Name _____

1

a. What can you multiply by 4 to get 8?

b. What can you multiply by 4 to get 7?

c. What can you multiply by 4 to get 6?

Name _____

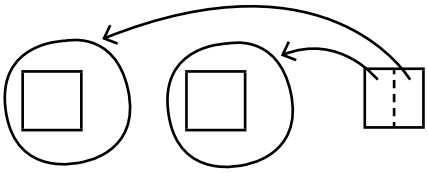
Try This

- Model the problem using Color Tiles.
- Sketch the division process.
- Write your answer as a fraction.

3 ÷ 2 = ?

Think: Divide 3 Color Tiles into 2 equal shares.
Give 1 whole tile to each share.
Think: Give $\frac{1}{2}$ of the remainder to each share.

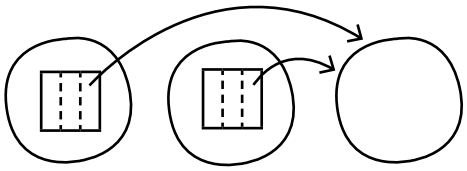
$3 \div 2 = 1 + \frac{1}{2} = 1\frac{1}{2} = \frac{3}{2}$



2 ÷ 3 = ?

Think: Divide 2 Color Tiles into 3 equal shares.
You have tiles for only 2 shares.
Think: Take $\frac{1}{3}$ from each tile for the third share.

$2 \div 3 = 1 - \frac{1}{3} = \frac{2}{3}$



1. $5 \div 4 =$ _____

2. $4 \div 5 =$ _____

3. $5 \div 3 =$ _____

Solve the problem. Use Color Tiles if needed.

4. Penny watered 8 plants using 7 gallons of water. If she used the same amount of water on every plant, how many gallons of water did each plant get?

_____

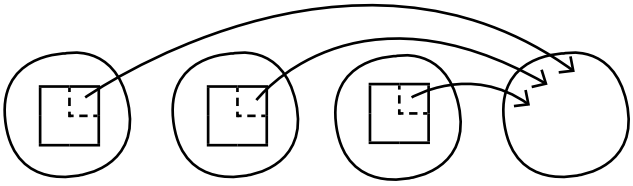
5. Latrelle hiked 25 miles during his 4-day vacation. He hiked the same distance each day. How many miles did Latrelle hike each day?

_____

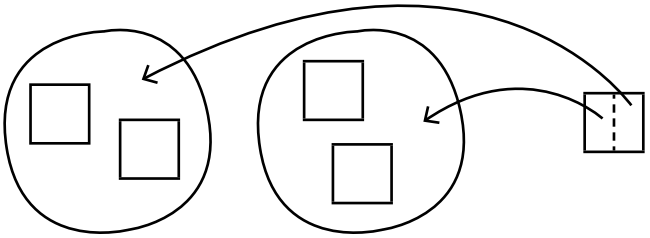
Name _____

Use Color Tiles to model the problem. Refer to the given sketch to help you find the answer. Write the answer as a fraction.

1. $3 \div 4 = 1 - \frac{1}{4} =$ _____



2. $5 \div 2 = 2 +$ _____ = _____



Use Color Tiles to model the problem. Sketch the model and the division process. Write the answer as a fraction.

3. $4 \div 3 =$ _____

Solve the problem. Use Color Tiles if needed.

4. This week, the 8 members of the baking club used 17 pounds of flour. If they shared the flour equally, how many pounds of flour did each member use?

_____

5. Rudi practiced piano 6 days this week. She practiced the same amount of time each day, and she practiced 5 hours in all. How many hours did Rudi practice each day?

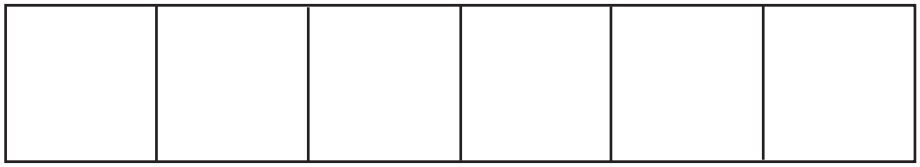
_____

Name _____

2

This is one way to lay out 6 squares so that they touch full edge to full edge.

