

## Common Core State Standards

**1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

## Objective

Add and subtract within 20. Solve word problems involving the ideas of fewer than and more than.

The top rack has 6 bowling balls. The bottom rack has 8 balls. How many more balls does the bottom rack have than the top rack?

## Solve Word Problems Involving Comparing

Children have experience with simple compare situations from both school and daily life. Now they will use addition and subtraction within 20 to solve one-step problems involving more complex comparing situations. Understanding this process will help children as they continue to explore increasingly difficult comparing situations in second grade, as well as solve two-step word problems involving comparing.

## Vocabulary

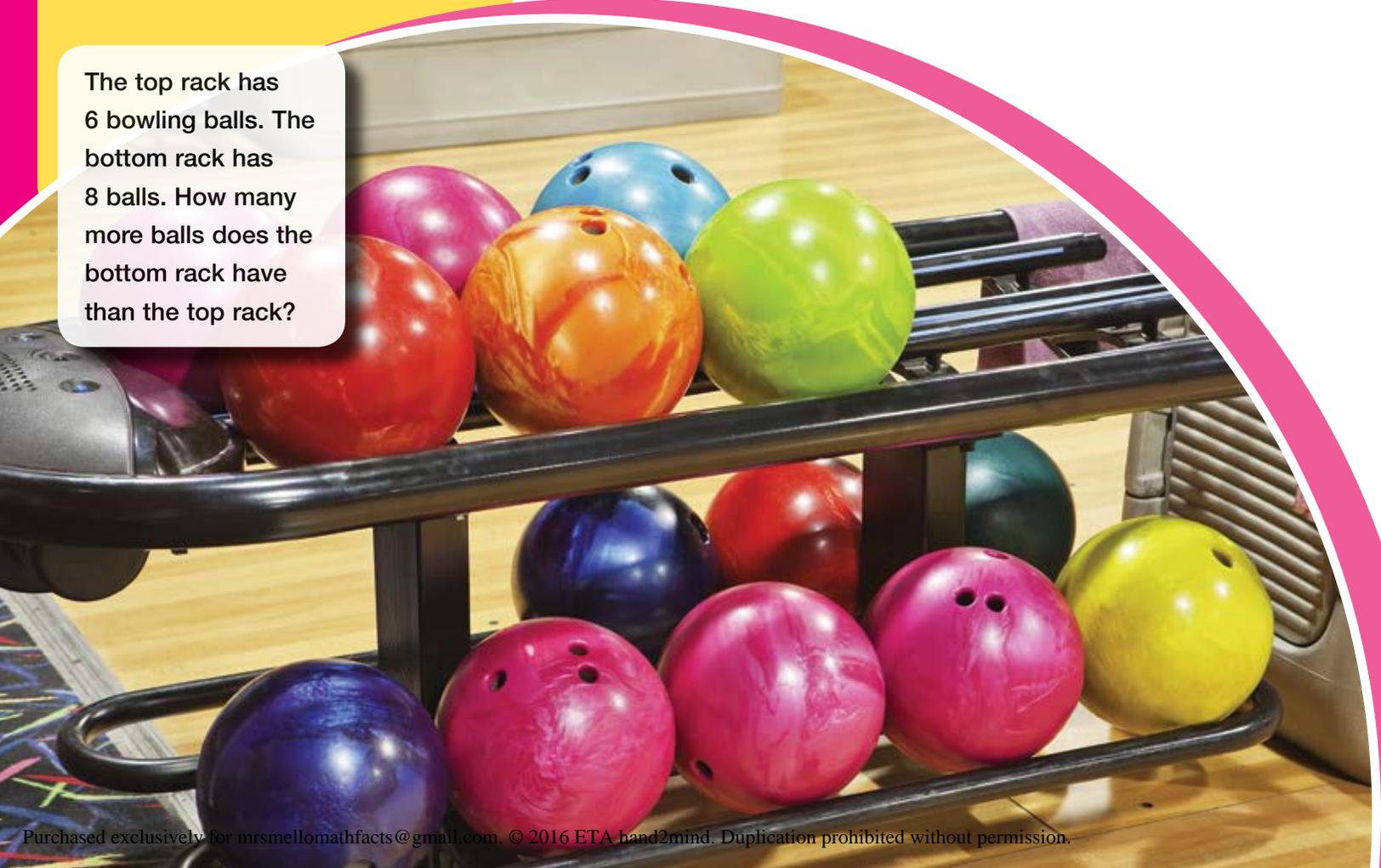
Distribute Rekenreks. Present the problem—

*Lenny has 7 books. Glen has 4 books. Who has more?*

- **Say:** Use the Rekenrek to show how many books each boy has. Show one amount in the top row and the other below it.
- **Ask:** How can you tell who has more? [There are three extras in this row. So Lenny has 3 more.]

