is the total area of the model house's base?

13. Which is  $1\frac{3}{4}$  of  $150\frac{1}{2}$ ?

A 263

B  $263\frac{1}{8}$ C  $263\frac{3}{8}$ D  $264\frac{3}{8}$ 

14. **Explain It** Megan's dog Sparky eats  $4\frac{1}{4}$  cups of food each day. Explain how Megan can determine how much food to give Sparky if she needs to feed him only  $\frac{2}{3}$  as much. Solve the problem.

# Relating Division to Multiplication of Fractions

In 1 and 2, use the picture to find each quotient.



1. How many thirds are in 1?

\_\_\_\_\_

2. How many thirds are in 7?

\_\_\_\_\_

In 3 and 4, draw a picture to find each quotient.

3.  $3 \div \frac{1}{2}$

\_\_\_\_\_

4.  $4 \div \frac{1}{8}$

\_\_\_\_\_

In 5 and 6, use multiplication to find each quotient.

5.  $6 \div \frac{1}{3}$

\_\_\_\_\_

6.  $5 \div \frac{1}{10}$

\_\_\_\_\_

7. Julie bought 3 yards of cloth to make holiday napkin rings. If she needs  $\frac{3}{4}$  of a yard to make each ring, how many rings can she make?

\_\_\_\_\_

8. **Reasoning** When you divide a whole number by a fraction with a numerator of 1, explain how you can find the quotient.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

## Problem Solving: Draw a Picture and Write an Equation

Solve each problem. Draw a picture to show the main idea for each problem. Then write an equation and solve it. Write the answer in a complete sentence.

1. Bobby has 3 times as many model spaceships as his friend Sylvester does. Bobby has 21 spaceships. How many model spaceships does Sylvester have?

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2. Dan saved \$463 over the 12 weeks of summer break. He saved \$297 of it during the last 4 weeks. How much did he save during the first 8 weeks?

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3. **Strategy Practice** Use a separate sheet of paper to show the main idea for the following problem. Choose the answer that solves the problem correctly.

A box of peanut-butter crackers was divided evenly among 6 children. Each child got 9 crackers. How many crackers were in the box?

A 54      B 48      C 39      D 36

4. **Explain It** Why is it helpful to draw a picture when attempting to solve an equation?

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