

# **How Do You Show the One** That is Gone?

#### **MATH FOCUS POINTS**

- Visualizing, representing and solving a subtraction story problem with result unknown
- O Developing strategies for solving subtraction story problems with result unknown
- Using numbers, pictures, words and/or subtraction notation to represent a solution to a problem
- Combining two numbers (0–10), with totals to 20

### **TODAY'S PLAN**

## **MATERIALS**





**CLASSROOM ROUTINES: REVIEW AND PRACTICE** 

Counting on the Number Line

Materials for Counting on the Number Line (from Session 1.2)





**1** ACTIVITY

**Introducing How Many Grapes?** 

(U) Student Activity Book, p. 119



2 MATH WORKSHOP

**Addition and Subtraction: Story Problems and Games** 

2A How Many Grapes?

2B Build and Remove

2C Double Compare

2D Roll and Record 3

(11) 2A Student Activity Book, p. 119



Connecting cubes or other counters

2B Materials from Session 2.4

2C Materials from Session 2.2

2D Materials from Sessions 2.1 and 2.2





3 DISCUSSION

How Do You Show the One That

is Gone?

Students' completed copies of Student Activity Book, p. 119

**SESSION FOLLOW-UP: REVIEW AND PRACTICE** 

**Practice** 

(iii) Student Activity Book, p. 120

Common **Core State Standards** 

Classroom Routines: K.CC.A.1, K.CC.A.2

Session: K.CC.A.3, K.CC.B.4a, K.CC.B.4b, K.CC.B.5,

K.CC.C.6, K.OA.A.1, K.OA.A.2, K.OA.A.5

Practice: K.CC.C.6

#### **CLASSROOM ROUTINES: REVIEW AND PRACTICE**

# Counting on the Number Line





#### **MATH FOCUS POINTS**

- Using the number line as a tool for practicing the rote counting sequence, to 50
- Counting from numbers other than 1

Explain that you're going to continue practicing counting on the number line, but today you'll begin with 4 and count to 50. Point out 50 on your number line, and ask a volunteer to find 4 on the number line and to keep track of the numbers as the class counts from 4 to 50. Ask another volunteer to find 32 on the number line, and again count to 50 as a class. Continue to take notes on Assessment Checklist: Counting Sequence to 100 (A20).

#### 1 ACTIVITY

# **Introducing How Many Grapes?**





Explain that today's session will be just like the previous session. You will tell and discuss a story, and then students will solve it and record their work.

Mia brought grapes for snack. She had five grapes. Then she ate one of the grapes.

As usual, have students visualize the problem. Next ask a few students to retell the story in their own words. Encourage students to focus on what is happening in the story rather than what they think the question and answer will be. MWI

Just like we did yesterday, I'm going to ask a question about the story, and then I'd like you to solve it and find a way to show your solution on paper.

Show them Student Activity Book page 119, read it aloud, and explain the strategies and materials available to them.

So the question you'll be thinking about is how many grapes did Mia have left? Remember she had five grapes, and she ate one. You can use any of the strategies we've been using to solve it—you can act it out, talk with a partner, or model it with cubes or counters. Drawing a picture might help, too.

#### 2 MATH WORKSHOP

# **Addition and Subtraction: Story Problems** and Games



Ask all students to begin with the story problem on Student Activity Book page 119. Explain that, as they finish, they can choose among three activities. Remind students what each activity entails, what materials are required, and where they are located.

# STUDENT ACTIVITY BOOK, P. 119 **How Many Grapes?** Read the problem. Show your work Mia brought grapes for snack. Then she ate 1 of the grapes. How many grapes did Mia have left? 4 grapes; Review students' work. UNIT 6 119 SESSION 2.7

#### **MATH WORDS AND IDEAS**

MWI A Story Problem About Removing

#### 2 A How Many Grapes?



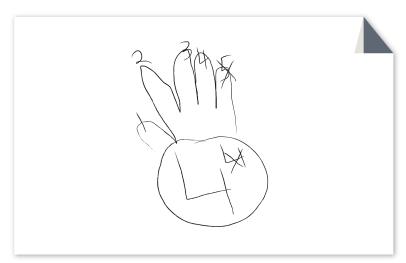
Students solve a story problem about separating one amount from another and then record their work.

