Name

Separate Parts of the Same Whole

(I Can) show subtraction of fractions with visual models and use words to describe the difference.

Spark Your Learning

Ruby cuts off part of this piece of wood for a craft. How much of the original piece of wood does she now have for another project?

$\frac{5}{6}$ yard

$\frac{2}{6}$ yard cut off for a craft

How can you represent this scenario using a visual model?

Show your thinking.

SMALL GROUPS

$\frac{1}{2}$

Turn and Talk What operation did you represent with your visual model? What other operations could you have used?

Build Understanding

1 Ruby has $\frac{9}{12}$ yard of red ribbon. She needs a piece that is $\frac{2}{12}$ yard long to twist across a board. If Ruby cuts off what she needs, how much ribbon will she have for another project?

Use a fraction model to represent and solve the problem.

A. How does your fraction model represent the change in length?

_____

_____

B. How does your fraction model represent the remaining length?

_____

_____

C. How long will the leftover ribbon be? _____

Turn and Talk How does the way you use a fraction model for adding fractions compare to the way you use a fraction model for subtracting fractions?

Step It Out

2 Ruby has $\frac{2}{3}$ yard of string. She only needs $\frac{1}{3}$ yard to tie a knot. How much string will Ruby have after she cuts off $\frac{1}{3}$ yard?

A. Write an equation to model the situation. Use s for the amount of string left.

_____

B. Use a concrete model to represent the amount of string Ruby has. Change your concrete model to represent the amount of string she uses to tie a knot. Draw a visual representation of how you found your solution.

$\frac{1}{2}$

C. How much string does Ruby have left?

_____

Check Understanding Math Board

1 Michael had $\frac{3}{4}$ cup of flour. He used $\frac{2}{4}$ cup in a recipe. How much flour does Michael have now? Draw a fraction model to solve.

_____

2 Brynn has $\frac{5}{10}$ of a book left to read. She reads $\frac{2}{10}$ more of the book. How much does Brynn have left to read now?

_____

On Your Own

3 (MP) **Use Tools** Pedro has $\frac{5}{8}$ gallon of water in a gallon jug. He pours $\frac{2}{8}$ gallon of water from the jug into a water bottle. How much water does Pedro have in the jug now? Use a visual fraction model as a tool to support your answer to the problem.

_____

4 **Open Ended** Write a word problem for the equation $\frac{7}{12} - \blacksquare = \frac{3}{12}$. Then solve the problem.

_____

_____

5 **Financial Literacy** Financial planners suggest that $\frac{8}{10}$ of your income should be used for spending. The rest should go into savings. If you spend $\frac{5}{10}$ of your income to pay bills, how much of your income could you spend on other purchases?

_____

6 Use the visual fraction model to find the difference.
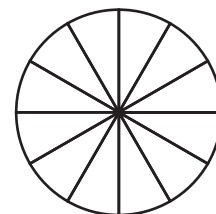
$$\frac{3}{8} - \frac{1}{8} = \underline{\quad}$$

1

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$
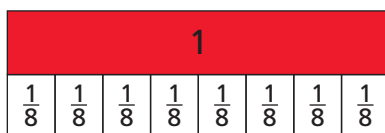
✏️ I'm in a Learning Mindset!

How can I share and accept strategies with others?

_____

Separate Parts of the Same Whole

1 (MP) **Use Tools** Wade has $\frac{7}{12}$ pound of almonds. He uses $\frac{4}{12}$ pound to make trail mix. How many pounds of almonds are left? Use the fraction model as a tool to support your answer. _____

2 (MP) **Reason** Della says $\frac{7}{8}$ minus $\frac{5}{8}$ is $\frac{1}{3}$. Is Della correct? Explain. Use a visual model to support your answer.
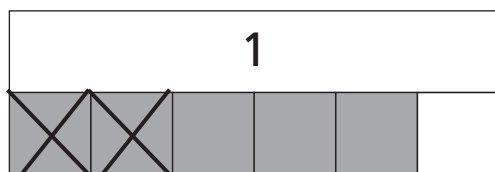
_____

_____

_____

_____

_____

_____

3 **Open Ended** Write a word problem for the visual fraction model shown. Then solve the problem.