Draw as many other ways as you can.



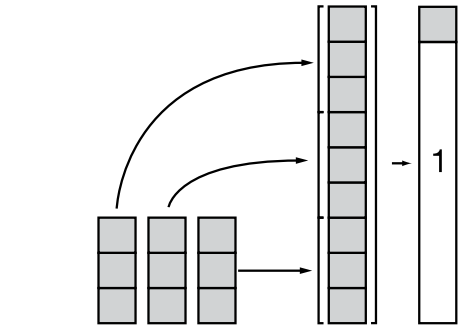
Lesson 2

Fraction Tower Times

Name _____

Try This

- Use Fraction Tower Cubes to model problems 1–6.
- Snap together all the fraction parts on the tower outline or use your number line.
- Write the product in simplest form.
- Solve problems 7–8 without models.



$$3 \times \frac{3}{8} = \frac{3}{8} + \frac{3}{8} + \frac{3}{8} = \frac{9}{8} = 1\frac{1}{8}$$

1. $4 \times \frac{1}{6} = \frac{\quad}{6} =$ _____

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

3. $6 \times \frac{1}{4} = \frac{\quad}{4} = 1\frac{\quad}{4} = 1$_____

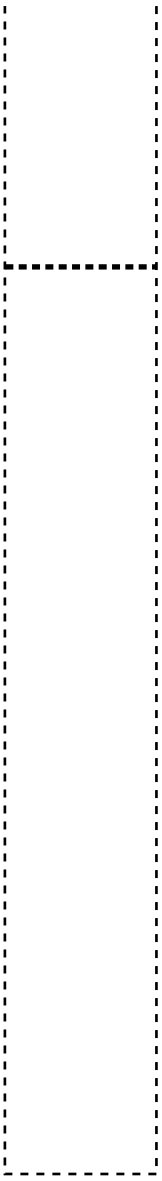
4. $3 \times \frac{3}{10} =$ _____

5. $\frac{5}{12} \times 2 =$ _____ = _____

6. $\frac{2}{10} \times 5 =$ _____ = _____

7. $\frac{2}{5} \times 3 = \frac{\quad}{5} = 1$_____

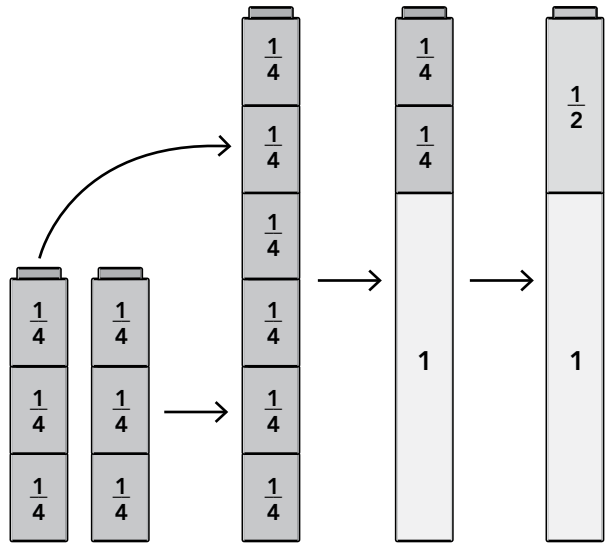
8. $\frac{2}{3} \times 3 =$ _____ = _____



Name _____

Use Fraction Tower Cubes to model the multiplication. Fill in the blanks.

