

Operations and Algebraic Thinking

Using the Minus Sign

Objective

Identify the minus sign and use it to show subtraction.

Common Core State Standards

- **K.OA.1** Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- **K.OA.2** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- **K.OA.5** Fluently add and subtract within 5.

The minus sign is used to show subtraction. Children must learn how to recognize the minus sign. They also must learn to remember what operation it signifies. Often, word problems will not use the minus sign. Because of this, it is important that children learn that words like *less*, *fewer*, *take away*, and *minus* indicate subtraction.

Try It! Perform the Try It! activity on the next page.

Talk About It

Discuss the Try It! activity.

- During the activity discussion, emphasize that the words *fewer*, *less*, and *take away* all tell about using the minus sign.
- **Ask:** *When we take away from a group, does the new group have more or less? How do you know?*
- Instruct children to look at their Take-Away Workmat (BLM 6). Point to the minus sign on a workmat. **Ask:** *What do we call this sign? What does the minus sign show? What should you do when you see the minus sign? When you use the minus sign, are you left with more or fewer than you started with?*

Solve It

With children, reread the problem. Have children make a drawing to show the number of frogs that Maria saw at first (5). Then have children draw the frogs that hopped away (3). Ask children to draw the minus sign between the two groups. Then have them draw how many frogs were left underneath.

More Ideas

For other ways to teach about using the minus sign—

- Write simple subtraction problems using the minus sign on the board, on large sheets of paper, or on note cards. Then have children act out the problems with Three Bear Family® Counters.
- Create a workmat by drawing two large squares with a minus sign between them on a piece of construction paper. Give children a problem such as, “Dana had four crayons on her desk. She put one back in the box. How many crayons were left on Dana’s desk?” Have children practice using Snap Cubes®, or crayons, to show the problem on the workmat.

Formative Assessment

Have children try the following problem.

Tanya had 6 circles. She gave 4 circles to Chris. How many circles does Tanya have left? Draw a minus sign between the two groups. Draw the number of circles left.



Try It! 20 minutes | Independent

Here is a problem that demonstrates using the minus sign.

During recess, Maria found 5 frogs on the playground. Then 3 of the frogs hopped away. How many frogs were left on the playground?

Introduce the problem. Then have children do the activity to solve the problem. Distribute one copy of the Take-Away Workmat (BLM 6) and five Frog Counters to each child.



1. Say: *I had five frogs. I took away three frogs.* **Ask:** *How many frogs were left?* Instruct children to place all of their frogs in the big circle on the Take-Away Workmat. Have children take three frogs away from the big circle and follow the arrow to move them into the small circle.



3. On the board or on a sheet of paper, draw the problem using five frogs, a minus sign, and three frogs. Then write $5 - 3$. Explain that this is how we would write the problem children just did. Make sure children understand that the two expressions show the same problem. Have children practice drawing and writing the corresponding expression.

Materials

- Frog Counters (5 per child)
- Take-Away Workmat (BLM 6; 1 per child)
- paper (1 sheet per child)



2. Introduce the minus sign. Draw a minus sign on the board or on a sheet of paper and display it for children. Tell children that the minus sign describes what they did when they took three frogs away from the five frogs in the large circle. Have children write a minus sign between the two circles on their workmats. Tell children that when we use the minus sign we are taking away. This means that we will have *fewer* or *less* than we started out with.

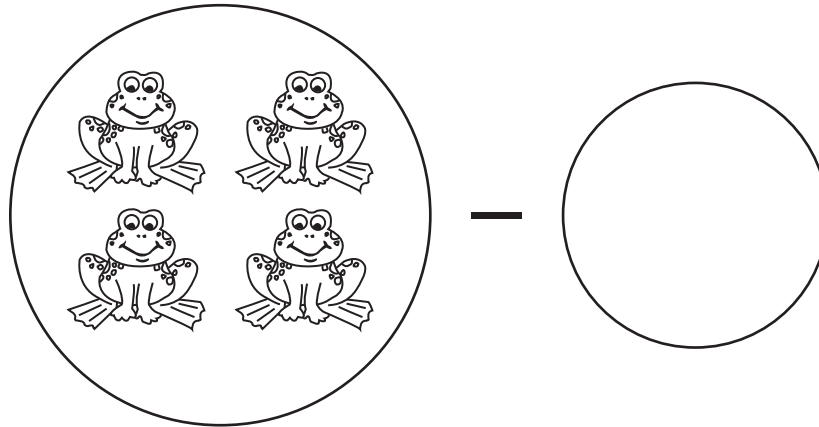
! Look Out!

Watch for children who have trouble understanding the connection between the minus sign and the following vocabulary terms: *fewer*, *less*, and *take away*. Emphasize these words for children as you provide additional examples of subtraction problems. Also, watch for children who confuse the plus sign with the minus sign. Remind children that the minus sign tells us to take away and the plus sign tells us to put together.



Check children's work.

1.



2.

**Directions**

1. Four frogs sit by the pond. Two hop away. How many frogs are left by the pond? Use counters. Model the groups. Write how many frogs are left. **2.** Six presents were on the table. Hugo opened 3 of them. How many presents were left on the table? Use counters. Model the groups. Draw a minus sign between the two groups. Write the number of presents that were left.

