Using a Session

Teacher's Guide

i-Ready Classroom Mathematics lessons consist of three types of sessions: Explore, Develop, and Refine. The following is a walkthrough of the planning and support features within the Teacher's Guide for a Develop session. You will find many of the same features in the Explore and Refine sessions.

Lesson Overview provides information for use in planning whole class instruction, small group differentiation, and independent learning opportunities.

CCSS Focus sets learning expectations for students' conceptual understanding and how they demonstrate that understanding.

Content Objectives identify the mathematical learning goals for the lesson, while **Language Objectives** identify how students show their understanding of those goals.

Prerequisite Skills are opportunities to monitor understanding and identify students' learning needs.

Learning Progression sets context for the mathematics of the lesson, providing information on how the content fits across and within grade levels—what students previously learned, what they are learning now, and what they will be learning next.

Lesson Overview

LESSON 23

Find Equivalent Fractions

CCSS Focus

Domain
Number and Operations—Fractions

Cluster
A. Develop understanding of fractions as numbers.

Standards
3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
b. Recognize and generate simple equivalent fractions, e.g., $\frac{1}{2} = \frac{2}{4}$, $\frac{4}{6} = \frac{2}{3}$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form $3 = \frac{3}{1}$; recognize that $\frac{6}{1} = 6$; locate $\frac{4}{4}$ and 1 at the same point of a number line diagram.*

Additional Standards
3.NF.A.2a, 3.NF.A.2b, 3.NF.A.3a
(See Standards Correlations at the end of the book for full text.)

Standards for Mathematical Practice (SMP)
SMPs 1, 2, 3, 4, 5, and 6 are integrated in every lesson through the *Try-Discuss-Connect* routine.*
In addition, this lesson particularly emphasizes the following SMPs:
4 Model with mathematics.
5 Use appropriate tools strategically.
6 Attend to precision.
7 Look for and make use of structure.
8 Look for and express regularity in repeated reasoning.

*See page 455i to see how every lesson includes these SMPs.

Lesson Objectives

Content Objectives
- Use fraction models and number lines to identify and create equivalent fractions, including those that are greater than or equal to one whole.
- Identify, model, and write equivalent fractions for whole numbers.

Language Objectives
- Write equivalent fractions for numbers greater than 1.
- Write whole numbers as fractions and justify, using area models or number lines.
- Write a fraction that represents a whole number.
- Tell why a fraction with a denominator of 1 is equivalent to a whole number.

Prerequisite Skills
- Understand the meaning of fractions.
- Identify fractions represented by models.
- Understand that the size of a fractional part is relative to the size of the whole.
- Understand how to use number lines to count and identify fractional parts.

Lesson Vocabulary
There is no new vocabulary. Review the following key terms.
- **denominator** the number below the line in a fraction that tells the number of equal parts in the whole.
- **equivalent fractions** two or more different fractions that name the same part of a whole or the same point on a number line.
- **fraction** a number that names equal parts of a whole. A fraction names a point on the number line.
- **numerator** the number above the line in a fraction that tells the number of equal parts that are being described.

Learning Progression
In the previous lesson students developed a conceptual understanding of equivalent fractions by using fraction models and number lines.
In this lesson students extend their understanding to include identifying and generating equivalent fractions, including equivalent fractions for whole numbers that are equal to or greater than 1. Students continue to use fraction models and number lines to reason about fraction equivalency and to find equivalent fractions.
Students learn to write a whole number as an equivalent number of fraction parts and as a fraction with a denominator of 1.
Students' work with equivalent fractions in this lesson provides a foundation for learning to compare fractions in the next two Grade 3 lessons.
In Grade 4 students will learn to find equivalent fractions by multiplying or dividing the numerator and denominator of a fraction by the same whole number.