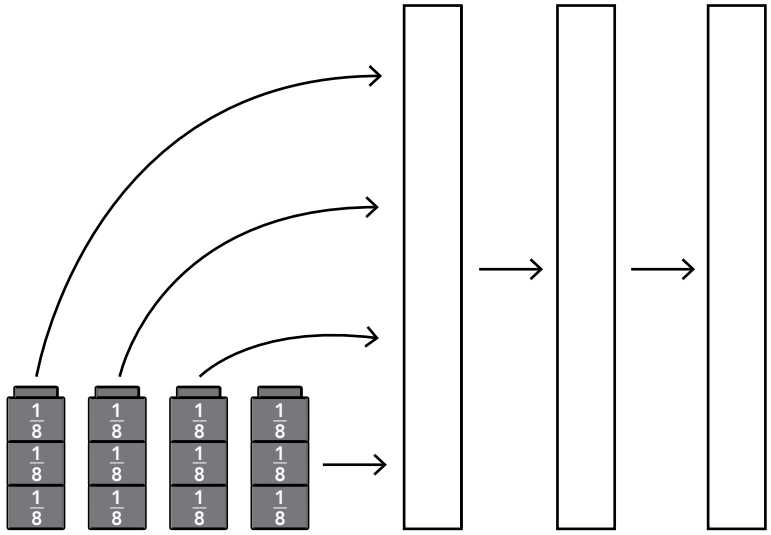
1.



$2 \times \frac{3}{4} =$ _____ + _____ = _____ = _____ = _____

Use Fraction Tower Cubes to model the multiplication. Complete the drawing. Fill in the blanks.

2.



$\frac{3}{8} \times 4 = \frac{(\_\_\_\_ \times \_\_\_\_)}{8}$ = _____ = _____ = _____

Find the product as a mixed number in simplest form.

3. $\frac{5}{6} \times 2 =$ _____ = _____ = _____

4. $\frac{5}{12} \times 3 =$ _____ = _____ = _____

5. $\frac{5}{8} \times 3 =$ _____ = _____

6. $\frac{3}{5} \times 4 =$ _____ = _____

Name _____

3

a. Shade $\frac{4}{5}$ of the rectangle.

b. Now circle half of that.

Lesson 3

Watch for the Overlap

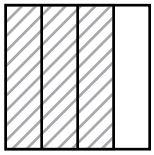
Name _____

Try This

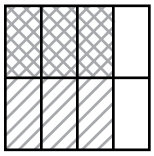
- Use Fraction Squares to model and draw the problem.
- Write the product in simplest form.

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

Show $\frac{3}{4}$



Show $\frac{1}{2}$ of $\frac{3}{4}$



Product
$\frac{1}{2} \times \frac{3}{4} = \frac{3}{8}$

The overlap of the fraction parts is the product.

1. $\frac{1}{3} \times \frac{1}{2} =$ _____

2. $\frac{1}{2} \times \frac{1}{3} =$ _____

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

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

For problems 5–10, write the product.

5. $\frac{1}{3} \times \frac{9}{10} =$ _____

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

7. $\frac{2}{5} \times \frac{3}{5} =$ _____

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

9. $\frac{3}{10} \times \frac{5}{8} =$ _____

10. $\frac{2}{3} \times \frac{3}{8} =$ _____

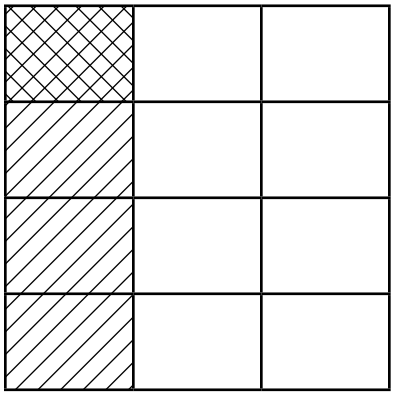
Lesson 3

Watch for the Overlap

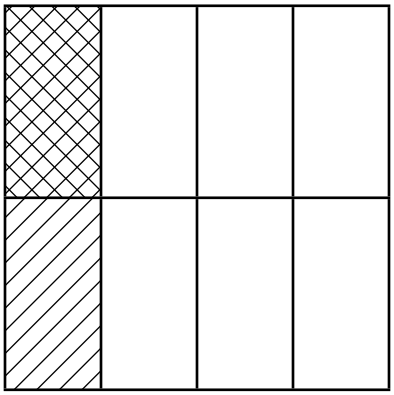
Name _____

Use Fraction Squares to model the multiplication problem. Write the product.

