

Assessment: Halves and Fourths

Math Focus Points

- ◆ Partitioning a whole into equal parts and naming them with fractions
- ◆ Exploring the idea that when you cut a whole into more fractional pieces, the pieces are smaller

Today's Plan		Materials
1 <small>ACTIVITY</small> Designing More Rugs, <i>continued</i>	 30 MIN  INDIVIDUALS	<ul style="list-style-type: none"> • Materials from Session 3A.3, p. CC49
2 <small>ASSESSMENT ACTIVITY</small> Halves and Fourths	  20 MIN  INDIVIDUALS	<ul style="list-style-type: none"> • C40, Assessment: Halves and Fourths Make copies. (1 per student)
3 <small>DISCUSSION</small> Which Is More?	 10 MIN  CLASS	<ul style="list-style-type: none"> • Transparency of Shapes 4 and 5 from C22 (from Session 3A.1) • Transparency of Shapes 2 and 4 from C30 (from Session 3A.2)
4 <small>SESSION FOLLOW-UP</small> Daily Practice		<ul style="list-style-type: none"> • <i>Student Activity Book</i>, p. 37 or C41, Identifying Halves and Fourths Make copies. (as needed)

Classroom Routines

Quick Images with Shapes Show a transparency of Shape 4 from *More Shapes for Quick Images* (C30; from Session 3A.2). Follow the basic *Quick Images* activity. Repeat the activity with Shape 7 and Shape 8. For Shape 7 and Shape 8, note how students describe the shaded and unshaded parts.

1 ACTIVITY

Designing More Rugs, *continued*



Students continue designing rugs following the procedure described in Session 3A.3 (pages CC52–CC53).

Designate spaces for students to cut out and post their favorite rugs. Have one area for circles, another for rectangles, and one for each kind of square rug (e.g., square quarters, rectangular quarters, and triangular quarters).

2 ASSESSMENT ACTIVITY

Halves and Fourths



To assess students' understanding of halves and fourths, have them complete Assessment: Halves and Fourths (C40). In this assessment, students partition a circle into halves, color one fourth of a square, and they determine which shapes are and are not divided into halves or fourths. 1 Students who finish early can design additional rugs.

ONGOING ASSESSMENT: Observing Students at Work

Students solve problems about halves or fourths.

- **How do students partition a circle into two equal parts?**
Do they accurately color one quarter of the given square? Do they circle only the shapes that are accurately divided into halves or fourths?

3 DISCUSSION

Which Is More?



Math Focus Points for Discussion

- ◆ Partitioning a whole into equal parts and naming them with fractions
- ◆ Exploring the idea that when you cut a whole into more fractional pieces, the pieces are smaller

We've been talking a lot about halves and fourths. Today, we are going to compare halves and fourths.

Professional Development

1 Teacher Note: Assessment: Halves and Fourths, p. CC57

Name _____ Date _____

Assessment: Halves and Fourths

1. Draw a line that cuts the circle in half.



2. Circle the rugs that show halves.



3. Color one quarter of the square.



4. Circle the rugs that show fourths.



Unit 5 Session 3A.4 C40 © Pearson Education, Inc., or its affiliates. All Rights Reserved. 1

▲ Resource Masters, C40

Name _____ Date _____

Fish Lengths and Animal Jumps

Daily Practice

Identifying Halves and Fourths

NOTE: Students identify halves and fourths.

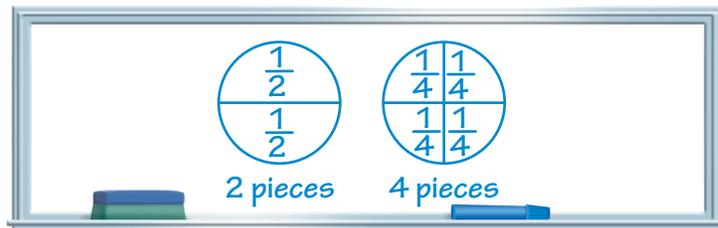
1. Circle the figures that show **halves**.

2. Circle the figures that show **fourths**.

© Harcourt Learning Technology, Inc. Session 3A.4 Unit 5 37

▲ Student Activity Book, Unit 5, p. 37; Resource Masters, C41

Show students Shapes 4 and 5 from Shapes for Quick Images (C22; from Session 3A.1), emphasizing that the circles are the same size. Make sure students agree that the first is divided into halves, the second into fourths. As you discuss the shapes, write “2 pieces” below the first and label the halves “ $\frac{1}{2}$.” Follow a similar procedure with the shape divided into fourths.



I want you to imagine that these circles represent your *favorite* kind of pizza. Would you rather have one half or one fourth? Why?

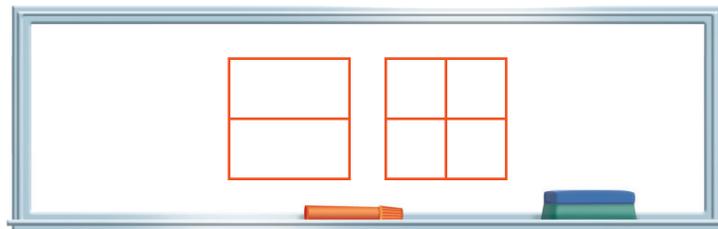
Discuss students’ ideas.

[Neil] said he’d rather have one half, because then he’d get more. [Sacha] said she’d want half, too, because the pieces are bigger.