493a Lesson 23 Find Equivalent Fractions

Lesson Pacing Guide

Whole Class Instruction

SESSION 1 Explore *45–60 min*	**Equivalent Fractions** • Start *5 min* • Try It *10 min* • Discuss It *10 min* • Connect It *15 min* • Close: Exit Ticket *5 min*	**Additional Practice** Lesson pages 497–498
SESSION 2 Develop *45–60 min*	**Finding Equivalent Fractions** • Start *5 min* • Try It *10 min* • Discuss It *10 min* • Picture It & Model It *5 min* • Connect It *10 min* • Close: Exit Ticket *5 min*	**Additional Practice** Lesson pages 503–504 **Fluency** Finding Equivalent Fractions
SESSION 3 Develop *45–60 min*	**Writing a Whole Number as a Fraction** • Start *5 min* • Try It *10 min* • Discuss It *10 min* • Picture It & Model It *5 min* • Connect It *10 min* • Close: Exit Ticket *5 min*	**Additional Practice** Lesson pages 509–510 **Fluency** Writing a Whole Number as a Fraction
SESSION 4 Develop *45–60 min*	**Writing a Whole Number as a Fraction with a Denominator of 1** • Start *5 min* • Try It *10 min* • Discuss It *10 min* • Picture It & Model It *5 min* • Connect It *10 min* • Close: Exit Ticket *5 min*	**Additional Practice** Lesson pages 515–516 **Fluency** Writing a Whole Number as a Fraction with a Denominator of 1
SESSION 5 Refine *45–60 min*	**Finding Equivalent Fractions** • Start *5 min* • Example & Problems 1–3 *15 min* • Practice & Small Group Differentiation *20 min* • Close: Exit Ticket *5 min*	**Lesson Quiz** or **Digital Comprehension Check**

Lesson Materials

Lesson *(Required)*	*Per student:* fraction tiles *Activity Sheet:* Number Lines**
Activities	*Per student:* scissors, tape, colored pencils; *Per pair:* fraction circles *Activity Sheets:* 1-Inch Grid Paper**, Multiplication Table
Math Toolkit	fraction circles, fraction tiles, fraction bars, number lines, grid paper, index cards, crayons
Digital Math Tools	Fraction Models, Number Line

**Used for more than one activity.

Teacher Toolbox

Small Group Differentiation

PREPARE

Ready Prerequisite Lesson

Grade 2
• Lesson 29 Understand Partitioning Shapes Into Halves, Thirds, and Fourths

RETEACH

Tools for Instruction

Grade 2
• Lesson 30 Make Equal Shares

Grade 3
• Lesson 23 Find Equivalent Fractions

REINFORCE

Math Center Activity

Grade 3
• Lesson 23 Building Equivalent Fractions

EXTEND

Enrichment Activity

Grade 3
• Lesson 23 Colorful Quilts

i-Ready

Independent Learning

PERSONALIZE

i-Ready Lesson*

Grade 3
• Find Equivalent Fractions

Learning Game
• *Bounce*

*We continually update the Interactive Tutorials. Check the Teacher Toolbox for the most up-to-date offerings for this lesson.

Whole Class Instruction session-by-session pacing is used to plan daily instruction and practice.

Small Group Differentiation resources support learning for all students with *Tools for Instruction* for targeted skills instruction, differentiated *Math Center Activities* to reinforce on-level skills, and *Enrichment Activities* that extend understanding.

Additional Practice and **Fluency & Skills Practice** are for use as in-class small group work, after-class work, or at-home learning.

Optional Add-On: **Independent Learning** resources provide students with opportunities to strengthen grade-level skills by working on their personalized path with *i-Ready* Online Instruction or to build fluency skills with interactive Learning Games.

The **Lesson Quiz** or **Digital Comprehension Check** assesses students' progress toward mastery of lesson content and is a way to identify where reteaching is needed.

Teacher's Guide *continued*

Purpose provides a roadmap of what students will be learning and doing across the session.

Start establishes a clear and accessible entry point for each session, engaging students mathematically with prerequisite content. It frequently is an opportunity to have students manipulate concrete objects to model a mathematics skill or concept.

Develop Language provides language support for all students and is especially useful in helping EL students make sense of the problem.

Support Partner Discussion provides teachers with prompts to help students engage in meaningful peer discourse.

Make Sense of the Problem uses a language routine to help students understand the problem. See the Language Routines section on the Teacher Toolbox (under the Program Implementation tab) for suggestions on how to integrate language routines, teacher moves, and conversation tips during instruction.