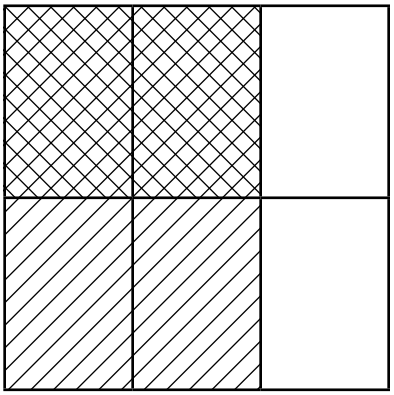
1. $\frac{1}{4} \times \frac{1}{3} = \frac{}{12}$



2. $\frac{1}{2} \times \frac{1}{4} = \frac{}{8}$

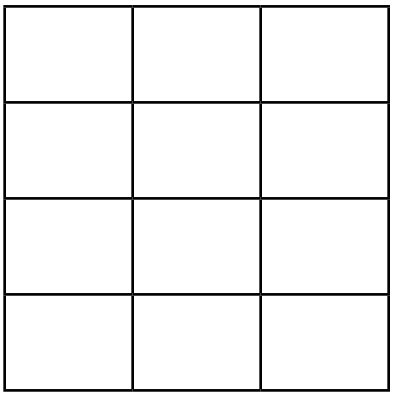


3. $\frac{1}{2} \times \frac{2}{3} = \frac{}{6}$

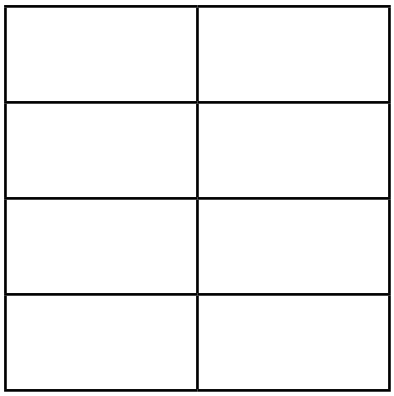


Use Fraction Squares to model the multiplication problem. Then shade in the picture to match. Write the product.

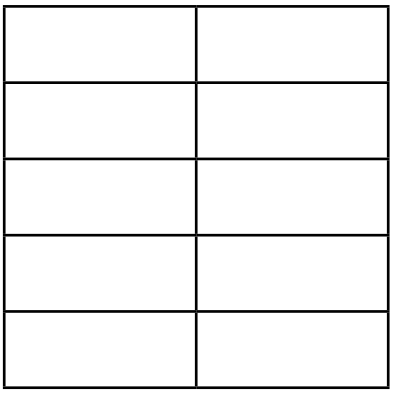
4. $\frac{3}{4} \times \frac{1}{3} =$ _____



5. $\frac{2}{4} \times \frac{1}{2} =$ _____



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



Multiply the fractions. Write the product.

7. $\frac{1}{2} \times \frac{3}{5} = \frac{}{10}$

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

9. $\frac{1}{3} \times \frac{3}{4} =$ _____ = _____

10. $\frac{2}{5} \times \frac{1}{2} =$ _____ = _____

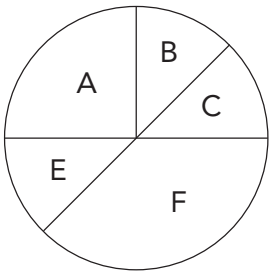
11. $\frac{3}{6} \times \frac{1}{2} =$ _____ = _____

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

Name _____

4

The circle graph below shows the sales of the various car models at Bart's Auto Sales for the month of April. Altogether 400 cars were sold.



About how many of the 400 cars sold were Model F?

Lesson 4 **Multiplication in Action**

Name _____

Try This

- Write a number sentence for each problem.
- Use Fraction Circles, Fraction Squares, or Fraction Towers if needed.
- Write the answer in simplest form.