_____

_____

_____

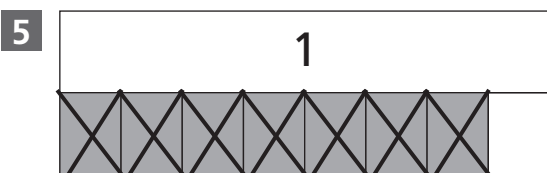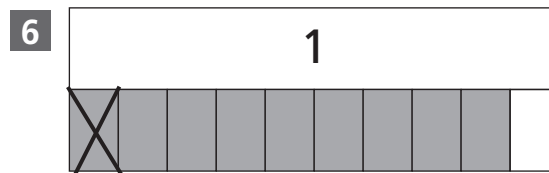| 1 |
|---|

4 David exercises for $\frac{9}{12}$ hour. He spends some time lifting weights and $\frac{6}{12}$ hour running. How long does he spend lifting weights? _____

Use the visual fraction model to find the difference.

5

1

$\frac{7}{8} - \frac{7}{8} =$ _____

6

1

$\frac{9}{10} - \frac{1}{10} =$ _____

Test Prep

7 Which is the difference between $\frac{8}{12}$ and $\frac{4}{12}$?

(A) $\frac{2}{12}$

(B) $\frac{4}{12}$

(C) $\frac{10}{12}$

(D) $\frac{12}{12}$

8 Match the problem with the correct difference.

$\frac{9}{10} - \frac{7}{10}$ •   • $\frac{5}{10}$

$\frac{8}{10} - \frac{4}{10}$ •   • $\frac{2}{10}$

$\frac{7}{10} - \frac{2}{10}$ •   • $\frac{4}{10}$

9 Armand has a kitten that weighs $\frac{11}{12}$ pound. Julio has a kitten that weighs $\frac{10}{12}$ pound. How much less does Julio's kitten weigh than Armand's? Draw a visual fraction model to solve. _____

10 Select all that have a difference of $\frac{2}{8}$.

(A) $\frac{6}{8} - \frac{4}{8}$ (C) $\frac{7}{8} - \frac{6}{8}$

(B) $\frac{5}{8} - \frac{3}{8}$ (D) $\frac{4}{8} - \frac{1}{8}$

Spiral Review

11 Write six tenths as a fraction and as a decimal.

12 Write nine hundredths as a fraction and as a decimal.

14.4 Separate Parts of the Same Whole

LESSON FOCUS AND COHERENCE

■ Major ☐ Supporting ○ Additional

Mathematics Standards
■ Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.

Mathematical Practices and Processes (MP)
- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective
I can show subtraction of fractions with visual models and use words to describe the difference.

Learning Objective
Solve word problems involving subtraction of fractions with like denominators using visual representations.

Language Objective
Demonstrate ways to use visual models to write problems showing subtraction of fractions, and explain how they show the difference.

Lesson Materials: fraction circles, fraction strips, Number Lines (fractions) (Teacher Resource Masters)

Mathematical Progressions

Prior Learning	Current Development	Future Connections
Students: • understood that a fraction represents a part of a whole. **(Gr3, 13.1–13.4)** • understood that the denominator of a fraction shows the number of equal-sized parts that the whole is divided into, and the numerator shows the number of those parts. **(Gr3, 13.1–13.4)**	**Students:** • use visual models to find the difference of fractions with the same denominator. • solve word problems involving the subtraction of fractions with the same denominator.	**Students:** • will add and subtract fractions with unlike denominators. **(Gr5, 7.2)** • will solve word problems involving fractions with unlike denominators. **(Gr5, 7.6)**

PROFESSIONAL LEARNING

Using Mathematical Practices and Processes
Reason abstractly and quantitatively.

In this lesson, students begin to think about what it means to subtract fractions with the same denominator. The emphasis is on using visual models so that students develop a deep understanding of the meaning of fraction subtraction.

Help students understand the meaning of subtraction involving fractions by describing the fractions as parts. **Ask:**

You have 5 one-eighth sized pieces, and you take away 3 one-eighth sized pieces. How many one-eighth sized pieces do you have left?

What does it mean to subtract $\frac{1}{6}$ from $\frac{3}{6}$? How can you represent this with a diagram?

ACTIVATE PRIOR KNOWLEDGE • Parts of a Whole

Use these activities to quickly assess and activate prior knowledge as needed.

