

LESSON 9

Objective

Given a number from 1 to 9, find the number that makes 10.

Common Core State Standards

- **K.OA.4** For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

Operations and Algebraic Thinking

Make 10

To begin building a strong foundation for the base ten system and addition, children need to understand how two parts make up 10. By using concrete objects and a ten frame or tray, children can group items as $1 + 9$, $2 + 8$, $3 + 7$, $4 + 6$, $5 + 5$, and so on. This will allow children to physically represent ways to make ten. Making tens is a foundation for implementing mental math strategies. Using concrete materials, for a given number from 1 to 9, allows children to visualize the number needed to make 10 when added to the given number. This strong number foundation will benefit children as they begin their study of arithmetic and other operations, and their study of Algebra in the later years.

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

Talk About It

Discuss the Try It! activity.

- **Ask:** How are Ben's case and the sorting tray the same? Discuss how both have 10 sections. **Ask:** How many toy cars can each hold?
- **Ask:** How many toy cars does Ben have in his case? How many toy cars did you put in the tray? How many empty cups are left?
- **Say:** We can write a number sentence to show this problem. As you write $7 + 3 = 10$ on the board, **say:** We write seven to show the number of cars in the case. We write a plus sign to show we're adding. We write three to show how many more cars can fit: seven plus three is equal to (or is the same as) ten.

Solve It

With children, reread the problem. Give children the Ten-Frame Worksheet (BLM 4) and tell them to draw a blue circle in 7 of the boxes to show the 7 toy cars Ben has in his case. Have them draw a red circle in each empty box, and write the number sentence $7 + 3 = 10$ under the frame.

More Ideas

For other ways to teach making 10—

- Have children use Two-Color Counters with the CountEN® Sorting Tray. Give children a number from 1 to 9 and have them place that many counters of one color in the cups of the tray. Then have them fill the remaining cups with counters of the other color. Have children write the number sentence that the counters show.
- Repeat the previous activity using Two-Color Counters with the Ten-Frame Worksheet (BLM 4).

Formative Assessment

Have children try the following problem.

Draw more circles to make 10. Six and how many more circles make 10?



Try It! 10 minutes | Pairs

Here is a problem about making 10.

Ben has 7 toy cars in his case. The case can hold 10 toy cars. How many more toy cars can Ben put in his case?

Introduce the problem. Then have children do the activity to solve the problem. Distribute a CountEN Sorting Tray, 10 car counters from the Classifying Counters, and a Ten-Frame Worksheet (BLM 4) to each pair.

Materials

- CountEN® Sorting Tray (1 per pair)
- Classifying Counters (10 car counters per pair)
- Ten-Frame Worksheet (BLM 4; 1 per pair)



1. Have the children count the cups in the tray. **Say:** The tray can hold the same number of toy cars as Ben's case. **Ask:** How many toy cars can the tray hold?



2. Ask: How many toy cars does Ben have in his case? Have pairs put 7 car counters in the tray, one in each cup filling the top row from left to right before moving to the bottom row. **Say:** Count the cars as you place them in the cups.



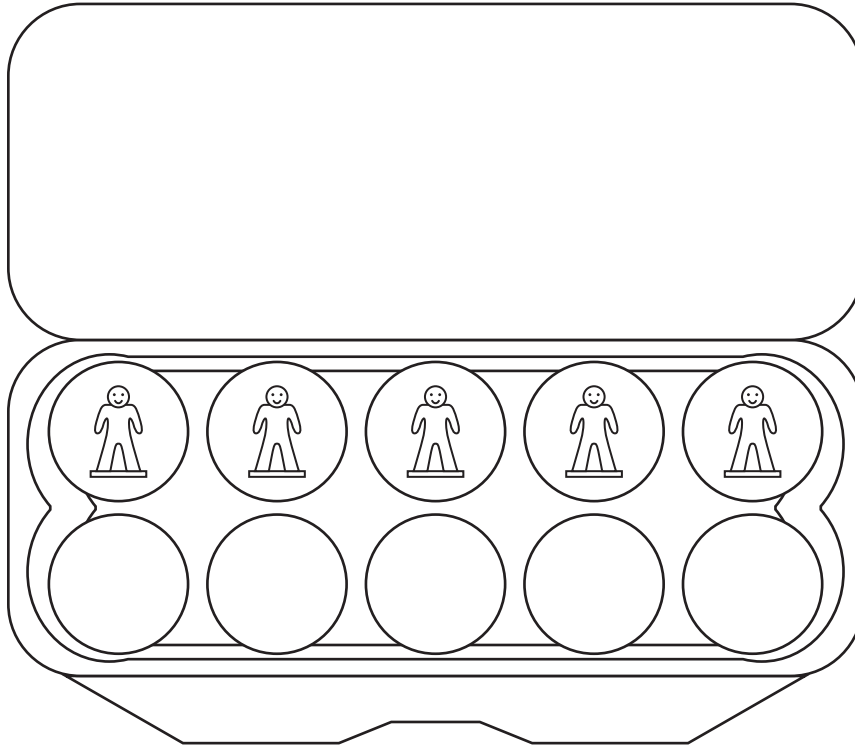
3. Ask: How many cups are empty? How many more toy cars can you put in the tray? How many more toy cars can Ben put in his case?