1. Gordon's backyard is $\frac{3}{4}$ acre. He planted flowers in $\frac{1}{6}$ of the yard. What fraction of an acre is planted in flowers?

_____

2. Jenna had $\frac{1}{3}$ of a dozen eggs. She used $\frac{1}{2}$ of them to bake a cake. What part of a dozen did she use?

_____

How many eggs did she use?

_____

3. Martin is making 4 milkshakes. If the recipe calls for $\frac{2}{3}$ cup of milk per shake, how many cups of milk does he need?

_____

4. The length of a certain lizard is $\frac{7}{8}$ inch. What is the length of the tail if it is half of the lizard's total length?

_____

5. The length of one side of an equilateral triangle is $\frac{3}{4}$ foot long. What is the perimeter of the triangle?

_____

6. Hillary exercises Monday through Friday for $\frac{5}{6}$ hour per day. How many hours does she exercise per week?

_____

7. If you make 4 jumps of $\frac{1}{6}$ on a number line, at what fraction do you stop on the number line?

_____

8. What are the perimeter and the area of a rectangle that is $\frac{3}{4}$ yard long and $\frac{1}{3}$ yard wide?

_____

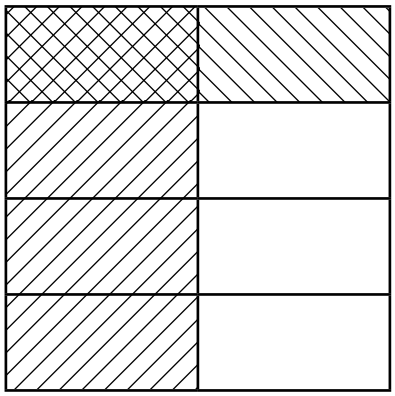
_____

Name _____

Build the model to help you solve the problem. Fill in the number sentence.

1. Blanca's flower beds are $\frac{1}{4}$ acre. She planted roses in $\frac{1}{2}$ of the beds. What fraction of an acre is roses?

_____ × _____ = _____ acre



Build a model to help you solve the problem. Sketch your model. Fill in the number sentence.

2. Bill has some pieces of wire that are each $\frac{2}{3}$ yard long. He connected 4 of the pieces end-to-end. How long is the wire he made with the 4 pieces?

_____ × _____ = _____ yards

Solve each problem. Write the number sentence.

3. The length of a side of a square is $\frac{1}{10}$ meter. What is the perimeter of the square?

_____ × _____ = _____ meter

4. The length of one side of an equilateral triangle is $\frac{3}{4}$ foot. What is the perimeter of the triangle?

_____ × _____ = _____ feet

5. Jerome has a board that is $\frac{9}{10}$ meter long. How long would $\frac{1}{2}$ the board be?

_____ meter

6. Lorenzo skated for $\frac{3}{4}$ hour each day for five days. How long did he skate?

_____ hours

Name _____

5

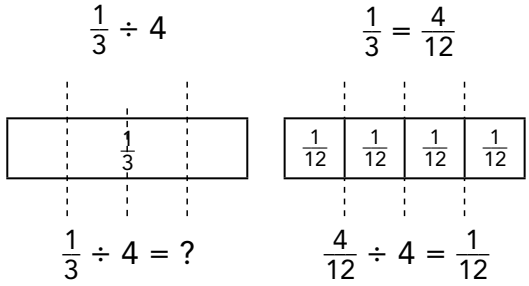
Shade half of a half of a half of this rectangle.

Lesson 5 **Divvy Up Towers**

Name _____

Try This

- Use Fraction Towers to divide.
- Replace the tower model with an equivalent model as needed.
- Draw a picture of the dividing process.
- Write the quotient in simplest form.
- Answer problems 6–8 without using models.



