

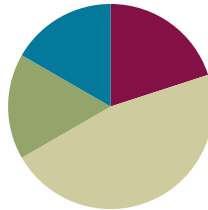
## Lesson 3

**Objective:** Specify and partition a whole into equal parts, identifying and counting unit fractions by drawing pictorial area models.

**Related Topics:** [More Lesson Plans for the Common Core Math](#)

### Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(10 minutes)
■ Concept Development	(28 minutes)
■ Student Debrief	(10 minutes)
<b>Total Time</b>	<b>(60 minutes)</b>



### Fluency Practice (12 minutes)

- Multiply by Six **3.OA.4** (10 minutes)
- Skip Counting **3.OA.4** (2 minutes)

### Multiply by Six (10 minutes)

Materials: (S) Multiply by Six Sprint

### Skip Counting (2 minutes)

Skip count forward and backward by sevens, eights, and nines without exceeding ten multiples of each number.



#### NOTES ON SPRINT AND SKIP COUNTING:

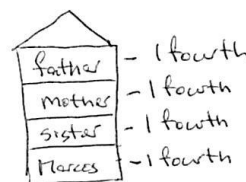
Modify the routine to be finished with both drills within 12 minutes.

Consider counting by sevens, eights, or nines during the exercise stage of the Sprint routine.

### Application Problem (10 minutes)

MP.2

Marcos has a 1-liter container of milk he is going to share with his mother, father, and sister at dinner. Draw a picture to show how Marcos must share the container of milk so that all 4 of them get the same amount of milk. What fraction of the milk does each person get?



Each person gets 1 fourth of the milk.

**Concept Development (28 minutes)**

Materials: (T) Rectangular and circle-shaped papers (S)  
Personal white boards, marker for each student

T: I have a rectangle. I want to split it into 4 equal units.

Fold the paper so that the parts are not the same size. Then open it up to draw the lines where it was folded, and show the class. Invite the students to notice the inequality of the parts.

T: Let me try again. (Fold it equally into 4 equal parts.)

T: How many total units did I split the whole into?

S: 4.

T: What is each fractional unit called?

S: 1 fourth or 1 quarter.

T: I'm going to shade in 3 copies of 1 fourth. (Shade in 3 units.) What fraction is shaded?

S: 3 fourths are shaded.

T: Let's count them.

S: 1 fourth, 2 fourths, 3 fourths.

T: I have a circle. I want to split it into 2 equal parts.

Fold the paper so that the parts are not the same size. Then open it up to draw the lines where it was folded, and show the class. Again, invite the students to notice and analyze the inequality of the parts.

T: Let me try again. (Fold it into 2 equal parts.)

T: How many total units did I split the whole into?

S: 2.

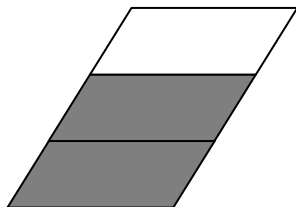
T: Good. What's the fractional unit called?

S: 1 half.

T: I'm going to shade in 1 unit. (Shade in 1 unit.) What fraction is shaded?

S: 1 half is shaded.

Having established the meaning of equal parts, proceed to briskly analyze the following shapes possibly using the brief sequence of questions mapped out with Shape 1:

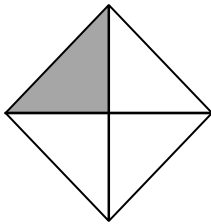
**Shape 1:**

**NOTES ON  
MULTIPLE MEANS OF  
ENGAGEMENT:**

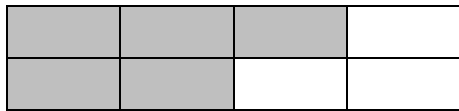
Increase your wait time for responses from ELLs and record student responses of the unit fraction and shaded amount on the board beside the model.

- T: How many fractional units are there in all?  
 S: 3.  
 T: What's each unit called?  
 S: 1 third.  
 T: How many units are shaded?  
 S: 2 thirds.  
 T: Count them.  
 S: 1 third, 2 thirds.

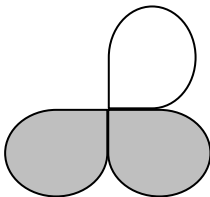
Shape 2:



Shape 3:



Shape 4:



Repeat the steps and procedures with other shapes. Use more or fewer examples as needed.

- T: Now take out your white board, and we'll try to draw a few shapes and split them equally into smaller units.  
 T: Draw a rectangle and show a third. (Circulate while students draw.)  
 T: How many units do we have altogether?  
 S: 3.  
 T: Shade in 1 unit. (Circulate while students draw.) What fraction is shaded?