Look Out!

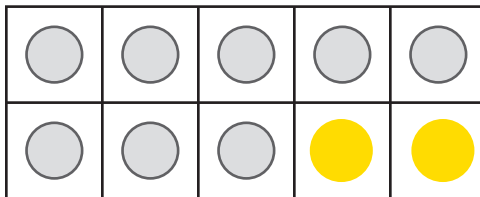
Children may be putting more than one counter in each cup, or may be scattering the counters in the cups. Make sure children are putting one counter in each cup, filling five cups in a row first, then working with the other row/column of five. This will help them visualize the two parts that make up 10 more clearly and will help children to make 5's.

Check children's work.

1. $5 + \underline{\quad 5 \quad} = 10$



2. $\underline{\quad 8 \quad} + \underline{\quad 2 \quad} = 10$

**Directions**

1. Five children are sitting at a table with 10 chairs. How many more children can sit at the table? Count the empty spots. Write the number to complete the number sentence. Draw a child in each empty spot. 2. Count the circles. Write the number in the first blank. Then draw a circle in each empty spot. Write the number in the second blank to make 10.



Answer Key

Check children's work.

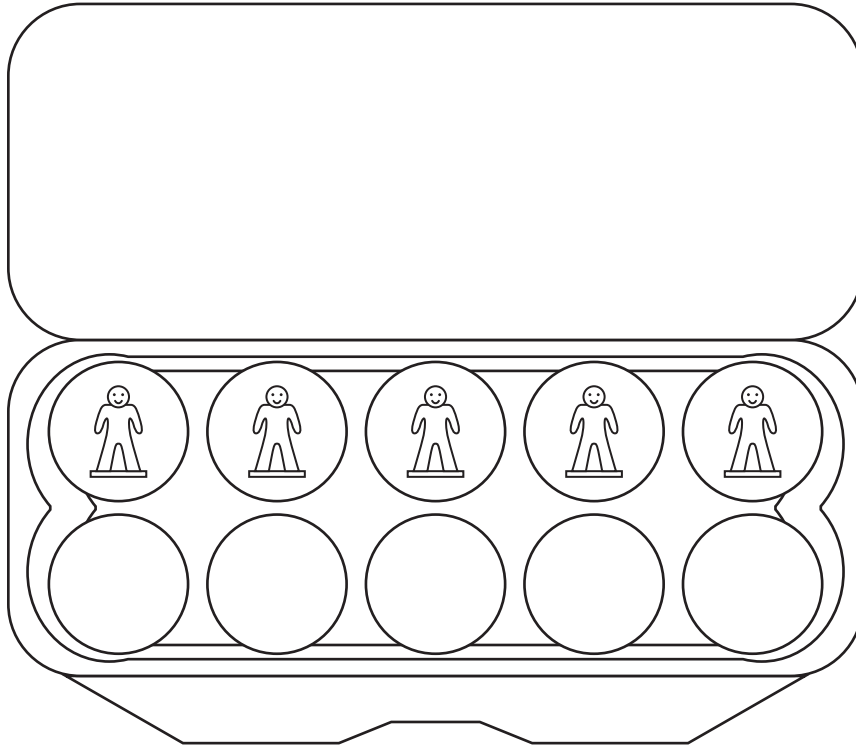
Challenge

There are 10 pieces of fruit. Nine are apples. How many are oranges? Draw the fruit and write a number sentence.

