

2.2

Dividing Fractions

For use with Activity 2.2

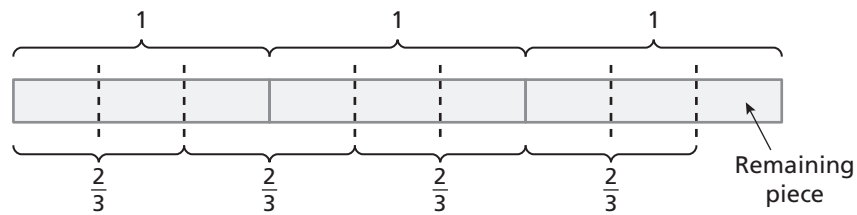
Essential Question How can you divide by a fraction?

1 ACTIVITY: Dividing by a Fraction

Work with a partner. Write the division problem and solve it using a model.

a. How many two-thirds are in three?

The division problem is _____.



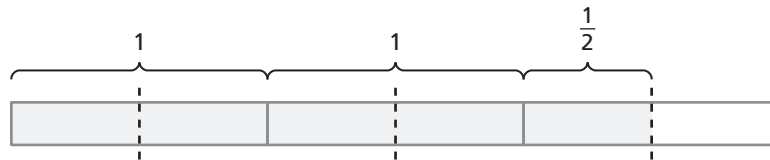
How many groups of $\frac{2}{3}$ are in 3? _____

The remaining piece represents _____ of $\frac{2}{3}$.

So, there are _____ groups of $\frac{2}{3}$ in 3.

So, _____ \div _____ = _____.

b. How many halves are in five halves?



c. How many four-fifths are in eight?

2.2 Dividing Fractions (continued)

d. How many one-thirds are in seven halves?

e. How many three-fourths are in five halves?

2 **ACTIVITY:** Using Tables to Recognize a Pattern

Work with a partner.

a. Complete each table.

Division Table

$8 \div 16$	
$8 \div 8$	
$8 \div 4$	
$8 \div 2$	
$8 \div 1$	
$8 \div \frac{1}{2}$	
$8 \div \frac{1}{4}$	
$8 \div \frac{1}{8}$	

Multiplication Table

$8 \times \frac{1}{16}$	
$8 \times \frac{1}{8}$	
$8 \times \frac{1}{4}$	
$8 \times \frac{1}{2}$	
8×1	
8×2	
8×4	
8×8	

2.2 Dividing Fractions (continued)

- b. Describe the relationship between the numbers in the right column of the division table and the numbers in the right column of the multiplication table.
- c. Describe the relationship between the shaded numbers in the division table and the shaded numbers in the multiplication table.
- d. **STRUCTURE** Make a conjecture about how you can use multiplication to divide by a fraction.
- e. Test your conjecture using the problems in Activity 1.

What Is Your Answer?

3. **IN YOUR OWN WORDS** How can you divide by a fraction? Give an example.
4. How many halves are in a fourth? Explain how you found your answer.