LESSON 23

SESSION 2 Develop

Purpose In this session students solve a problem that requires showing that two fractions are equivalent. Students model and compare the fractions either on paper or with manipulatives. The purpose of this session is to have students understand how to use models such as area models and number lines to show two fractions are equivalent and represent the same quantity.

Start

Connect to Prior Knowledge

Why Reinforce the concept that two different fractions can name the same part of a whole.

How Have students write two different fractions for a rectangular area model.

Write two different fractions that describe the shaded part of the area model.

Solution $\frac{3}{4}, \frac{6}{8}$

Develop Language

Why Clarify the meaning and use of *amount*.

How Explain that the word *amount* refers to the quantity of something. Point out that *amount* is usually used with things that cannot be counted or that are difficult to count. Have students read the ***Try It*** problem. Explain that if the problem was about how many whole oranges Trey and Carl eat, a number could be used, for example: *Trey and Carl eat 3 oranges.* Explain that the problem refers to how much of an orange Trey eats. Since this quantity cannot be easily counted, we say: *Trey eats the same amount of orange as Carl.* Ask students whether they would use a number or the word *amount* with the following and to explain why: rice (amount), books (number), rain (amount), shoes (number)

TRY IT

Make Sense of the Problem

To support students in making sense of the problem, have them identify the fractions they are being asked to compare.

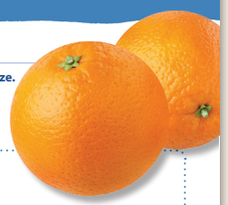
Ask *What fraction of an orange did each boy eat? Why is it important that Trey's orange is the same size as Carl's orange?*

LESSON 23 SESSION 2 ● ● ○ ○ ○

Develop Finding Equivalent Fractions

Read and try to solve the problem below.

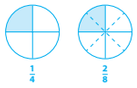
Carl eats $\frac{2}{8}$ of an orange. Trey's orange is the same size. He eats $\frac{1}{4}$ of it. Show that the two boys eat the same amount of an orange.



TRY IT

Possible student work:

Sample A



Math Toolkit
- fraction tiles
- fraction circles
- fraction models
- number lines
- grid paper

Sample B

DISCUSS IT

Ask your partner: How did you choose that strategy?

Tell your partner: A model I used was . . . It helped me . . .

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DISCUSS IT

Support Partner Discussion

Encourage students to use the term *equivalent* as they discuss their solutions.

Support as needed with questions such as:

- *What model did you use?*
- *How did you show fourths? How did you show eighths?*

Common Misconception Look for students who use two different models that cannot be compared, such as an area model and a number line, rather than using two models that are the same kind and size.

Select and Sequence Student Solutions

One possible order for whole class discussion:

- fraction tiles or fraction circles
- area models divided into fourths and eighths
- number lines showing fourths and eighths

499 **Lesson 23** Find Equivalent Fractions

Common Misconception identifies misconceptions that lead to errors in understanding, which can then be addressed in whole class discussion as students are prompted to explain their reasoning.

Select and Sequence Student Solutions gives a range of possible strategies—from concrete to representational to abstract—for use in monitoring student work and facilitating discourse. This information can be used to make decisions about which models and strategies to share and discuss as a class.

Support Whole Class Discussion

Compare and connect the different representations and have students identify how they are related.

Ask *How does each model show the two different denominators? Where does each model show the amount of orange each boy eats? How does each model show that the fractions are equivalent?*

Listen for Area models and number lines should be broken up into four parts and eight parts to show fourths and eighths, respectively, or fourths and eighths fraction tiles should be used. The amount eaten can be shown by shading on an area model, comparing the correct number of each tile, and by drawing points on a number line. The amounts shaded or tiles compared should be the same size and the points on the number line should coincide.

PICTURE IT & MODEL IT

If no student presented these models, connect them to the student models by pointing out the ways they each show:

- the $\frac{2}{8}$ Carl eats
- the $\frac{1}{4}$ Trey eats
- $\frac{2}{8} = \frac{1}{4}$

Ask *How can you tell which area model shows each fraction? How do the area models show that the fractions are equivalent? How does the number line show that the fractions are equivalent?*

Listen for The number of parts the model is divided into shows the denominator and the number of shaded parts shows the numerator. The area models show that the same amount is shaded, even though they are broken into different numbers of parts. The number line shows that the two fractions name the same point.

