

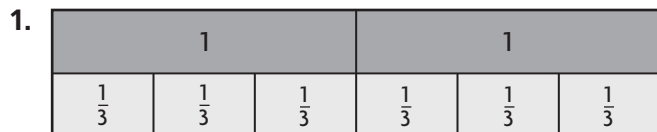
Name \_\_\_\_\_

## Divide Fractions and Whole Numbers



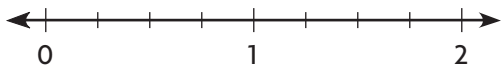
**COMMON CORE STANDARDS—5.NF.7a, 5.NF.7b** Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Divide and check the quotient.



$2 \div \frac{1}{3} = \underline{6}$  because  $\underline{6} \times \frac{1}{3} = 2$ .

2.



$2 \div \frac{1}{4} = \underline{\hspace{2cm}}$  because  $\underline{\hspace{2cm}} \times \frac{1}{4} = 2$ .

3.



$\frac{1}{4} \div 2 = \underline{\hspace{2cm}}$  because  $\underline{\hspace{2cm}} \times 2 = \frac{1}{4}$ .

Divide. Draw a number line or use fraction strips.

4.  $1 \div \frac{1}{5} = \underline{\hspace{2cm}}$

5.  $\frac{1}{6} \div 3 = \underline{\hspace{2cm}}$

6.  $4 \div \frac{1}{6} = \underline{\hspace{2cm}}$

7.  $3 \div \frac{1}{3} = \underline{\hspace{2cm}}$

8.  $\frac{1}{4} \div 6 = \underline{\hspace{2cm}}$

9.  $5 \div \frac{1}{4} = \underline{\hspace{2cm}}$

### Problem Solving



10. Amy can run  $\frac{1}{10}$  mile per minute. How many minutes will it take Amy to run 3 miles?

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11. Jeremy has 3 yards of ribbon to use for wrapping gifts. He cuts the ribbon into pieces that are  $\frac{1}{4}$  yard long. How many pieces of ribbon does Jeremy have?

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## Lesson Check (5.NF.7a, 5.NF.7b)

1. Kaley cuts half of a loaf of bread into 4 equal parts. What fraction of the whole loaf does each of the 4 parts represent?
2. When you divide a fraction less than 1 by a whole number greater than 1, is the quotient less than, greater than, or equal to the dividend?

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## Spiral Review (5.NF.1, 5.NF.4a, 5.NF.6)

3. A recipe for chicken and rice calls for  $3\frac{1}{2}$  pounds of chicken. Lisa wants to adjust the recipe so that it yields  $1\frac{1}{2}$  times as much chicken and rice. How much chicken will she need?
4. Tim and Sue share a small pizza. Tim eats  $\frac{2}{3}$  of the pizza. Sue eats half as much of the pizza as Tim does. What fraction of the pizza does Sue eat?
5. In gym class, you run  $\frac{3}{5}$  mile. Your coach runs 10 times that distance each day. How far does your coach run each day?
6. Sterling plants a tree that is  $4\frac{3}{4}$  feet tall. One year later, the tree is  $5\frac{2}{5}$  feet tall. How many feet did the tree grow?

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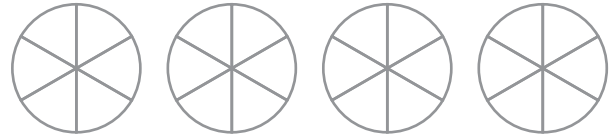
Name \_\_\_\_\_

**Problem Solving • Use Multiplication**



**COMMON CORE STANDARD—5.NF.7b**  
*Apply and extend previous understandings of multiplication and division to multiply and divide fractions.*

1. Sebastian bakes 4 pies and cuts each pie into sixths.  
 How many  $\frac{1}{6}$ -pie slices does he have?



To find the total number of sixths in the 4 pies, multiply 4 by the number of sixths in each pie.

$$4 \div \frac{1}{6} = 4 \times 6 = 24 \text{ one-sixth-pie slices}$$

2. Ali has 2 vegetable pizzas that she cuts into eighths.  
 How many  $\frac{1}{8}$ -size pieces does she have?

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3. A baker has 6 loaves of bread. Each loaf weighs 1 pound. He cuts each loaf into thirds. How many  $\frac{1}{3}$ -pound loaves of bread does the chef now have?