Problem of the Day

Write a statement that compares the fractions $\frac{4}{10}$ and $\frac{9}{10}$.

Use $>$ or $<$ in your comparison.

Possible answers: $\frac{4}{10} < \frac{9}{10}$; $\frac{9}{10} > \frac{4}{10}$

Make Connections

Based on students' responses to the Problem of the Day, choose one of the following:

1 Project the Interactive Reteach, Grade 3, Lesson 15.2.

2 Complete the Prerequisite Skills Activity:

On the board, write $\frac{3}{8}$ and $\frac{6}{8}$ next to each other, with a same-sized rectangle underneath each fraction. Ask two students to come to the board and use the rectangle to draw a representation of each fraction. Then ask another student to write a statement that compares the fractions.

Discuss with the class. Make sure students understand that the whole must be the same size in order to compare the fractions.

Repeat with $\frac{7}{10}$ and $\frac{4}{10}$.

If students continue to struggle, use Tier 2 Skill 16.

SHARPEN SKILLS

If time permits, use this on-level activity to build fluency and practice basic skills.

Mental Math

Objective: Students practice adding multiples of 100 mentally.
Materials: number cubes

Have each student work with a partner. The first student tosses three number cubes and uses the digits tossed to generate the greatest possible 3-digit number. The student then rounds the number to the nearest hundred. That becomes their score. The second student then repeats the process and generates their own score. Play continues with each student in turn adding his or her new score to the previous total.

Students continue to play until one person reaches a score of 5,000 after an equal number of turns. Challenge students to play quickly and to keep track of their total score in their heads.

Small-Group Options

Use these teacher-guided activities with pulled small groups at the teacher table.

On Track

Materials: fraction circles, fraction strips

One student writes a subtraction problem involving fractions with the same denominator.

A second student represents the first fraction using a fraction circle or fraction strips. That student then represents the subtraction by crossing out the number of parts that are taken away.

For example, if the first student writes $\frac{7}{10} - \frac{2}{10}$, the second student would show $\frac{7}{10}$ using fraction strips and then cross out two of the parts that are shaded.

Finally, the second student writes an equation with the solution.

The first student checks the work.

Repeat with students switching roles.

Almost There RtI

Materials: MathBoards, fraction strips

Use this Tabletop Flipchart Mini-Lesson to guide students to show how to use fraction strips to represent fractions. Have them represent subtraction by taking away parts of the their fraction-strip models.

Tabletop Flipchart:
Lesson 14.4

Mini-Lesson

Ready for More

Have each student represent a fraction with a fraction circle or fraction strip on the top of a piece of paper.

- Ask students to pass their papers to the student on their right. This student draws two fraction strips or fraction circles that when subtracted, would result in the fraction at the top of the page.

- Papers are again passed to the right. The next student tries to represent two different fractions that also have the difference of the fraction shown on the top of the page.

- This process is continued until students cannot think of other ways to represent the fraction using subtraction.

- The paper is returned to the original student, who reviews all of the representations.

Math Center Options

Use these student self-directed activities at centers or stations.   **Key:** ● Print Resources ● Online Resources

On Track

- ●● More Practice/Homework 14.4
- ● **Standards Practice:** Understand addition and subtraction of fractions
- ● My Learning Summary

Almost There

- ● Reteach 14.4
- ● Interactive Reteach 14.4
- ●● RTI Tier 2 Skill 16: Compare Parts of a Whole

Ready for More

- ● Challenge 14.4
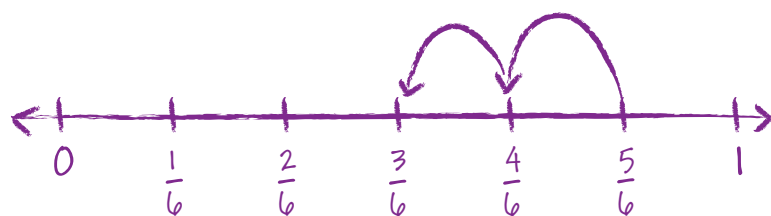- ● Interactive Challenge 14.4

ONLINE Ed   View data-driven recommendations and assign differentiation resources.

During the *Spark Your Learning,* listen and watch for strategies students use. See samples of student work on this page.

