Fractions of a Whole

Home Link 5-1

NAME DATE TIME

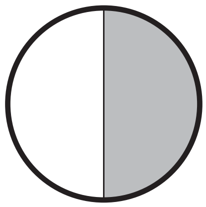
Family Note Today your child worked with fraction circle pieces to explore fractions as equal parts of wholes. Children covered fraction circle pieces with equal parts and described the parts using fraction words such as *1-third.* Standard notation for fractions, such as $\frac{1}{3}$, will be introduced in the next lesson. As your child works on this activity, discuss the fraction names of the equal parts in each problem.

Please return this Home Link to school tomorrow.

Write fraction words to describe the shaded part.

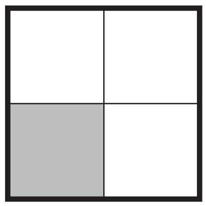
SRB 132-133

1. The circle is the whole.



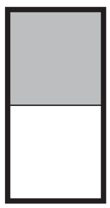
A fraction that names the shaded part is ______________.

2. The square is the whole.



A fraction that names the shaded part is ______________.

3. The rectangle is the whole.



A fraction that names the shaded part is ______________.

Practice

Fill in the unit box. Solve these problems mentally, or use counting-up, expand-and-trade, or trade-first subtraction.

Unit

4. _______ = 326 – 291

5. _______ = 391 – 226

Representing Fractions

Home Link 5-2

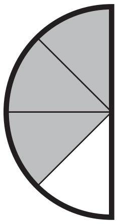
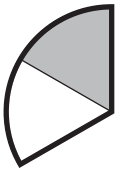
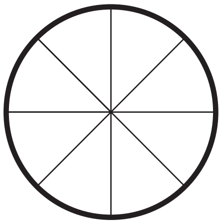
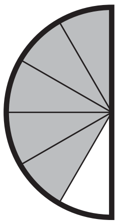
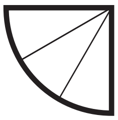
NAME DATE TIME

Family Note Today your child learned how to represent fractions in words, in standard notation ($\frac{1}{2}$, $\frac{3}{4}$, and so on), and with drawings. For each of the problems below, the whole is a different shape. Help your child relate each fraction representation to the number of equal-size parts each whole is divided into and the number of shaded equal parts.

Please return this Home Link to school tomorrow.

Complete the table.

SRB 134-136

Picture	Words	Number
Example: 	three-fourths or 3-fourths	$\frac{3}{4}$
1. 		
2. 	three-eighths	
3. 		
4. 		$\frac{2}{3}$

Equivalent Fractions

Home Link 5-3

NAME DATE TIME

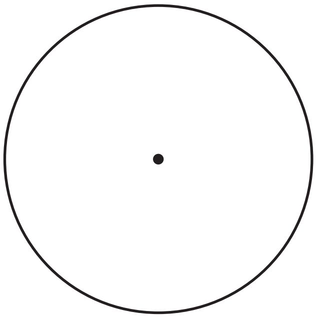
Family Note Today your child continued working with fractions by finding different fractions that name the same amount of the whole, or equivalent fractions. Children identify equivalent fractions by looking at the shaded area of a figure compared to the shaded area of another same-size figure.

Please return this Home Link to school tomorrow.

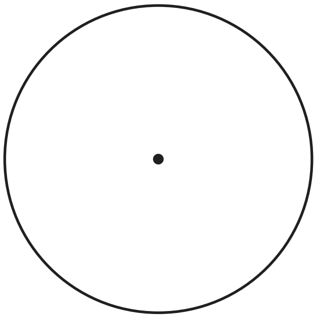
SRB 150

The pictures show three kinds of fruit pie. Use a straightedge to do the following:

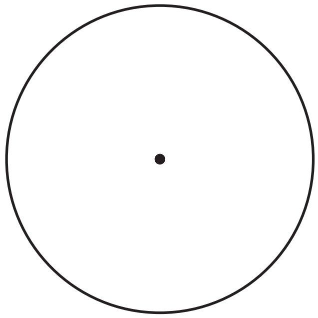
1. Divide the peach pie into 4 equal pieces. Shade 2 of the pieces.
2. Divide the blueberry pie into 6 equal pieces. Shade 3 of the pieces.
3. Divide the strawberry pie into 8 equal pieces. Shade 4 of the pieces.



peach pie



blueberry pie



strawberry pie

What fraction of each pie did you shade?