For an area model, prompt students to identify the numerator and denominator of each fraction and how they are represented in the models.

- *How many equal parts is each orange divided into?*
- *How many parts did each boy eat?*

For a number line, prompt students to explain how to represent each fraction on a number line.

- *How can you label both fourths and eighths on the same number line?*
- *How can you show the amount each boy ate?*

Explore different ways to understand finding equivalent fractions.

Carl eats $\frac{2}{8}$ of an orange. Trey's orange is the same size. He eats $\frac{1}{4}$ of it. Show that the two boys eat the same amount of an orange.

PICTURE IT

You can use models to help find equivalent fractions.

This model shows $\frac{2}{8}$.

This model shows $\frac{1}{4}$.

Look at the model of $\frac{2}{8}$. The solid lines divide the circle into fourths. The dashed lines divide each fourth in half to make eighths.

MODEL IT

You can also use a number line to help find equivalent fractions.

This number line shows both fourths and eighths.

Deepen Understanding

Area Models of Equivalent Fractions

SMP 4 Reason quantitatively.

When discussing the area models, prompt students to think about how they can divide each part into smaller equal parts to find other equivalent fractions.

Ask *How could you change the area model for $\frac{1}{4}$ to show $\frac{2}{8}$? Explain.*

Listen for Divide each fourth into 2 equal parts.

Ask *How do the numerator and denominator change when you divide each part into 2 parts?*

Listen for Both the numerator and denominator are doubled.

Ask *Suppose you have an area model showing halves. How can you use that model to show an equivalent fraction with a denominator of 6? How will the numerator and denominator change?*

Listen for Divide each half into 3 equal parts and count the number of shaded parts to find the numerator. Each number in the fraction will be multiplied by 3.

Ask/*Listen for* are mathematical discourse questions followed by expected student responses that support and facilitate whole class discussion.

As students share their thinking, the discourse questions can be used to make connections between student approaches and different models and representations, prompt justifications and critiques of approaches and solutions, and check conceptual understanding.

SMPs are infused throughout the instructional model.

Deepen Understanding is a consistent opportunity to build conceptual understanding of a key lesson concept by extending mathematical discourse. The content connects a particular aspect of lesson learning to an SMP, showing how it looks in the classroom.

Monitor and Confirm is a way to ensure that students have made sense of mathematical learning goals.

Support Whole Class Discussion provides a series of related discourse questions that illuminate the mathematical ideas of the lesson, prompting students to make connections and use that understanding to solve problems leading to abstract reasoning. These questions help students learn how to articulate a generalization of the mathematical concept.

Hands-On Activities occur consistently at strategic points in the lesson after teachers have acquired understanding of students' learning through observation and their work on questions in the Student Worktext. The activities support students who are unsure of the concept and are an opportunity for small group reteaching while other students work independently. Use of concrete objects lets students access understanding in a different way.

LESSON 23
SESSION 2 Develop

CONNECT IT

- Remind students that one thing that is alike about all the representations is the numbers.
- Explain that on this page they will use those numbers to explain why $\frac{2}{8} = \frac{1}{4}$.

Monitor and Confirm

1 – 2 Check for understanding that:

- The denominator tells how many parts the model is divided into.
- The numerator tells how many parts are shaded.

Support Whole Class Discussion

3 – 5 Tell students that these problems will prepare them to provide the explanation required in problem 6.

Be sure students understand that the problems are asking them to explain how the models on the previous page show that the fractions $\frac{2}{8}$ and $\frac{1}{4}$ are equivalent, using both words and numbers.

Ask *Why is it important for the two circles to be the same size? Why is it helpful to use one number line for both fractions instead of two separate number lines?*

Listen for The wholes must be the same size to compare fractions. The circles should be the same size so that the amount shaded is the same for equivalent fractions. Using one number line ensures that the wholes are the same size, and it is easier to tell whether the fractions represent the same point.

