

Use More Language

Objective Use *is* and *are* to ask and answer questions about fractions.

30 minutes



Teach this lesson:

- **After** students complete work on fractions in their grade-level math textbooks
- **Before** students complete the activities on page 103 of the student worktext

You need these materials:

- Transparency 52
- markers (4 red and 1 blue)

EXTENSION AND ENRICHMENT

10 minutes



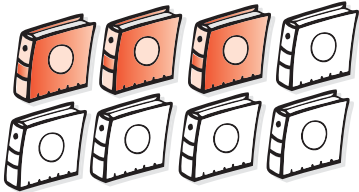
Challenge students to find examples of fractions in everyday life. Help them get started by listing and describing two to three sample fractions, such as a *half* moon, a pizza cut into *eighths*, or a dime (which is one *tenth* of a dollar). Then have students work with a partner or in small groups to think of other examples. Ask them to talk about these examples with the rest of the group. Then have them write and draw the examples to create a class book.

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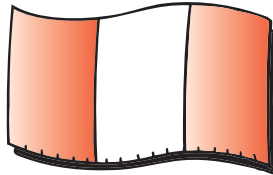
Learn the Language

What fraction of the books are shaded?



$\frac{3}{8}$ of the books are shaded.

What fraction of the flag is shaded?



$\frac{2}{3}$ of the flag is shaded.

For a group:

What fraction of the _____s are _____?

_____ of the _____s are _____.

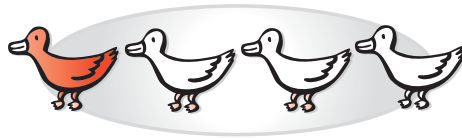
For a whole:

What fraction of the _____ is _____?

_____ of the _____ is _____.

Practice the Language

Directions Write a question and an answer about fractions for each picture below. Use *is* and *are* to tell about fractions.



1 Question: Answers will vary. Possible question:
What fraction of the balloons are black?

Answer: Possible answer: $\frac{3}{5}$ of the balloons are black.

2 Question: Answers will vary. Possible question:
What fraction of the ducks are painted?

Answer: Possible answer: $\frac{1}{4}$ of the ducks are painted.

A Introduce

Read aloud the Lesson Objective on page 103 in the student worktext with students.

Briefly discuss the words *is* and *are*. Write the two words on the board. Point out that they mean the same thing but are used with different words. Write the following sentence on the board: *The dog _____ little.* Ask students which of the two words *is* and *are* goes in the blank. Read the sentence aloud both ways if necessary. Elicit that *is* goes in the sentence. Then repeat, using the sentence *The dogs _____ brown.* (are)

Have students discuss with a partner why they think one sentence uses *is* and the other uses *are*. List their ideas on the board. Reinforce that *is* is used with singular subjects, and *are* is used with plural subjects.

Explain that *is* and *are* can be important words in talking about fractions. Tell students that they should look for the words *is* and *are* as they work through page 103.

Highlighted words and phrases may affect student comprehension.

B Teach and Learn

Draw students' attention to the upper left corner of the Learn the Language box.

Have students read the sentence aloud. Point out that some of the words are underlined. Explain that the words refer to the picture below the text.

- **Ask students how they know that this sentence is a question.** (question mark) Establish also that a question asks for information instead of giving information, and that this sentence asks for information.
- **Have students close their eyes.** Ask them to recall if the question used the word *is* or if it used *are*. (*are*)
- **Move to the answer below the picture.** Have students tell a partner how they know this is an answer (because it gives information and ends with a period) and how they know the answer is $\frac{3}{8}$ (3 of 8 books are shaded).
- **Review Essential Vocabulary terms by asking students which part of the fraction is the numerator and which is the denominator.** (3 is the numerator; 8 is the denominator) Then ask students if the example shows equal parts of a *whole* or equal parts of a *group*. Establish that the example shows equal parts of a group.

Repeat the above procedure with the example on the right. Be sure students notice that *is* has replaced *are* in both question and answer. Be sure students also see that this example shows equal parts of a whole, not equal parts of a group.

Challenge students to identify when to use *is* and when to use *are* in asking and answering questions about fractions.

Encourage them to think back to the discussion about *is* and *are* in the lesson introduction. Have students talk with partners, and then ask them to share their ideas with the rest of the class. Establish that *is* should be used with fractions of a whole, because a whole is only one object. This is the same as when we say: *The dog is little.* *Are* applies to fractions of a group because a group includes more than one object. This is the same as when we say: *The dogs are brown.*

Assign students to work in pairs. Have them ask and answer the questions in the Learn the Language box as if they were

dialogue. For example, one student would say *What fraction of the flag is shaded?* and the other would reply $\frac{2}{3}$ of the flag is shaded.

Have them repeat these dialogues a few times. Allow students to read from the text at first, but encourage them to do as much from memory as they can. You can model this process with a volunteer before students break into pairs.

Point out the sentence frames in the student worktext. Be sure students see that one of the frames applies to equal parts of a group and the other to equal parts of a whole. Read the frames aloud with students.



Display Transparency 52. Model for students a question and answer about the first picture. Say: *What fraction of the flag is shaded? That's the question.* Together repeat the question. Then say: *Can anyone tell me the answer to this question?* Help students answer *Two thirds of the flag is shaded.*

- **BP 3 Have students ask and answer questions about the other pictures on the transparency.** Ask them to have a dialogue with their partners, one asking the question, the other answering the question. Circulate through the room, offering help and clarification as needed.
- **Discuss the activity with students.** Ask what they found hard or easy about it. Wrap up by explaining that they will often use *is* and *are* to ask and answer questions about fractions.



Review and Practice

Hold up four red markers and one blue marker. Say: $\frac{4}{5}$ of the markers are red. Write that sentence on the board. Then ask: *What question goes with that answer?* Refer students to the sentence frames in the text. Help them see that the answer fits the question *What fraction of the markers are red?*

Repeat by drawing a square divided into fourths on the board and shading one part. Give students the answer $\frac{1}{4}$ of the square is shaded. Help them see that the question is *What fraction of the square is shaded?*

Have students work independently to complete the Practice the Language activity on page 103 in their student worktexts. Ask them to use the sentence frames only if they have to. Check and then assess the students.

D Assess and Intervene

Can students use *is* and *are* to ask and answer questions about fractions, based on Practice the Language on page 103 of the student worktext? Use the rubric to identify students who need extra support through additional help and the Intervention activity.

Intermediate

- Uses *is* or *are* correctly in 1 question and answer.
- Questions and answers use sentence frames with few errors.

Example of a sentence a student might write: *What fraction of duck is paint?*

Advanced

- Uses *is* or *are* correctly in both questions and answers.
- Questions and answers are written in students' own words, with few errors.

Example of a sentence a student might write: *How much of duck is paint?*

INTERVENTION

10 minutes



It is often difficult for students to write fractions of groups accurately. Help students by having them draw pictures. To model the fraction of black balloons in item 1 of Practice the Language, for example, have them draw all the black balloons above a fraction bar. Explain that this shows the numerator of the fraction. Then have them draw *all* the balloons at the bottom of the fraction bar. Explain that this shows the fraction's denominator. Help them count to see that there are 3 black balloons out of 5 in all, so $\frac{3}{5}$ of the balloons are black.