1. $\frac{1}{5} \div 2 =$ _____

2. $\frac{1}{2} \div 5 =$ _____

3. $\frac{1}{4} \div 2 =$ _____

4. $\frac{1}{2} \div 3 =$ _____

5. $\frac{1}{4} \div 3 =$ _____

6. $\frac{1}{3} \div 3 =$ _____

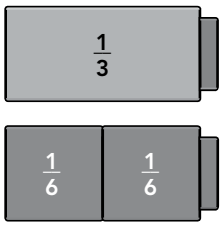
7. $\frac{1}{5} \div 3 =$ _____

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

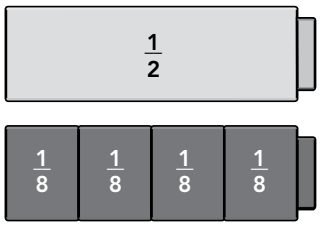
Name _____

Use Fraction Towers to build the model. Write the quotient.

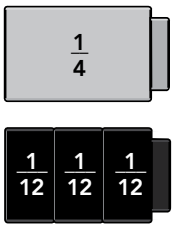
1. $\frac{1}{3} \div 2 =$ _____



2. $\frac{1}{2} \div 4 =$ _____

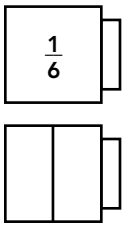


3. $\frac{1}{4} \div 3 =$ _____

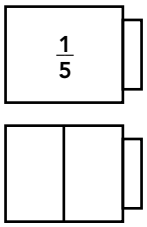


Use Fraction Towers to model the quotient. Then label and shade the drawing. Write the quotient.

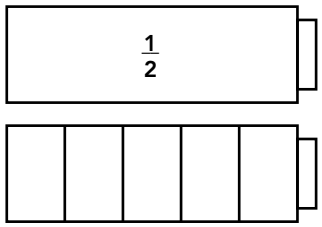
4. $\frac{1}{6} \div 2 =$ _____



5. $\frac{1}{5} \div 2 =$ _____



6. $\frac{1}{2} \div 5 =$ _____



Find each quotient.

7. $\frac{1}{8} \div 2 =$ _____

8. $\frac{1}{3} \div 5 =$ _____

9. $\frac{1}{2} \div 8 =$ _____

10. $\frac{1}{5} \div 3 =$ _____

11. $\frac{1}{6} \div 4 =$ _____

12. $\frac{1}{4} \div 4 =$ _____

Name _____

6

Wilbur takes 20 steps to get from A to B.

Alice's stride is half as long as Wilbur's.

a. How many steps does Alice take to get from A to B?

b. A pace equals 2 steps. How many paces does Alice take to get from A to B?

Lesson 6

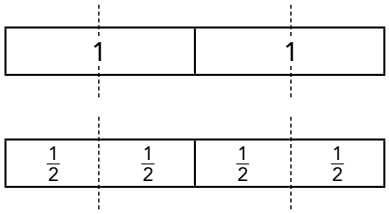
Divide by a Fraction

Name _____

Try This

- Use Fraction Towers to model the problem.
- Draw your model.
- Write the quotient.