**NOTES ON  
 MULTIPLE MEANS OF  
 ACTION AND  
 EXPRESSION:**

Some students may benefit from manipulating concrete models simultaneously as they work on the pictorial level.



**NOTES ON  
 MULTIPLE MEANS OF  
 ENGAGEMENT:**

Open-ended activities, such as partitioning a whole into student-chosen fractional units, challenge above grade level students.

S: 1 third.

Select a couple student drawings to show the class.

Repeat sequence to have students show 2 sixths of a square, 3 fourths of a line segment, and other examples as needed.

### Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students solve these problems using the RDW approach used for Application Problems.

### Student Debrief (10 minutes)

**Lesson Objective:** Specify and partition a whole into equal parts, identifying and counting unit fractions by drawing pictorial area models.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.


Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

You may choose to use any combination of the questions below to lead the discussion.

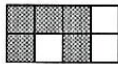
- What is the same and different about these two problems?
- What is the same and different about fair shares of a jug of milk and fair shares of a candy bar? (Though a fraction of a jug of milk and a fraction of a candy bar is clearly different, we might draw each of them by drawing a rectangle.)
- How can drawing fourths help you to draw fifths well?

Name: Gina Date: 3/3


1. Each shape is a whole divided into equal parts. Name the shaded fractional unit and then count and tell how many of those units are shaded. The first one is done for you.




The unit is 1 fourth  
2 fourths are shaded.



The unit is 1 eighth  
5 eighths are shaded.








The unit is 1 third  
2 thirds are shaded.



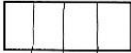
The unit is 1 half  
1 half is shaded.

2. Circle the shapes that are divided into equal parts. Write a sentence telling what "equal parts" means.








Equal parts means that the pieces are the same size and the same shape.


3. Each shape is 1 whole. Estimate to divide each into 4 equal parts. Name the fractional unit below.



1 fourth




1 fourth



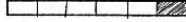
1 fourth

4. Each shape is 1 whole. Divide and shade to show a fractional unit of:


A half



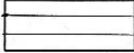
A sixth




A third



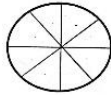
5. Each shape is 1 whole. Estimate to divide each into equal parts (do not draw fourths). Divide each whole using a different fractional unit. Write the name of the fractional unit on the line below the shape.



1 third

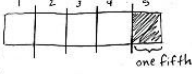


1 eighth



1 eighth

6. Charlotte wanted to equally share a candy bar with her 4 other friends. Draw Charlotte's candy bar. Show how she can divide her candy bar so that Charlotte and her 4 friends each get an equal share. What fraction of the candy bar does each girl receive?



1 Candy bar

Each girl receives one fifth.

**Exit Ticket (3 minutes)**

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help you assess the students' understanding of the concepts that were presented in the lesson today and plan more effectively for future lessons. You may read the questions aloud to the students.

**A**

# Correct \_\_\_\_\_

Multiply.

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

**B** Improvement \_\_\_\_\_ # Correct \_\_\_\_\_

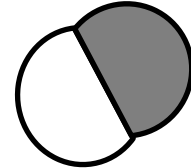
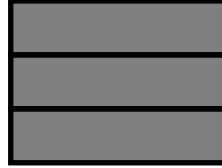
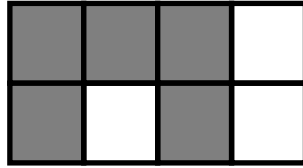
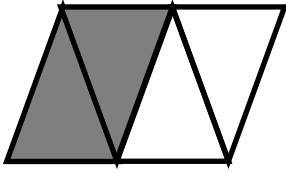
Multiply.

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

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Each shape is a whole divided into equal parts. Name the fractional unit and then count and tell how many of those units are shaded. The first one is done for you.



The unit is 1 fourth.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

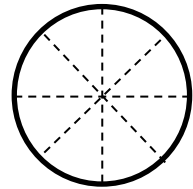
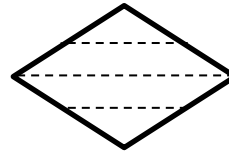
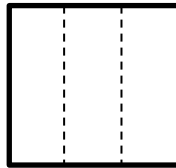
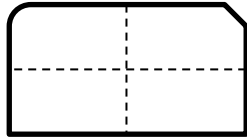
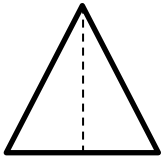
2 fourths are shaded.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

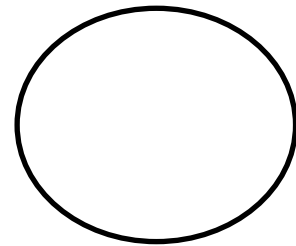
2. Circle the shapes that are divided into equal parts. Write a sentence telling what “equal parts” means.