6 Look for the understanding that equivalent fractions represent the same amount in same-sized models or the same point on a number line.

7 REFLECT Have all students focus on the strategies used to solve this problem. If time allows, have students share their preferences with a partner.

SESSION 2 ● ● ○ ○ ○

CONNECT IT

Now you will use the problem from the previous page to help you understand how to find equivalent fractions.

1 Look at the models in **Picture It**. How do you know that $\frac{2}{8}$ of the first model is shaded? **There are 8 equal parts, and 2 are shaded.**

2 How do you know that $\frac{1}{4}$ of the second model is shaded?
There are 4 equal parts, and 1 is shaded.

3 Explain how the models show that the fractions $\frac{2}{8}$ and $\frac{1}{4}$ are equivalent.
The wholes are equal in size, and the amount that is shaded is the same.

4 How does the number line in **Model It** show that the fractions $\frac{2}{8}$ and $\frac{1}{4}$ are equivalent? **$\frac{1}{4}$ and $\frac{2}{8}$ are located at the same point on the number line.**

5 Complete the sentences to show that the fractions of the two oranges name the same amount.

Use words: Two eighths is equal to **one fourth**.

Use fractions: $\frac{2}{8} =$ **$\frac{1}{4}$**.

6 Describe two different ways to show two fractions are equivalent.
You can see if they show the same amount in equal-sized area models, or you can see if they are at the same point on a number line.

7 REFLECT

Look back at your **Try It**, strategies by classmates, and **Picture It** and **Model It**. Which models or strategies do you like best for finding equivalent fractions? Explain.

Some students may prefer drawing area models to represent the fractions because it just takes a simple visual check to see that the quantities are equal. Students with strong number sense may prefer using a number line.

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Hands-On Activity

Explore different area models showing fourths and eighths.

If . . . *students struggle with seeing how different models can model the same fractions,*

Then . . . *use this activity to let them explore different ways to divide a shape into equal parts.*

Materials For each student: colored pencils, Activity Sheet *1-Inch Grid Paper*

- Have students record on the board all the different models they drew to show $\frac{2}{8} = \frac{1}{4}$.
- Encourage them to think of additional ways they can show fourths and eighths on a single model. For example, students may have drawn a rectangle with three vertical lines to mark fourths and one dashed horizontal line to show eighths. Another way to show this is to used dashed vertical lines to show eighths, or to outline fourths with one color and outline eighths with another color.
- Have students draw a square on the grid paper and see how many ways they can divide it into fourths and then into eighths.

501 **Lesson 23** Find Equivalent Fractions

APPLY IT

For all problems, encourage students to draw some kind of model to support their thinking. Allow some leeway in precision; the number of the parts of a model and the accuracy of the labels are more important than whether the parts are exactly the same size.

8 6 slices; Area models should consist of two same-sized wholes, one divided into 4 parts with 3 shaded and the other divided into 8 parts with 6 shaded to show that $\frac{3}{4} = \frac{6}{8}$. Number lines should show fourths and eighths labeled, with the point that is labeled both $\frac{3}{4}$ and $\frac{6}{8}$ highlighted.

9 See Student Worktext page; Area models should be divided into three equal parts with two parts shaded, and each of the three parts should be further divided into two equal parts.

Close: Exit Ticket

10 Possible solution: $\frac{2}{6}$; The number line should show each third divided into two (or more) equal parts, and tick marks labeled appropriately.

Students' solutions should indicate understanding that:

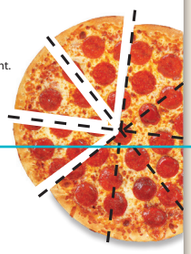
- equivalent fractions refer to the same point on a number line
- each third must be divided into equal parts in order to find a fraction equivalent to $\frac{1}{3}$

Error Alert **If** students' number lines show $\frac{1}{3}$ equal to $\frac{1}{4}$, $\frac{3}{8}$, or another incorrect fraction, **then** have the student redraw the number line on centimeter grid paper with either 12 or 24 grid squares between 0 and 1. Tell them how many grid squares make up each third and each of the other unit fractions so that they can label the number line appropriately and see their error.