$2 \div \frac{1}{2} = ?$



$2 \div \frac{1}{2} = 4$

1. $2 \div \frac{1}{8} =$ _____

2. $1 \div \frac{1}{2} =$ _____

3. $2 \div \frac{1}{6} =$ _____

4. $2 \div \frac{1}{5} =$ _____

5. $1 \div \frac{1}{3} =$ _____

6. $2 \div \frac{1}{4} =$ _____

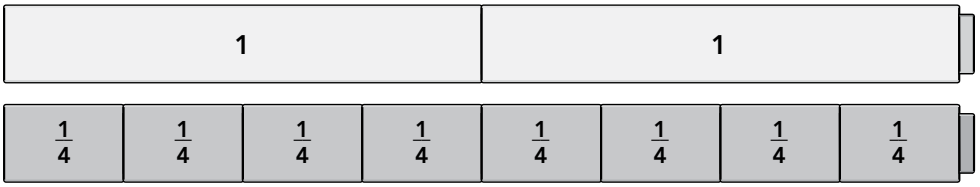
7. $3 \div \frac{1}{4} =$ _____

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

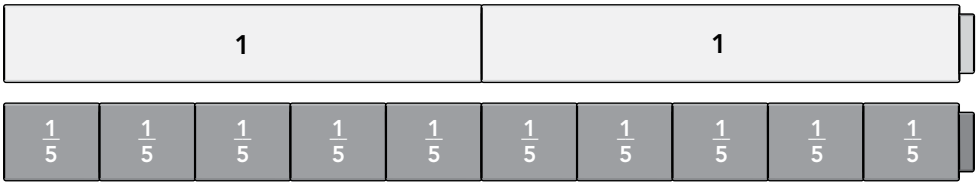
Name _____

Use Fraction Towers to build the model. Write the quotient.

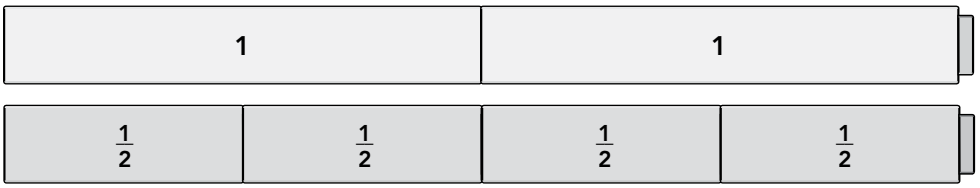
1. $2 \div \frac{1}{4} =$ _____



2. $2 \div \frac{1}{5} =$ _____

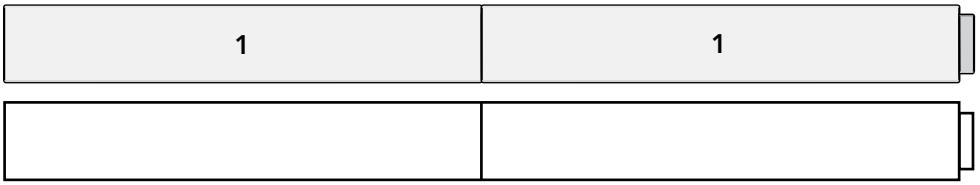


3. $2 \div \frac{1}{2} =$ _____

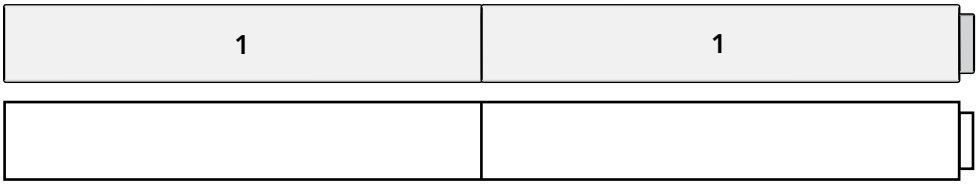


Use Fraction Towers to model the problem. Complete the drawing of the model. Write the quotient.

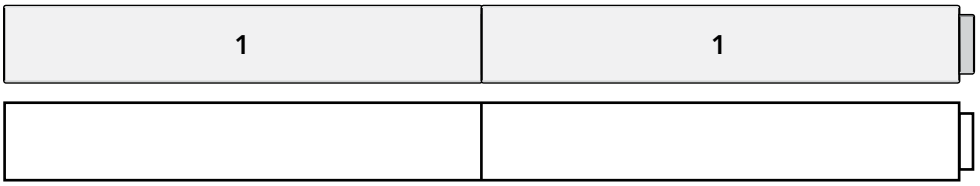
4. $2 \div \frac{1}{8} =$ _____



5. $2 \div \frac{1}{3} =$ _____



6. $2 \div \frac{1}{6} =$ _____



Find each quotient.