\_\_\_\_\_

\_\_\_\_\_

3. Each shape is 1 whole. Estimate to divide each into 4 equal parts. Name the fractional unit below.



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



4. Each shape is 1 whole. Divide and shade to show a fractional unit of:

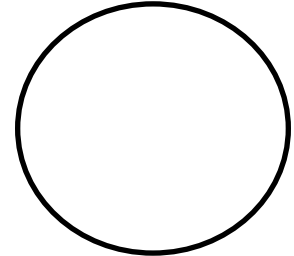
A half



A sixth



A third



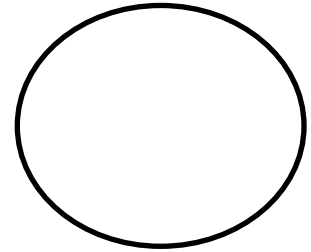
5. Each shape is 1 whole. Estimate to divide each into equal parts (Do not draw fourths.). Divide each whole using a different fractional unit. Write the name of the fractional unit on the line below the shape.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

6. Charlotte wanted to equally share a candy bar with her 4 other friends. Draw Charlotte’s candy bar. Show how she can divide her candy bar so that Charlotte and her 4 friends each get an equal share. What fraction of the candy bar does each girl receive?

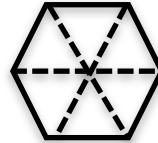
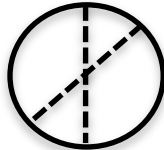
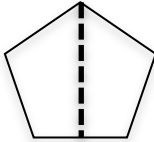
Each girl receives \_\_\_\_\_.

Name \_\_\_\_\_

Date \_\_\_\_\_

1.  \_\_\_\_\_ sevenths are shaded.

2. Circle the shapes that are divided into equal parts.



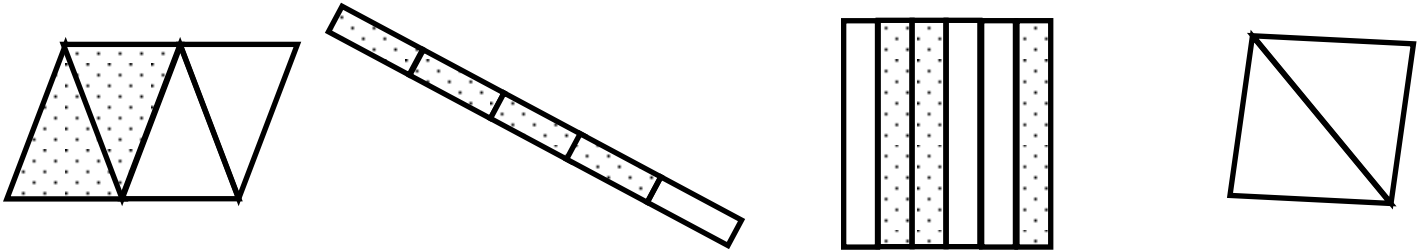
3. Steven wants to equally share his pizza with his 3 sisters. What fraction of the pizza do he and each sister receive?

He and each sister receive \_\_\_\_\_.

Name \_\_\_\_\_

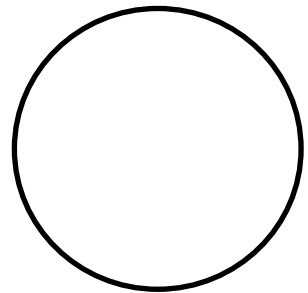
Date \_\_\_\_\_

1. Each shape is a whole divided into equal parts. Name the fractional unit and then count and tell how many of those units are shaded. The first one is done for you.



The unit is 1 fourth. \_\_\_\_\_  
 2 fourths are shaded. \_\_\_\_\_

2. Each shape is 1 whole. Estimate to divide each into equal parts. Divide each whole using a different fractional unit. Write the name of the fractional unit on the line below the shape.



\_\_\_\_\_

3. An artist wants to draw a calendar on one sheet of paper to show each month of the year. Draw the artist's calendar. Show how he can divide his calendar so that each month is given the same space. What fraction of the calendar bar does each month receive?

Each month receives \_\_\_\_\_.