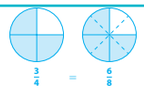
APPLY IT

Use what you just learned to solve these problems.

8 Lina and Adam each order a small pizza. They eat the same amount. Lina eats $\frac{3}{4}$ of her pizza. Adam's pizza is divided into 8 slices. How many slices of pizza did Adam eat? Show your work.



Possible student work:

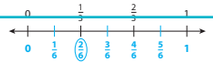


Solution **Adam ate 6 slices of pizza.**

9 Draw a model to show $\frac{2}{3} = \frac{4}{6}$.

Possible student model:

10 Use the number line to find a fraction equivalent to $\frac{1}{3}$. Show your work. **Possible student work:**



Solution **Possible answer: $\frac{2}{6}$**

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Apply It solutions at point of use give a correct response with explanations that include multiple approaches to solving the problem.

Close: Exit Ticket is a quick formative assessment of each day's learning and serves as an indicator of students' progress toward mastery or partial mastery of the learning goal of the session.

Error Alert gives insight into misconceptions that can lead to errors in calculation and provides on-the-spot remediation.

Teacher's Guide *continued*

Additional Practice can be used as in-class small group work, after-class work, or at-home learning.

Solutions are labeled as *Basic*, *Medium*, and *Challenge* to support independent practice that can be differentiated as needed.

Fluency & Skills Practice provides ongoing opportunities for students to accurately, flexibly, and efficiently practice mathematical procedures and operations. This can be used as in-class small group work, after-class work, or at-home learning. Student pages are available on the Teacher Toolbox.

LESSON 23

SESSION 2 Additional Practice

Solutions

1. $\frac{1}{4} = \frac{2}{8}$ ***Basic***
2. $\frac{6}{8} = \frac{3}{4}$ ***Basic***
3. $\frac{2}{4} = \frac{4}{8}$ or $\frac{2}{4} = \frac{1}{2}$ ***Basic***

Name: _____ LESSON 23 SESSION 2

Practice Finding Equivalent Fractions

Study the Example showing how to find equivalent fractions. Then solve problems 1–8.

EXAMPLE

Maria colors $\frac{1}{3}$ of her art paper red. Erica colors $\frac{2}{6}$ of her art paper green. The papers are the same size. Do the two girls color the same amount of their art papers?

Maria colors $\frac{1}{3}$.

Erica colors $\frac{2}{6}$.

One third is equal to two sixths.

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

The girls color the same amount of their art papers.

Use the number line to complete the equivalent fractions in problems 1–3.

1. $\frac{1}{4} = \frac{2}{8}$
2. $\frac{6}{8} = \frac{3}{4}$
3. $\frac{2}{4} = \frac{4}{8}$ or $\frac{1}{2}$

Vocabulary

equivalent fractions fractions that name the same point on a number line. $\frac{1}{2}$ and $\frac{2}{4}$ are equivalent.

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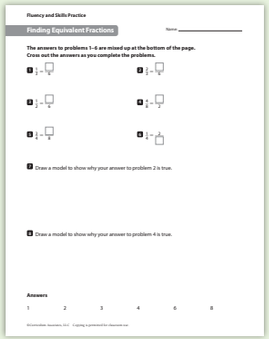
Fluency & Skills Practice Teacher Toolbox

Assign *Finding Equivalent Fractions*

In this activity students practice finding equivalent fractions. Students may experience real-world situations that involve equivalent fractions. For example, students should understand that 1 slice of a loaf of banana bread that has been cut into 5 equal slices is the same amount as 2 slices of the same size loaf of banana bread that has been cut into 10 equal slices.


Fluency and Skills Practice

Finding Equivalent Fractions

Name: _____

The answers to problems 1–6 are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1. $\frac{1}{2} = \frac{\square}{4}$
2. $\frac{1}{2} = \frac{\square}{6}$
3. $\frac{2}{3} = \frac{\square}{6}$
4. $\frac{1}{3} = \frac{\square}{9}$
5. $\frac{1}{4} = \frac{\square}{8}$
6. $\frac{1}{3} = \frac{4}{\square}$

7. Draw a model to show why your answer to problem 2 is true.

8. Draw a model to show why your answer to problem 4 is true.

Answers

1 2 3 4 6 8

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503 Lesson 23 Find Equivalent Fractions ©Curriculum Associates, LLC Copying is not permitted.