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4. Suppose the baker has 4 loaves of bread and cuts the loaves into halves. How many  $\frac{1}{2}$ -pound loaves of bread would the baker have?

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5. Madalyn has 3 watermelons that she cuts into halves to give to her neighbors. How many neighbors will get a  $\frac{1}{2}$ -size piece of watermelon?

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6. A landscaper had 5 tons of rock to build decorative walls. He used  $\frac{1}{4}$  ton of rock for each wall. How many decorative walls did he build?

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## Lesson Check (5.NF.7b)

1. Julia has 12 pieces of fabric and cuts each piece into fourths. How many  $\frac{1}{4}$  pieces of fabric does she have?
2. Josue has 3 chicken pot pies that he cuts into thirds. How many  $\frac{1}{3}$ -size chicken pot pies pieces does he have?

## Spiral Review (5.NBT.2, 5.NF.4a, 5.NF.7a, 5.NF.7b)

3. Write a related multiplication sentence that could help you find the quotient of  $6 \div \frac{1}{4}$ .
4. Ellie uses 12.5 pounds of potatoes to make mashed potatoes. She uses one-tenth as many pounds of butter as potatoes. How many pounds of butter does Ellie use?
5. Tiffany collects perfume bottles. She has 99 bottles in her collection. Two-thirds of her perfume bottles are made of crystal. How many of the perfume bottles in Tiffany's collection are made of crystal?
6. Stephen buys a melon and divides it into 6 servings. He eats  $\frac{1}{3}$  of the melon over the weekend. How many slices of melon does Stephen eat over the weekend?

Name \_\_\_\_\_

**Connect Fractions to Division****COMMON CORE STANDARD—5.NF.3***Apply and extend previous understandings of multiplication and division to multiply and divide fractions.***Complete the number sentence to solve.**

1. Six students share 8 apples equally. How many apples does each student get?

$$8 \div 6 = \underline{\frac{8}{6}}, \text{ or } \underline{1\frac{1}{3}}$$

2. Ten boys share 7 cereal bars equally. What fraction of a cereal bar does each boy get?

$$7 \div 10 = \underline{\hspace{2cm}}$$

3. Eight friends share 12 burritos equally. How many burritos does each friend get?

$$12 \div 8 = \underline{\hspace{2cm}}$$

4. Three girls share 8 yards of fabric equally. How many yards of fabric does each girl get?

$$8 \div 3 = \underline{\hspace{2cm}}$$

5. Five bakers share 2 loaves of bread equally. What fraction of a loaf of bread does each baker get?

$$2 \div 5 = \underline{\hspace{2cm}}$$

6. Nine friends share 6 bananas equally. What fraction of a bananas does each friend get?

$$6 \div 9 = \underline{\hspace{2cm}}$$

7. Twelve students share 3 pizzas equally. What fraction of a pizza does each student get?

$$3 \div 12 = \underline{\hspace{2cm}}$$

8. Three sisters share 5 sandwiches equally. How many sandwiches does each sister get?

$$5 \div 3 = \underline{\hspace{2cm}}$$

**Problem Solving**

9. There are 12 students in a jewelry-making class and 8 sets of charms. What fraction of a set of charms will each student get?

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10. Five friends share 6 fruit snacks equally. How many fruit snacks will each friend get?

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## Lesson Check (5.NF.3)

1. Eight friends share 4 bunches of grapes equally. What fraction of a bunch of grapes does each friend get?
2. Ten students share 8 pieces of poster board equally. What fraction of a piece of poster board does each student get?

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## Spiral Review (5.NBT.6, 5.NBT.7, 5.NF.7a, 5.NF.7b)

3. Arturo has a log that is 4 yards long. He cuts the log into pieces that are  $\frac{1}{3}$ -yard long. How many pieces will Arturo have?
4. Vu has 2 pizzas that he cuts into sixths. How many  $\frac{1}{6}$ -size pieces does he have?

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5. Kayaks rent for \$35 per day. Write an expression using the Distributive Property that can help you find the cost in dollars of renting 3 kayaks for a day.
6. Louisa is 152.7 centimeters tall. Her younger sister is 8.42 centimeters shorter than she is. How tall is Louisa's younger sister?

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