Some students may think fourths are larger than halves because 4 is more than 2. You might challenge students with questions like:

- This circle is cut into two pieces, and this circle is cut into four pieces. Isn’t 4 more than 2? Why does everyone want half of the pizza instead of a fourth of the pizza?

Discuss students’ ideas. Then, have the same discussion about Shapes 2 and 4 from More Shapes for Quick Images (C30; from Session 3A.2).



4 SESSION FOLLOW-UP Daily Practice



Daily Practice: For enrichment, have students complete *Student Activity Book* page 37 or C41.

Assessment: Halves and Fourths

Students partition a circle into halves, color one fourth of a square, and they determine which shapes are and are not divided into halves or fourths.

Benchmarks addressed:

- Understand that *halves* (*fourths* or *quarters*) apply to wholes divided into two (four) equal parts
- Partition circles and rectangles into two and four equal parts

In order to meet the benchmark, students' work should show that they can:

- Partition a circle into two equal parts
- Color one fourth of the square
- Circle only the shapes that are accurately divided into halves and fourths

Meeting the Benchmark

Students who meet the benchmark understand that halves are two equal parts of a whole, and fourths are four equal parts of a whole. They can partition a shape into halves or fourths, accurately color a given amount, and discern shapes that do and do not show accurate halves and fourths.

Partially Meeting the Benchmark

Students who partially meet the benchmark show some understanding about halves and fourths, but they may be inconsistent. They may think a shape with 4 unequal parts or with 3 equal parts shows fourths because it is challenging to hold onto both the numbers of parts and the fact that they must be equal. They are likely more comfortable with halves than with fourths.

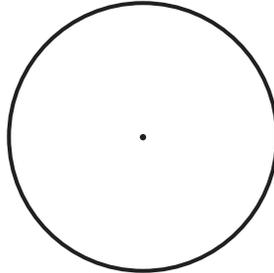
Not Meeting the Benchmark

Students who do not meet the benchmark have difficulty dealing with both of the important ideas about fractions at once—the numbers of parts and the fact that they must be equal. They are likely more comfortable with halves than with fourths.

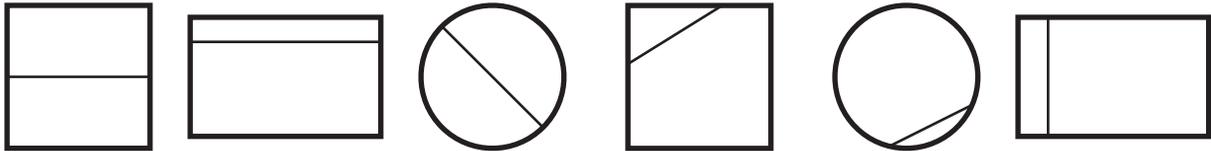


Assessment: Halves and Fourths

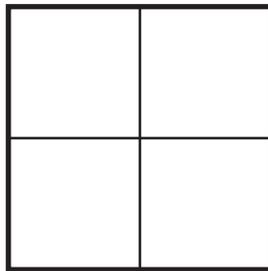
1. Draw a line that cuts the circle in half.



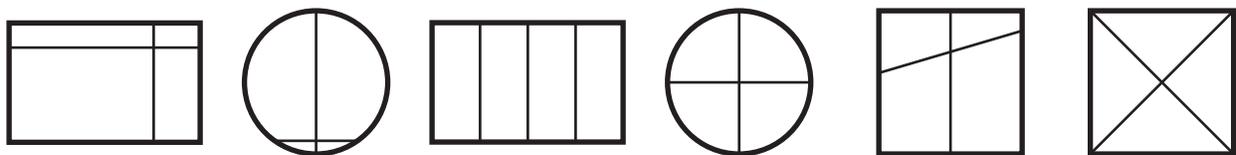
2. Circle the rugs that show halves.

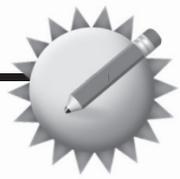


3. Color one quarter of the square.



4. Circle the rugs that show fourths.

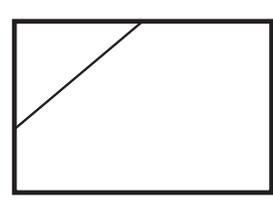
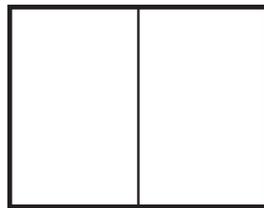
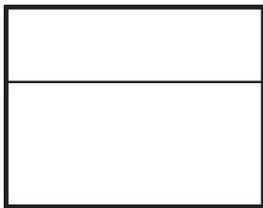
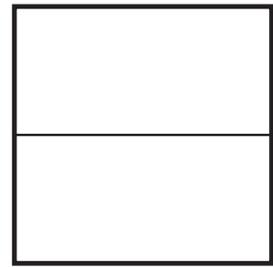
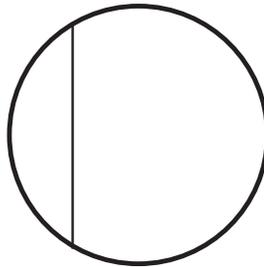
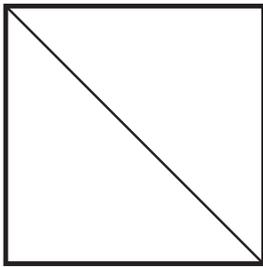




Identifying Halves and Fourths

NOTE Students identify halves and fourths.

1. Circle the figures that show **halves**.



2. Circle the figures that show **fourths**.