4 See student page for shading; $\frac{1}{2} = \frac{4}{8}$
Medium

5 See student page for shading; $\frac{2}{3} = \frac{4}{6}$
Medium

6 See student page for models; $\frac{1}{2} = \frac{2}{4}$
Medium

7 See student page for models; $\frac{4}{6} = \frac{2}{3}$
Medium

8 Answers will vary. Possible answers include $\frac{2}{2}$, $\frac{3}{3}$, $\frac{6}{6}$; and $\frac{8}{8}$; Explanations show recognition that any fraction where the numerator and denominator are the same number equals 1 whole.
Challenge

LESSON 23 SESSION 2

Shade the models to show equivalent fractions in problems 4 and 5. Then fill in the blanks to write equivalent fractions.

4 

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

5 

$\frac{2}{3} = \frac{4}{6}$

Draw lines and shade to show equivalent fractions in problems 6 and 7. Then fill in the blanks to write equivalent fractions.

6 

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

7 

$\frac{4}{6} = \frac{2}{3}$

8 What is a fraction equivalent to $\frac{4}{4}$? Explain how you know.
Answers will vary. Possible answer: $\frac{2}{2}$; If I shaded $\frac{4}{4}$ of a shape, I would shade the whole shape. If I shaded $\frac{2}{2}$ of the same shape, I would also shade the whole shape. $\frac{4}{4}$ and $\frac{2}{2}$ are both equal to 1 whole, so $\frac{4}{4} = \frac{2}{2}$.

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ELL English Language Learners: Differentiated Instruction **Prepare for Session 3** Use with *Apply It*.

Levels 1–3	Levels 2–4	Levels 3–5
Listening/Speaking Read ***Apply It*** problem 6. Display the graphic. Ask: *How many parts are in each triangle?* [2] *What unit fraction names each part?* [one half] Label $\frac{1}{2}$ and $\frac{2}{2}$ on the first triangle. Have students replicate. Point to, say, and have students repeat: *one half, two halves*. Point to the next triangle. Label $\frac{3}{2}$, $\frac{4}{2}$ and say: *three halves, four halves*. Have students replicate and repeat. Say: *Label the last triangle*. Have students chorally count the halves. Display and chorally complete: • $\frac{2}{2}$ = *1 whole* • $\frac{4}{2}$ = *2 wholes* • $\frac{6}{2}$ = *3 wholes*	**Listening/Speaking** Read ***Apply It*** problem 6. Display the graphic. Ask: *How many parts are in each triangle?* [2] *What unit fraction names each part?* [one half] Label $\frac{1}{2}$ and $\frac{2}{2}$ on the first triangle. Have students replicate. Point to, say, and have students repeat: *one half, two halves*. Point to the next triangle. Label $\frac{3}{2}$ and say: *three halves*. Have students replicate and repeat with the fourth half. Say: *Finish labeling the halves*. Have students chorally count the halves. Display: • $\frac{2}{2}$ = *1 whole* • $\frac{4}{2}$ = *2 wholes* • $\frac{6}{2}$ = *3 wholes* Have pairs complete the fractions.	**Listening/Speaking** Have students read ***Apply It*** problem 6. Display the graphic. Ask: *How many parts are in each triangle?* [2] *What unit fraction names each part?* [one half] Label $\frac{1}{2}$ and $\frac{2}{2}$ on the first triangle. Have students replicate. Point to, say, and have students repeat: *one half, two halves*. Say: *Finish labeling the halves*. Have students chorally count the halves. Display: • $\frac{2}{2}$ = *1 whole* • $\frac{4}{2}$ = *2 wholes* • $\frac{6}{2}$ = *3 wholes* Have students form pairs and complete the fractions. Call on students to say each equation.

ELL Differentiated Instruction provides scaffolds for the next session so teachers can focus on productive struggle when solving mathematics problems by addressing language needs throughout the lesson.