Suggest that children line up and match the first beads to see who has more. Then they can count the extras.

- **Ask:** Who has fewer? Tell me how you know. [Glen has 3 fewer books because when we matched up the beads, Glen did not have any extra, but Larry did.]
- **Fewer** is a quantity that is less than another.
- **More** is a quantity that is greater than another.



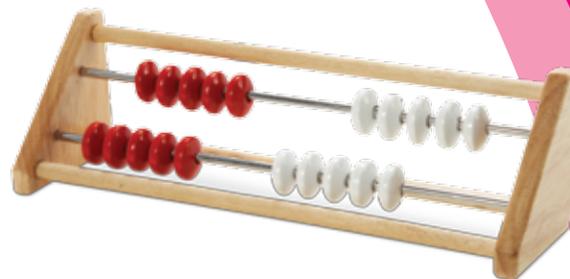
## Set the Stage

### Engage WHOLE CLASS

Distribute the Rekenrek. Present the problem—  
*Paul ate 3 tacos. Jack ate 5 tacos. Who ate more?*

- **Say:** Use your Rekenrek to show how many tacos each friend ate. Have children move 3 beads in one row and 5 beads in the other row.
- **Ask:** Who has more? How do you know? [Jack has more; when I match up the beads, 5 is more than 3.]

Have children use the Rekenrek to compare different numbers and explain who has more



### Warm-Up

Use this short thinking exercise to jump-start the instructional session.

Name Answer Key

**3**

Give me a number that is

- greater than 4 and less than 10.
- greater than 10 and smaller than 15.
- greater than 4 and smaller than 6.

**ANSWER:** a. Sample: 6; b. Sample: 14; c. Sample: 5

**COMMENTS & EXTENSIONS:** Here, again, are problems requiring students to keep in mind several things at once.

Draw a number line to show the numbers that work for each of the three activities.



### Foundation Skill Practice

Use this VersaTiles® activity to help children activate their prior knowledge.

### How Much More or Less?

**Example**

Find the missing number.

6 is  less than 8.

6 is 2 less than 8.



Find the missing number.

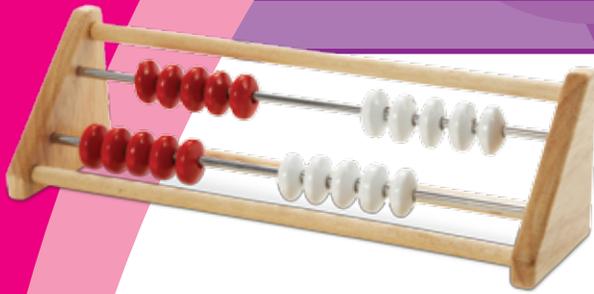
- |           |   |           |   |
|-----------|---|-----------|---|
| <b>1</b>  | 2 is <input type="text"/> less than 7.  | <b>2</b>  | 4 is <input type="text"/> less than 13. |
| <b>3</b>  | 11 is <input type="text"/> more than 1. | <b>4</b>  | 12 is <input type="text"/> more than 4. |
| <b>5</b>  | 2 is <input type="text"/> less than 13. | <b>6</b>  | 5 is <input type="text"/> more than 4.  |
| <b>7</b>  | 10 is <input type="text"/> more than 4. | <b>8</b>  | 2 is <input type="text"/> less than 6.  |
| <b>9</b>  | 5 is <input type="text"/> more than 3.  | <b>10</b> | 3 is <input type="text"/> less than 10. |
| <b>11</b> | 4 is <input type="text"/> less than 7.  | <b>12</b> | 3 is <input type="text"/> more than 3.  |

**Answer Box**

A	B	C	D	E	F
6	7	0	4	11	3
G	H	I	J	K	L
8	5	1	9	10	2



# Introduce the Concept



## Materials

- Rekenrek



## Explore & Explain

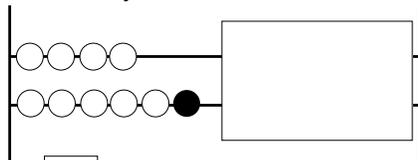
Lesson 3

Solve Word Problems Involving Comparing

Name \_\_\_\_\_ *Answer Key*

### Try This

Anthony has 4 marbles. Peter has 6 marbles.  
How many more marbles does Peter have than Anthony?



$$4 + \square = 6$$

$$4 + 2 = 6$$

Peter has 2 more marbles than Anthony.

### Use the Rekenrek to model the problem.

1. Greg has 7 bagels. Eugene has 13 bagels.  
How many more bagels does Eugene have than Greg?

$$7 + \underline{6} = 13$$

Eugene has 6 more bagels than Greg.