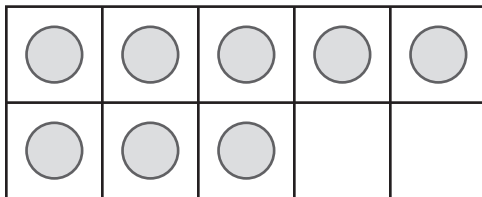
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1. $5 + \underline{\hspace{2cm}} = 10$



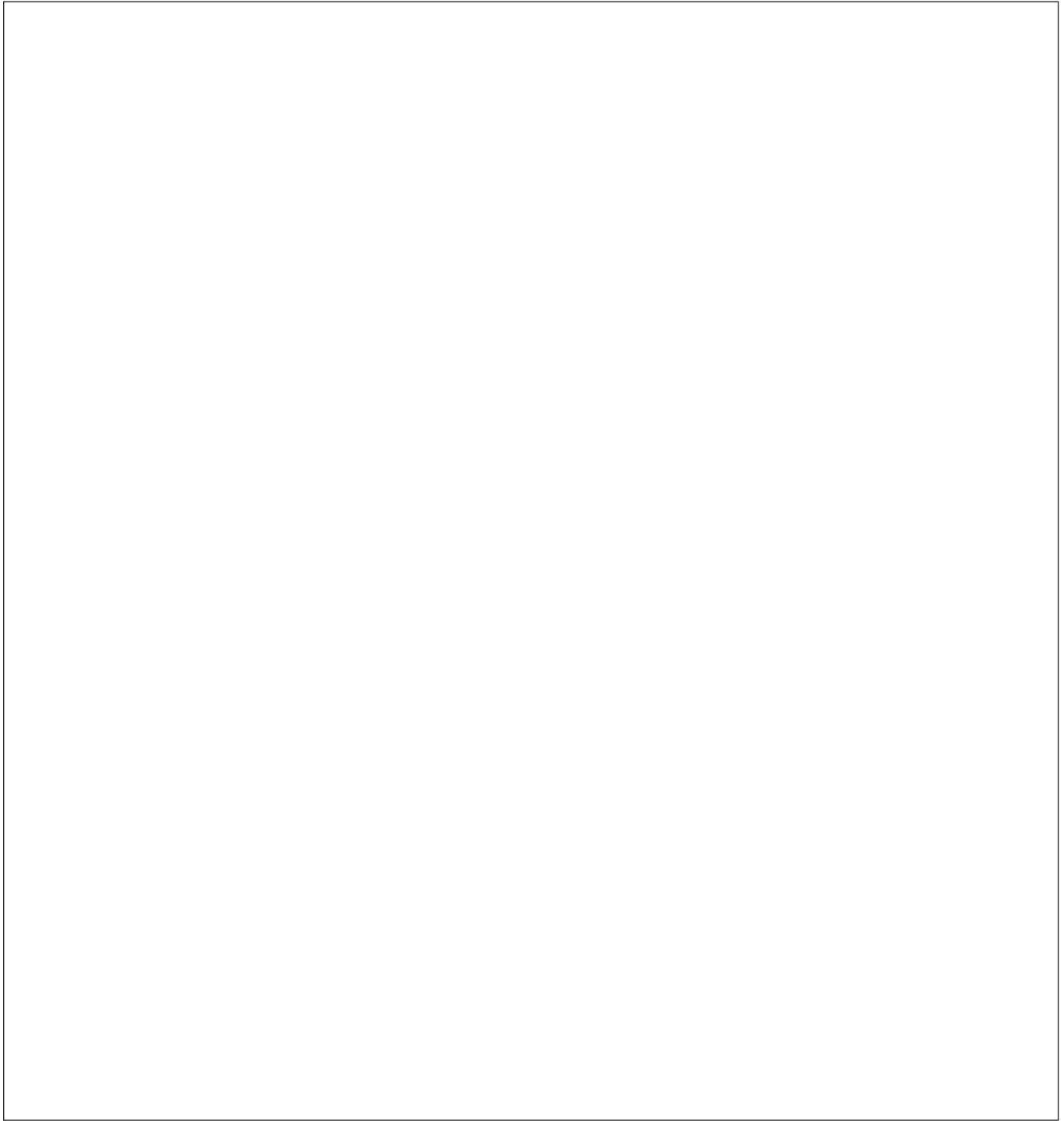
2. $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$



Directions

1. Five children are sitting at a table with 10 chairs. How many more children can sit at the table? Count the empty spots. Write the number to complete the number sentence. Draw a child in each empty spot. 2. Count the circles. Write the number in the first blank. Then draw a circle in each empty spot. Write the number in the second blank to make 10.

Name _____



Challenge

There are 10 pieces of fruit. Nine are apples. How many are oranges? Draw the fruit and write a number sentence.

Name _____