Use a Number Line — Strategy 1

$\frac{3}{6}$ yard of wood is left.

If students . . . use fraction strips, a number line, or some other visual model in which the relationship between the parts to the whole is clear, then students have a clear understanding of how to take away some parts of a fraction but still relate the remaining parts to the same whole.

Have these students . . . explain how the amount of wood left over can be expressed as a fraction and how this was determined from their visual models. **Ask:**

Q How would addition be represented differently with this same type of visual model?

Use Counters — Strategy 2

Length of piece of wood
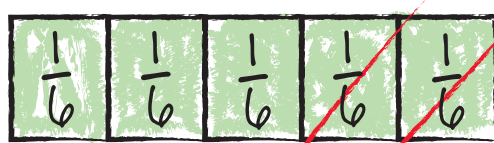
$\frac{3}{6}$ yard of the wood is left.

If students . . . use counters or objects to represent $\frac{1}{6}$ yard of wood, students will be able to determine the length of the wood left over but may not understand how the three parts left over are related to a whole.

Activate prior knowledge . . . by having these students think about how the original piece of wood and the part cut off relate to the whole, which is 1 yard. **Ask:**

Q What is the whole in this problem?

Q How do the original piece of wood and the left-over piece of wood relate to the whole?

COMMON ERROR: Incorrectly Writes Differences
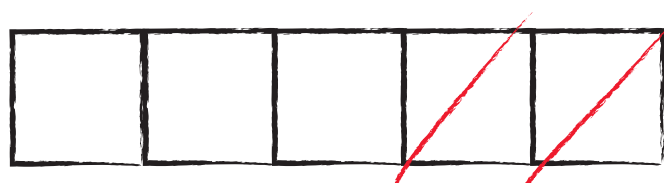
I can divide the piece of wood into five parts and take two of them away.
$\frac{3}{5}$ is left over.

If students . . . represent the number of parts without considering the how the size of the parts relate to size of the whole, they may not understand what constitutes the whole in a fraction.

Then intervene . . . by having students draw a fraction strip that includes six parts. Make sure students understand that the length of the piece of wood is a part of the entire whole which is 1 yard. **Ask:**

Q How could you represent the fraction $\frac{5}{6}$ using this visual model?

Q If you take two of these pieces away, what fraction of a yard does your visual model represent?

Q How could you revise your original visual model so that it represents the length of the piece of wood as a fraction of the whole yard?

Name _____

Separate Parts of the Same Whole

(**I Can**) show subtraction of fractions with visual models and use words to describe the difference.

Spark Your Learning

Ruby cuts off part of this piece of wood for a craft. How much of the original piece of wood does she now have for another project?
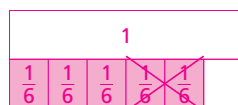
$\frac{5}{6}$ yard

$\frac{2}{6}$ yard cut off for a craft

How can you represent this scenario using a visual model?

Show your thinking.

Possible answer: I can draw fraction strips, shade 5 of the $\frac{1}{6}$-sized parts, and then cross out two of the $\frac{1}{6}$-sized parts to represent the piece of board cut off. That leaves $\frac{3}{6}$ yard.

Possible representation:

1				
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

SMALL GROUPS

Turn and Talk What operation did you represent with your visual model? What other operations could you have used? See possible answers at the right.

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EL

SUPPORT SENSE-MAKING • Three Reads

Tell students to read the problem stem three times and prompt them with a different question each time.

1 What is the situation about?
Possible answer: how much wood is left

2 What are the quantities in the situation?
The wood is $\frac{5}{6}$ yard long; $\frac{2}{6}$ yard was cut off for a craft.

3 What are the possible mathematical questions that you could ask for the situation?
Possible questions: How can you represent the quantities in the problem as fractions? How do you subtract fractions with like denominators? How can you represent the amount of wood left over?

---

① Spark Your Learning

▶ MOTIVATE

Introduce the problem. **Ask students:** What do you know about making crafts or building things out of wood? Students may wish to relate things that they have learned when going to large hardware stores or lumber yards about measuring wood.

EL **SUPPORT SENSE-MAKING** **Three Reads**
Have students read the problem three times. Use the questions in the Three Reads box below for a different focus each time.

▶ PERSEVERE

If students need support, guide them by asking:

Q **Assessing** What is happening in the problem? $\frac{2}{6}$ yard is cut from a board that is $\frac{5}{6}$ yard long.