4. I shaded _______ of the peach pie.
   Write another name for this fraction: _______
5. I shaded _______ of the blueberry pie.
   Write another name for this fraction: _______
6. I shaded _______ of the strawberry pie.
   Write another name for this fraction: _______

Explain to someone at home how you know that all of the fractions on this page are equivalent.

Identifying Helper Facts

Home Link 5-4

NAME DATE TIME

Family Note Today your child practiced identifying and using helper facts to solve unknown multiplication facts by adding or subtracting a group. For example, children added a group to "helper" 2s and 5s facts to solve 3s and 6s facts. They subtracted a group from "helper" 5s and 10s facts to solve 4s and 9s facts. Practice with efficient fact strategies such as these helps children become fluent with all multiplication facts.

Please return this Home Link to school tomorrow.

SRB 44, 47-48

For each fact below:

- Think of a helper fact.
- Add or subtract a group from the product of the helper fact.
- Solve the fact.

Example: $6 \times 7 = ?$

Helper fact: $5 \times 7 = 35$

How I can use it: I can add one more group of 7 to 35 to get 35 + 7 = 42.

$6 \times 7 =$ 42

① $3 \times 8 = ?$

Helper fact: ______________

How I can use it: ______________

____

$3 \times 8 =$ ______

② $9 \times 7 = ?$

Helper fact: ______________

How I can use it: ______________

____

$9 \times 7 =$ ______

Doubling, Part 1

Home Link 5-5

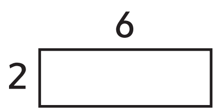
NAME DATE TIME

Family Note Doubling (adding a number to itself or multiplying a number by 2) can be used as a strategy to solve facts with a "double" as a factor, such as the 4s, 6s, and 8s facts. For example, your child used doubling with the helper fact 2×7 to figure out 4×7 ($2 \times 7 = 14$ and $14 + 14 = 28$, so $4 \times 7 = 28$). Doubling the area of a rectangle can help children see and model the doubling fact strategy. Encourage your child to use drawings to solve the problem below.

Please return this Home Link to school tomorrow.

SRB 49

Maria wants to figure out $4 \times 6 = ?$.
She notices that 4 is the double of 2.
Help Maria use 2×6 to solve 4×6.
Maria starts by sketching a 2-by-6 rectangle. Add to Maria's picture to show how she could use doubling to find the answer to 4×6. Record your thinking below.



$2 \times 6 =$ ________

$4 \times 6 =$ ________

How I figured it out: ____

____

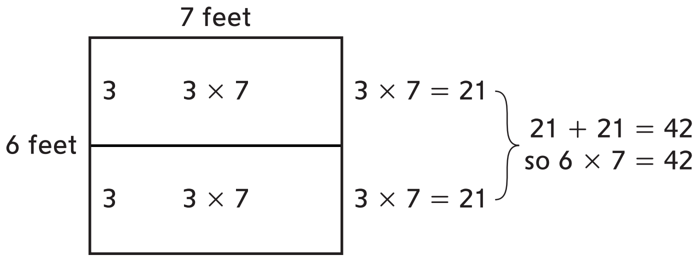
____

Doubling, Part 2

Home Link 5-6

NAME DATE TIME

Family Note Today your child continued to work on the doubling facts strategy with facts that have even factors. Your child broke apart an even factor into two identical factors and used the resulting helper fact to derive the final product. For example, 6×7 can be broken into 3×7 and 3×7, making the total easier to find:



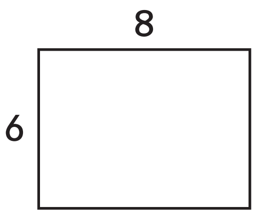
Please return this Home Link to school tomorrow.

Show how you can solve 8×6 using doubling.

SRB 49

Factor I will split in half: _______

Sketch:



$8 \times 6 =$ _______

What helper fact did you double to solve 8×6?

____

Patterns in Products

Home Link 5-7

NAME DATE TIME

Family Note Today your child used number grids and the Multiplication/Division Facts Table to explore patterns in multiples of 5s, 9s, and 10s, as well as in products of even and odd numbers. Recognizing and making sense of patterns is an important part of mathematics. Understanding the patterns in these products will also help your child become more fluent with multiplication facts.

Please return this Home Link to school tomorrow.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

1. Circle the products of 10×1, 10×2, 10×3, 10×4, and 10×5.
2. Shade the products of 9×1, 9×2, 9×3, 9×4, and 9×5.
3. Explain why the pattern for the products of 10s facts is a straight column.