7. $2 \div \frac{1}{8} =$ _____

8. $3 \div \frac{1}{4} =$ _____

9. $3 \div \frac{1}{6} =$ _____

10. $1 \div \frac{1}{5} =$ _____

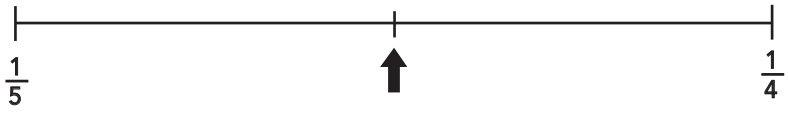
11. $2 \div \frac{1}{10} =$ _____

12. $1 \div \frac{1}{12} =$ _____

Name _____

7

What number does the arrow point to?



A) $\frac{9}{40}$ B) $\frac{2}{9}$ C) $\frac{1}{9}$ D) $\frac{1}{20}$

Lesson 7 **Division in Action**

Name _____

Try This

- Write a number sentence that represents the problem.
- Use Fraction Circles, Fraction Squares, or Fraction Towers.
- Show or sketch your work. Write the answer in simplest form.

1. Remy has 2 feet of string. How many $\frac{1}{3}$-foot pieces can she make?

_____

2. Louisa hiked 4 miles. Each day she hiked $\frac{1}{3}$ mile. How many days did she hike?

_____

3. Jeremy has $\frac{1}{3}$ cup of sand. He divides the sand equally into 4 piles. How much sand is in each pile?

_____

4. A square has a perimeter of $\frac{1}{2}$ meter. How long is each side?

_____

5. Roma has 2 cups of yogurt. Each serving is $\frac{1}{4}$ cup. How many servings are there?

_____

6. Jon's relay team ran 2 miles. Each person ran $\frac{1}{2}$ mile. How many people are on Jon's team?

_____

7. Devon had $\frac{1}{5}$ of a package of granola. She divided it equally between 2 people. How much granola did each person get?

_____

8. Maurice divided $\frac{1}{6}$ ounce of orange flavoring between 2 recipes. How much orange flavoring was in each recipe?

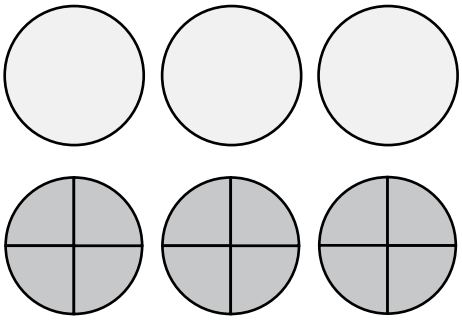
_____

Name _____

Use Fraction Circles to model each problem. Fill in the number sentence.

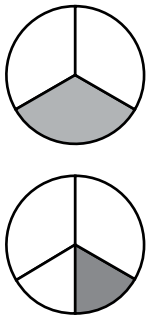
1. Rachel baked 3 pizzas and cut them into equal-sized slices. If each slice is $\frac{1}{4}$ of a pizza, how many slices are there?

_____ ÷ _____ = _____



2. Jalisa has $\frac{1}{3}$ cup of milk. If the milk is divided for 2 recipes, how much milk is there for each recipe?

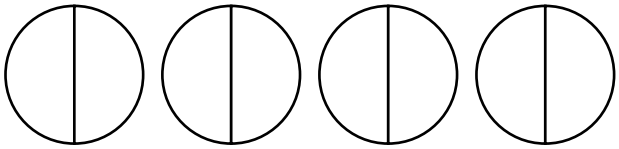
_____ ÷ _____ = _____



Use Fraction Circles to model each problem. Write a division number sentence.

3. Olivia runs 4 miles. Each day she runs $\frac{1}{2}$ mile. How many days did she run?

_____



4. Raj has a wire $\frac{1}{3}$ yard long. He cuts it into 4 equal pieces. How long is each piece?

_____

Write the number sentence and solve.

5. How long is the side of a square if its perimeter is $\frac{1}{2}$ mile?

_____

6. The perimeter of an equilateral triangle is $\frac{1}{4}$ inch. What is the length of each side?

_____

7. Judy is baking cookies. She plans to give $\frac{1}{2}$ of a cookie to each of her friends. If Judy bakes 6 cookies, how many of her friends will get a treat?

_____