Q **Assessing** What visual models could you draw to show the problem? Possible answers: number line, fraction circles, fraction strips

Q **Assessing** How will your visual model differ from other visual models you have drawn in this module? Possible answer: This visual model shows something taken away. The others have shown things being added.

Q **Advancing** Why doesn't the original piece of wood represent the whole in this problem? Possible answer: The problem is about measurements of length of the wood and so the whole is 1 yard, not the piece of wood.

Q **Advancing** Which fraction will you represent first? Why? Represent $\frac{5}{6}$ first because $\frac{2}{6}$ is taken from $\frac{5}{6}$.

Turn and Talk Encourage students to share different ways to solve the problem. For students who are struggling, have them circle words in the problem that indicate what operation is needed to solve. Possible answer: I used subtraction. I knew I was taking an amount away. I could have started with $\frac{2}{6}$ and decided what fraction I would add to get $\frac{5}{6}$.

▶ BUILD SHARED UNDERSTANDING

Select students who used various strategies and have them share with the class how they solved the problem. Encourage students to ask questions of their classmates. Using a fraction strip is based on prior knowledge and should be shared first. Then have students share their other types of visual representations.

② Learn Together

Build Understanding 🖐ACTIVITY

Task 1 (MP) **Use Tools** Encourage students to use a visual fraction model to represent the length of the ribbon. Have students show on the fraction model the amount cut from the ribbon.

Sample Guided Discussion:

Q **Why do you first represent the length of the ribbon Ruby has to start?** You represent $\frac{9}{12}$ yard first because the piece remaining is $\frac{2}{12}$ yard shorter than $\frac{9}{12}$ yard.

Q **How does the numerator of the fraction for the length of ribbon Ruby has left compare with the numerator of the fraction for the length of ribbon she started with?** It is 2 less.

💬 **Turn and Talk** Encourage students to share their responses. For students who struggle, display a visual model that shows $\frac{9}{12} + \frac{2}{12}$ so students can compare. Possible answer: Both visual models use fraction strips and equal-sized pieces. When you add fractions, you shade more pieces on the fraction strip. When you subtract, you cross pieces off.

EL **CULTIVATE CONVERSATION**
Stronger and Clearer

Have students share how they solved this problem. Remind students to ask each other questions that focus on how they approached the problem and how they used a visual model in solving the problem.

Build Understanding 🖐ACTIVITY

1 Ruby has $\frac{9}{12}$ yard of red ribbon. She needs a piece that is $\frac{2}{12}$ yard long to twist across a board. If Ruby cuts off what she needs, how much ribbon will she have for another project?

Use a fraction model to represent and solve the problem.

Possible representation:
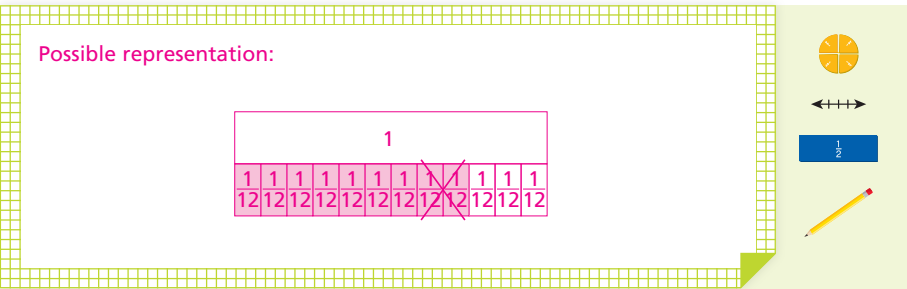
A. How does your fraction model represent the change in length?

Possible answer: I shaded 9 of the 12 parts and then I crossed off 2 of the twelfths.

B. How does your fraction model represent the remaining length?

Possible answer: The part that is shaded and not crossed off is the remaining length of ribbon.

C. How long will the leftover ribbon be? $\frac{7}{12}$ yard

💬 **Turn and Talk** How does the way you use a fraction model for adding fractions compare to the way you use a fraction model for subtracting fractions?
See possible answers at the left.