____

____

____

4. Explain why the pattern for the products of 9s facts is a diagonal.
Hint: Think of how it compares to the products of the 10s facts pattern.

____

____

____

Finding Missing Factors

Home Link 5-8

NAME DATE TIME

Family Note Today your child played the game *Salute!* to practice finding missing factors. Determining missing factors in multiplication equations can help children develop fluency with multiplication and division. Help your child use the given factor and product to determine the missing factor in each problem below. For example, in Round 1 have your child think: *5 times what number is 25?*

If you want to play *Salute!* with your child, the directions are on *Student Reference Book*, page 255. Use a regular deck of playing cards. Remove all face cards and jokers. The aces are 1s.

Please return this Home Link to school tomorrow.

Write the missing factors for the rounds of *Salute!*

SRB 255

	Player 1	Player 2	Dealer says the product is:
Round 1:	5		25
Round 2:		2	12
Round 3:		6	24
Round 4:	5		30

Explain how you found the missing factor for one of the rounds.

Near Squares

Home Link 5-9

NAME DATE TIME

Family Note Today your child learned to use familiar multiplication squares, such as $3 \times 3 = 9$ and $8 \times 8 = 64$, to figure out near-squares facts by adding or subtracting groups. For example, the square $8 \times 8 = 64$ can be used as a helper fact for the near square 7×8. By subtracting one group of 8 from 64, children find that $7 \times 8 = 56$. Using squares as helper facts is one more strategy in your child's growing library of multiplication facts strategies.

Please return this Home Link to school tomorrow.

SRB 50

Example: $4 \times 3 = ?$

Square helper fact: $3 \times 3 = 9$

Near square: $4 \times 3 = 12$

× × ×
× × ×
× × ×
○ ○ ○

How I solved it: *I added a group of 3 to find 4 × 3.*

1. Solve the multiplication squares.

   $5 \times 5 =$ ______　　　　$6 \times 6 =$ ______

2. Choose one of the squares facts from Problem 1. Write a near square and use your square to help solve the near square. Show your work.

   Square helper fact: ______ × ______ = ______

   Near square: ______ × ______ = ______

   How I solved it: ______________________________

   ____

Making Sense of a Problem

Home Link 5-10

NAME DATE TIME

Family Note Today your child solved a challenging number story. To solve it, your child had to make sense of the information in the problem. If your child has trouble getting started on the problems below, ask: *What does the problem tell you? What do you need to find out?* Encourage your child to draw a picture to show what he or she understands about each problem.

Please return this Home Link to school tomorrow.

SRB 30

1. Danika lives 5 blocks from her school. If she walks to and from school 5 days each week, how many blocks does she walk in one week?

   ______________ (unit)

2. It costs \$5 to join the art club. The club has collected \$70 from new members. The club's goal is to collect \$100. How many more members does the club need to meet its goal?

   ______________ (unit)

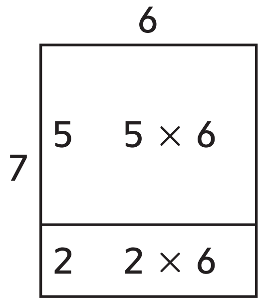
The Break-Apart Strategy

Home Link 5-11

NAME DATE TIME

Family Note Today your child learned how to break apart one number in a multiplication fact in order to make two helper facts that are easier to solve. Using areas of rectangles helps to illustrate this, as in the example below.

- $7 \times 6 = ?$
- Break apart the 7 into 5 and 2.
- There are two helper facts: 5×6 and 2×6.
- So $7 \times 6 = 5 \times 6 + 2 \times 6$
  $7 \times 6 = 30 + 12$
  $7 \times 6 = 42$



Please return this Home Link to school tomorrow.

SRB 51

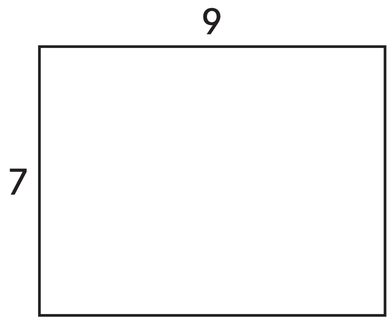
Show one way you can solve $7 \times 9 = ?$.

I will break apart the factor ____ into ____ and ____.

Helper facts that match the areas of the smaller rectangles:

_______ × _______ = _______ and _______ × _______ = _______

Drawing:



Write a number model using your helper facts:

$7 \times 9 =$ _______ × _______ + _______ × _______

$7 \times 9 =$ _______