© ETA hand2mind®



Understanding Addition and Subtraction ■ Lesson 3

continued on the next page  
Hands-On Standards® Number & Operations

Online resources available at [hand2mind.com/hosnumbergr1](http://hand2mind.com/hosnumbergr1)

## Explore WHOLE CLASS

Distribute Rekenreks. Present the problem—

*Orlo has 10 oranges. Amel has 7 more oranges than Orlo.  
How many oranges does Amel have?*

- **Ask:** *What do we know?* [We know how many oranges Orlo has]. *How many does he have?* [10]
- **Ask:** *How many more does Amel have than Orlo?* [7]
- **Ask:** *What are we trying to find out?* [How many oranges Amel has.]
- **Say:** *Show me with the Rekenrek how many oranges Orlo has.*
- **Ask:** *Does Amel have more or fewer than Orlo? Do we add or take away beads to show the number of oranges Amel has?* [more; we add]
- **Ask:** *How many beads do we add?* [I must add 7 beads to the 10 I have.]

Write the number sentence  $10 + 7 = \underline{\quad}$ . Have children count out the 17 beads.

- **Ask:** *How many counters do you have in total?* [17]

Complete the number sentence to show the problem:  
 $10 + 7 = 17$

- **Say:** *17 is 7 more than 10.*

## Explore & Explain SMALL GROUPS

**Prepare ahead** Children use the Rekenrek to solve these problems.

Children solve problems by using manipulatives, drawing models, and completing number sentences as they demonstrate an understanding of compare problems. These activities help children build a conceptual understanding of the steps involved in solving comparison problems.

## Reinforce the Concept

### Explain & Elaborate WHOLE CLASS

- **Ask:** *What tools can you use to model and solve problems about comparing numbers?*
- **Ask:** *What would you say to someone who said that when you see two numbers in a problem, you always add to find the answer? [Sample: No, I need to understand what I am trying to find out before I plan what to do.]*

### Evaluate WHOLE CLASS

- **Say:** *I am going to read you a problem.*  
*Lauren has 9 more pieces of string than Clarissa. Clarissa has 4 pieces of string. How many pieces of strings does Lauren have?*
- **Say:** *Make a drawing that shows this problem. Write the number sentence that matches the problem and solve it.*



### Independent Practice

Use this VersaTiles® activity to give children more practice with the skills they learned in the lesson.

#### Let's Compare!

Solve.

- 1 Kara read 12 pages. Mel read 20 pages. How many more pages did Mel read than Kara?
- 2 Tony ate 12 grapes. Brandon ate 8 grapes. How many more grapes did Tony eat than Brandon?
- 3 Blake has 14 stamps. Sarah has 8 stamps. How many fewer stamps does Sarah have than Blake?
- 4 David spent \$10. This was \$5 less than Jane. How much did Jane spend?
- 5 Jack's sister has 16 shells. She has 7 more shells than Jack. How many shells does Jack have?
- 6 Matt has 19 toy cars. Tori has 6 toy cars. How many fewer toy cars does Tori have than Matt?
- 7 A small pizza costs \$14. A large pizza costs \$16. How many fewer dollars does a small pizza cost than a large pizza?

8

VersaTiles® student book, pages 8–9



### Re-Engage

Use this page to give children additional concrete-to-representational-to-abstract practice.

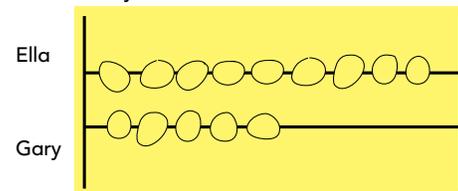
LESSON  
3

Solve Word Problems  
Involving Comparing

Name Answer Key

**Use the Rekenrek to model and solve the problems.**

1. Gary has 5 crackers. Ella has 9 crackers. How many more crackers does Ella have than Gary?



How many more crackers does Ellen have than Gary? 4

2. Gary has 5 crackers. Ella has 9 crackers. How many fewer crackers does Gary have than Ella?

How many fewer crackers does Gary have than Ella? 4

Understanding Addition and Subtraction ■ Lesson 3

continued on the next page  
Hands-On Standards® Number & Operations

Online resources available at [hand2mind.com/hosnumbergr1](http://hand2mind.com/hosnumbergr1)



### Daily Routine

#### Cube Train Comparing

In pairs, children compare quantities within 20. Each child has a train of 20 Snap Cubes®. Behind their backs, they divide the train of cubes into two trains and place one train in their right hand and one train in their left hand. One child says, "Compare right hands." Both children reveal the train in their right hand and compare the number of cubes. The second child tells how many fewer or more cubes he or she has than the partner. Repeat with the left hand.