LEVELED QUESTIONS

Depth of Knowledge (DOK)	Leveled Questions	What Does This Tell You?
Level 1 **Recall**	How do you compare the fractions $\frac{9}{12}$ and $\frac{2}{12}$? $\frac{9}{12} > \frac{2}{12}$	Students' answers will demonstrate whether they identify the greater fraction. This skill is needed for subtracting fractions in this lesson.
Level 2 **Basic Application of Skills & Concepts**	Why do you cross pieces off in a visual fraction model for subtraction? Possible answer: Crossing off indicates that you are taking away.	Students' answers will demonstrate an understanding of how a visual fraction model represents subtraction.
Level 3 **Strategic Thinking & Complex Reasoning**	How could you solve this problem with an addition equation? Possible answer: You could write $\frac{2}{12} + \blacksquare = \frac{9}{12}$. You could count from $\frac{2}{12}$ to $\frac{9}{12}$ to determine the unknown addend.	Students' answers will connect an understanding of the relationship between adding and subtracting whole numbers to the relationship between adding and subtracting fractions.

**Name** _____

Step It Out

2 ▸ Ruby has $\frac{2}{3}$ yard of string. She only needs $\frac{1}{3}$ yard to tie a knot. How much string will Ruby have after she cuts off $\frac{1}{3}$ yard?

A. Write an equation to model the situation. Use s for the amount of string left.

Possible equation: $\frac{2}{3} - \frac{1}{3} = s$

B. Use a concrete model to represent the amount of string Ruby has. Change your concrete model to represent the amount of string she uses to tie a knot. Draw a visual representation of how you found your solution.

Possible representation:
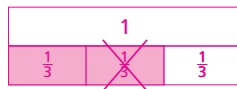
C. How much string does Ruby have left?

$\frac{1}{3}$ yard

Check Understanding [Math Board]

1 Michael had $\frac{3}{4}$ cup of flour. He used $\frac{2}{4}$ cup in a recipe. How much flour does Michael have now? Draw a fraction model to solve.

Michael has $\frac{1}{4}$ cup left.

Possible fraction model:
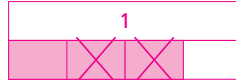
2 Brynn has $\frac{5}{10}$ of a book left to read. She reads $\frac{2}{10}$ more of the book. How much does Brynn have left to read now?

Brynn has $\frac{3}{10}$ of the book left to read.

Step It Out

Task 2 (MP) **Use Tools** Encourage students to use a visual fraction model to represent the length of the string. Have students show on the fraction model the amount cut from the ribbon. Student can describe their model as a way to build an equation.

Sample Guided Discussion:

Q **Which fraction is greater? Why do you need to figure this out?** $\frac{2}{3}$ is greater; Possible answer: The problem requires you to take the lesser fraction from the greater fraction.

Q **Why is this subtraction problem a separation problem?** Possible answer: The problem asks for the amount left after $\frac{1}{3}$ yard is cut from a piece that is $\frac{2}{3}$ yard.

Q **How does the numerator of the amount left compare with the numerators of the fractions that are separated?** Possible answer: The numerator of the amount left is equal to the difference of the numerator of the starting length and the numerator of the amount cut off.

data checkpoint

③ Check Understanding

Formative Assessment

Use formative assessment to determine if your students are successful with this lesson's learning objective.

Students who successfully complete the Check Understanding can continue to the On Your Own practice.

For students who miss 1 problem or more, work in a pulled small group with the Tabletop Flipchart Mini-Lesson.

ONLINE [Ed] **Assign the Digital Check Understanding to determine**
- success with the learning objective
- items to review
- grouping and differentiation resources

④ Differentiation Options

Differentiate instruction for all students using small-group mini-lessons and math center activities on page 375C.

Reteach

Challenge

Assign the Digital On Your Own for
- built-in student supports
- Actionable Item Reports
- Standards Analysis Reports

On Your Own

- **Problem 3 • Use Tools** Students show their understanding of how a fraction model is a tool that can be used to represent the problem and its solution.

- **Problem 4 • Open Ended** Students write their own problem for a given equation involving subtraction of fractions.

5 Wrap-Up

Summarize learning with your class. Consider using the Exit Ticket, Put It in Writing, or I Can scale.

Exit Ticket

Shawn feeds $\frac{1}{4}$ teaspoon of food to his fish. Clint feeds $\frac{2}{4}$ teaspoon of food to his fish. How much more food does Clint feed to his fish than Shawn does? Explain how you could use tools to solve.