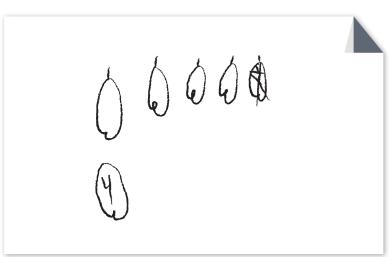
### **ONGOING ASSESSMENT** Observing Students at Work

Students solve a story problem about separating one amount from another and find a way to show their solutions on paper. MPN

- Can students make sense of what is happening in the problem? What strategies do they use? Do they act it out? Model it with manipulatives? Use their fingers? A MP5
- O How do students solve the problem? Do they remove one and count the ones that remain? Count back? Do they "just know" that one fewer than 5 is 4?
- O How do students record their work? Do they use pictures of grapes or of the counters they use to solve the problem? Do they use numbers? Words? A combination? Do students simply show the end result, four, or do they attempt to show the action of the problem? A MP5

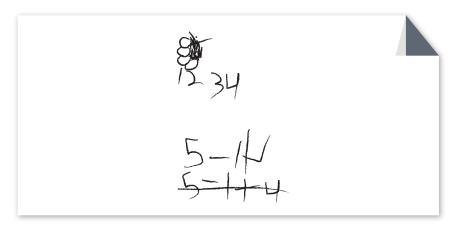
For many students, finding a way to show a grape that is gone is quite challenging. As you observe, note the different ways students handle this on Student Activity Book page 119 to use in the discussion at the end of this session.





#### **MATH PRACTICE NOTE**

MPN MP5 Use appropriate tools strategically. Drawings, diagrams, or other representations on paper provide another set of mathematical tools. Students will learn how to represent their thinking on paper and how to use pictures and diagrams as a tool for thinking.





## **DIFFERENTIATION** Supporting the Range of Learners

**INTERVENTION** Clarify the Task Some students represent both numbers in the problem, for example showing five fingers on one hand and one on the other, or making a tower of five cubes and a tower of one. Revisit the problem with them, following the story problem routine you have been using with the whole class: reread the problem, encourage students to visualize and retell the story. Ask them if they think Mia will have more than five or fewer than five grapes. Then have them act it out or represent it with cubes. Reviewing Solving Story Problems, A Library Story Problem, Solving a Library Story Problem, A Story Problem About Books, and Solving a Story Problem About Books in the Math Words and Ideas may also help.

**INTERVENTION Scaffold a Solution** Help students who struggle with recording think about what they could draw (e.g., pictures of the grapes in the problem or pictures of the cubes they used to solve the problem) or write (e.g., words or numbers). For example, I see that you drew a picture of Mia here. How many grapes did Mia have? Or, You said that the first thing you did was take five cubes for the grapes Mia had for snack. Could you draw a picture that shows the five cubes? What did you do next?

**2** B Build and Remove



For complete details on this game, see Session 2.4.

**2** C Double Compare



For complete details on this game, see Session 2.2. Continue to use **Assessment Checklist:** Representing and Solving Addition Problems and MP3 and MP5 (A21) in this activity.

2 D Roll and Record 3





For complete details on this game, see Sessions 2.1 and 2.2. Continue to use Assessment Checklist: Writing the Numbers to 10 (A19) and Assessment Checklist: Representing and Solving Addition Problems and MP3 and MP5 (A21) in this activity.

#### 3 DISCUSSION

# How Do You Show the One That is Gone?





#### MATH FOCUS POINT FOR DISCUSSION

 Using numbers, pictures, words and/or subtraction notation to represent a solution to a problem

Students will need their completed copy of Student Activity Book p 119. Introduce this discussion by solving the problem together as a class. Once the class is in agreement about the answer, focus on how students recorded their work.

It sounds like you all agree that Mia had four grapes left at the end of the story. I am interested in what you wrote or drew on your papers.

Most likely, some students recorded the situation at the end of the story, drawing or representing four grapes.

[Brad] says [he] drew four [circles, cubes], to show the four grapes that were left. Raise your hand if you did something like [Brad].

Discuss several different representations—circles for grapes, squares for the cubes that stood for grapes, the number 4. Then, point out the challenging aspect of recording one's work for a subtraction problem.

When I look at these papers, I can see really clearly that there were four grapes left at the end of the story. But I don't see the five grapes that Mia started with, or the one grape that she ate. [Raul] and I were talking about this—how do you show something that went away? It's really tricky.

Ask volunteers who showed more than a picture of the situation at the end of the story to share their work.

So [Raul] drew a picture of Mia eating that one grape, [Tammy] drew five grapes and then crossed one of the grapes out, and [Latoya] drew an arrow from one of the grapes to Mia's mouth to show that she ate one of the grapes.

In this way, highlight the different methods you observed students using as they worked.

After a few students have shared, have students pair up and explain their work to their partners. Encourage them to explain how they used numbers or what the numbers on their papers mean. In this way every student in the class will have the opportunity to verbally describe their work to someone.

#### **SESSION FOLLOW-UP: REVIEW AND PRACTICE**

## **Practice**



**PRACTICE** For reinforcement of this unit's content, students complete Student Activity Book page 120.

#### STUDENT ACTIVITY BOOK, P. 120 **Double Compare** Circle the pair of cards in each row that 2 3 1 2 6 3 کدد کدد 2 4 5 رددد 3 1 8 9 666 66666 6666 66666