Answer Key

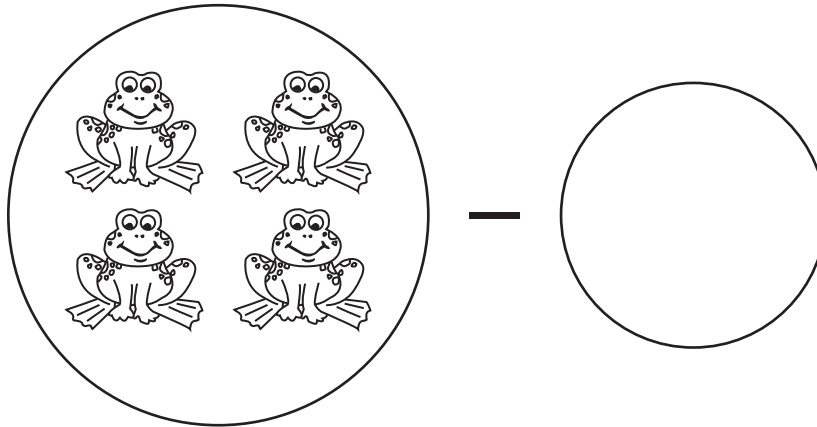
Check children's work.

Challenge

There were 7 flowers in the yard. The children picked 4 flowers to give to their grandma. How many flowers were left in the yard? Draw the 7 flowers in the yard. Draw a minus sign. Draw the 4 flowers that were picked. Write how many flowers were left in the yard.



1.



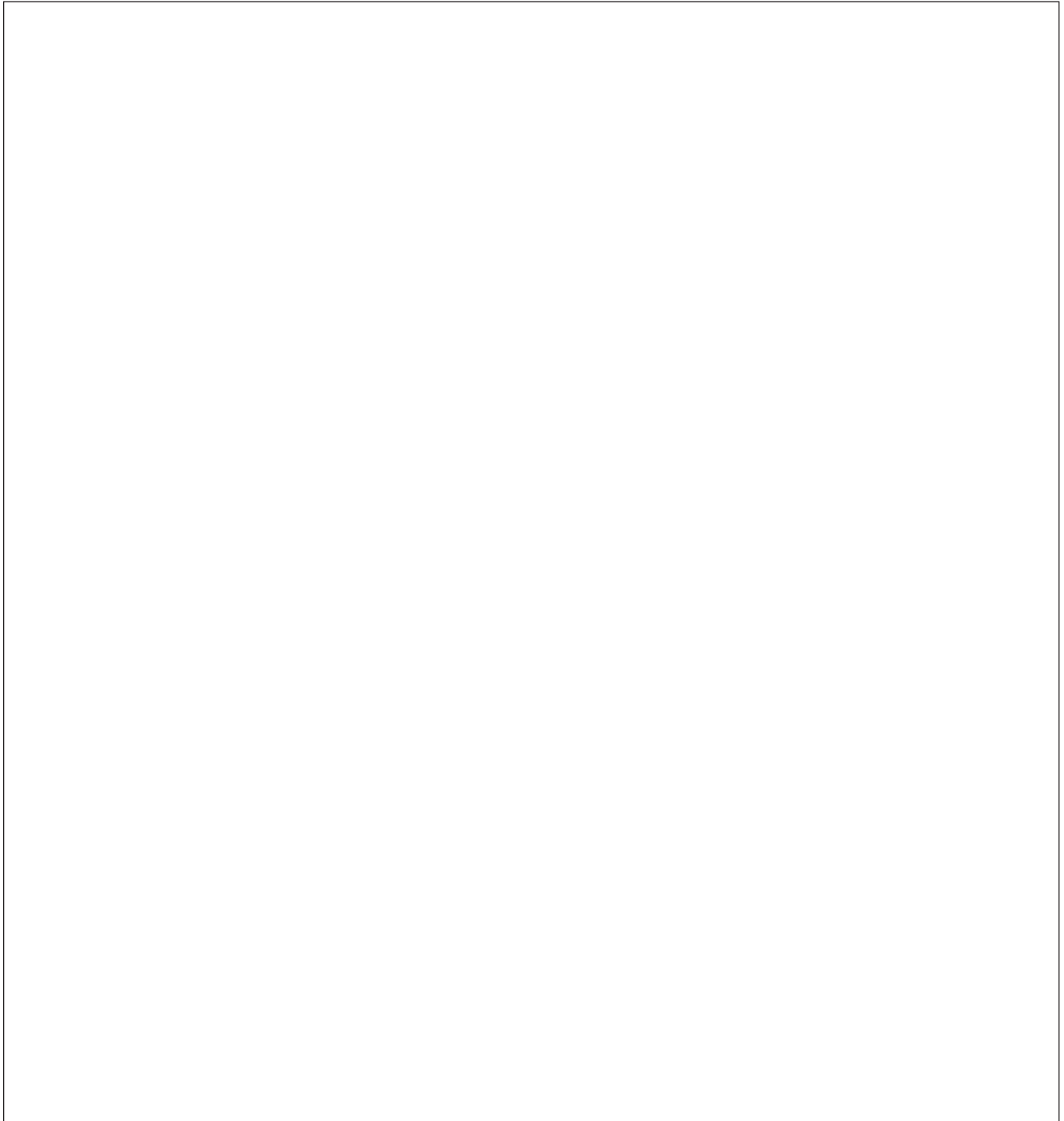
2.



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Name _____



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Name _____