Possible answer: Clint feeds $\frac{1}{4}$ teaspoon more than Shawn does. I could draw a fraction bar with fourths. I would shade 2 fourths to show the amount Clint feeds his fish. Then I would cross 1 fourth out to show the amount Shawn feeds his fish. There would be 1 fourth left.

Put It in Writing

Explain how you could represent $\frac{6}{8}$ minus $\frac{3}{8}$ with a fraction model.

I Can

The scales below can help you and your students understand their progress on a learning goal.

|	
4	I can explain how to show subtraction of fractions with visual models and describe the difference.
3	I can show subtraction of fractions with visual models and use words to describe the difference.
2	I can show subtraction of fractions with visual models.
1	I can represent fractions.

On Your Own

3 **Use Tools** Pedro has $\frac{5}{8}$ gallon of water in a gallon jug. He pours $\frac{2}{8}$ gallon of water from the jug into a water bottle. How much water does Pedro have in the jug now? Use a visual fraction model as a tool to support your answer to the problem.

Possible fraction model:
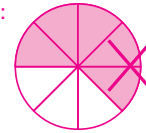
$\frac{3}{8}$ gal in the jug

4 **Open Ended** Write a word problem for the equation $\frac{7}{12} - \blacksquare = \frac{3}{12}$. Then solve the problem. Possible problem: A pencil is $\frac{7}{12}$ foot long. After a week, it is $\frac{3}{12}$ foot long. How much does the length of the pencil change during the week? It is $\frac{4}{12}$ foot shorter.

5 **Financial Literacy** Financial planners suggest that $\frac{8}{10}$ of your income should be used for spending. The rest should go into savings. If you spend $\frac{5}{10}$ of your income to pay bills, how much of your income could you spend on other purchases?
You could spend $\frac{3}{10}$ of your income on other purchases.

6 Use the visual fraction model to find the difference.

$\frac{3}{8} - \frac{1}{8} = \underline{\frac{2}{8}}$
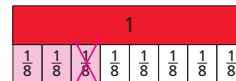
I'm in a Learning Mindset!

How can I share and accept strategies with others?

Learning Mindset

mindset works

Perseverance Getting Unstuck

Provide opportunities for students to ask questions of their peers and share strategies with each other. Reassure students that everyone gets stuck sometimes. *When you get stuck on a problem, sometimes it is hard to know what to do to become unstuck. One way to get unstuck is to talk with someone else. You can explain your strategy or ask questions about another student's strategy. Because there is more than one way to solve a problem, you may start to think about the problem in a different way and get unstuck.*

Assignment Guide

Reference the chart below to assign daily homework.

| Learn Together Tasks	On Your Own Problems
Task 1, p. 376	Problems 3 and 5
Task 2, p. 377	Problems 4 and 6

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Separate Parts of the Same Whole

1 (MP) **Use Tools** Wade has $\frac{7}{12}$ pound of almonds. He uses $\frac{4}{12}$ pound to make trail mix. How many pounds of almonds are left? Use the fraction model as a tool to support your answer. $\frac{3}{12}$ pound
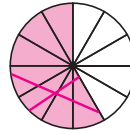
2 (MP) **Reason** Della says $\frac{7}{8}$ minus $\frac{5}{8}$ is $\frac{1}{3}$. Is Della correct? Explain. Use a visual model to support your answer.
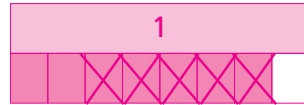
no; Possible explanation: She may have subtracted the numerator of one fraction from the denominator of the other fraction. When subtracting the same-sized pieces, you can subtract the numerators but the denominator doesn't change. The answer should be $\frac{2}{8}$.

Possible visual model:

3 **Open Ended** Write a word problem for the visual fraction model shown. Then solve the problem. Possible problem: In a class, $\frac{5}{6}$ of the students like broccoli. This is $\frac{2}{6}$ more than the fraction of students who like peas. How many students like peas? $\frac{3}{6}$ of the students
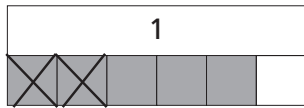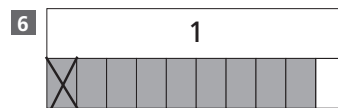
4 David exercises for $\frac{9}{12}$ hour. He spends some time lifting weights and $\frac{6}{12}$ hour running. How long does he spend lifting weights? $\frac{3}{12}$ hour

Use the visual fraction model to find the difference.

5

$\frac{7}{8} - \frac{7}{8} = \frac{0}{8}$

6
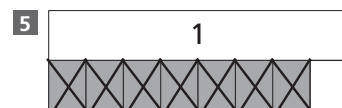
$\frac{9}{10} - \frac{1}{10} = \frac{8}{10}$

Module 14 • Lesson 4

P151

ONLINE

Assign the Digital More Practice/ Homework for
• built-in student supports
• Actionable Item Reports
• Standards Analysis Reports

More Practice/Homework

Separate Parts of the Same Whole

Use More Practice/Homework pages to provide students with additional practice applying the concepts and skills presented in the lesson.

■ **Problem 1 • Use Tools** Students show how they can use tools to solve a problem.

For students who struggle, guide them to describe how many pieces they will shade in their fraction model and then how they will represent how much is used.

■ **Problem 2 • Reason** Students use reasoning to explain why a difference is incorrect.

For students who struggle, guide them to first represent the subtraction with a visual model and then compare their difference with Della's.

■ **Problem 3 • Open Ended** Students write a word problem for the fraction model and then solve their problem.

For students who struggle, brainstorm with them to find scenarios where something may be divided into sixths.

Assignment Guide

Reference the chart below for problems associated with tasks. In a 2-day lesson, reference the chart to assign daily homework.

Learn Together Tasks	More Practice/Homework Problems
Task 1, p. 376	Problems 1, 3, 5, 6, and 9
Task 2, p. 377	Problems 2, 4, 7, 8, and 10

Test Prep

The Test Prep items provided assess understanding of separating parts of the same whole.

These items have the following guidelines:

- Denominators of given fractions are limited to: 2, 3, 4, 5, 6, 8, 10, 12, 100.
- Mixed numbers and fractions must contain like denominators.
- Items must reference the same whole.
- Visual fraction models are limited to circular models, rectangular models, and number-line models.

Additional Test Prep opportunities are available online and in *Getting Ready for High Stakes Assessment*.

Spiral Review

The spiral review problems will help determine if students have retained information taught in the past. Here, students will need to demonstrate the ability to write numbers with denominators of 10 and 100 as both fractions and decimals. **(12.1 and 12.2)**

Test Prep

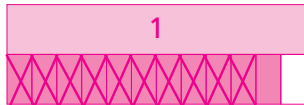**7** Which is the difference between $\frac{8}{12}$ and $\frac{4}{12}$?

- Ⓐ $\frac{2}{12}$
- Ⓑ $\frac{4}{12}$
- Ⓒ $\frac{10}{12}$
- Ⓓ $\frac{12}{12}$

8 Match the problem with the correct difference.

$\frac{9}{10} - \frac{7}{10}$ •   • $\frac{5}{10}$

$\frac{8}{10} - \frac{4}{10}$ •   • $\frac{2}{10}$

$\frac{7}{10} - \frac{2}{10}$ •   • $\frac{4}{10}$
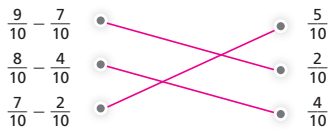
9 Armand has a kitten that weighs $\frac{11}{12}$ pound. Julio has a kitten that weighs $\frac{10}{12}$ pound. How much less does Julio's kitten weigh than Armand's? Draw a visual fraction model to solve. $\underline{\frac{1}{12}}$ **pound less**

Possible visual fraction model:

10 Select all that have a difference of $\frac{2}{8}$.

- Ⓐ $\frac{6}{8} - \frac{4}{8}$
- Ⓒ $\frac{7}{8} - \frac{6}{8}$
- Ⓑ $\frac{5}{8} - \frac{3}{8}$
- Ⓓ $\frac{4}{8} - \frac{1}{8}$

Spiral Review

11 Write six tenths as a fraction and as a decimal.

$\frac{6}{10}$; 0.6

12 Write nine hundredths as a fraction and as a decimal.

$\frac{9}{100}$; 0.09