

# Problem Solving Strategy and Test Prep

NCTM Standards 1, 2, 6, 7, 8, 9, 10  
Common Core State Standards 1.OA 2, 3

## Lesson Planner

### STUDENT OBJECTIVES

- To solve word problems by adding three whole numbers
- To use the associative property of addition to make a ten

### Problem Solving Strategy: Solve a Simpler Problem

### MATERIALS

Extended Activity

- A** **Discussing the Problem Solving Strategy: Solve a Simpler Problem** (CCRG p. CC 25)
- B** **Solving Problems by Applying the Strategy** (TG p. 944)

## Lesson Notes

Replace the current Problem Solving Strategy Activity A in **Lesson 13.10** with extended activity.

### About the Activity

Activity A has children solve word problems by adding three whole numbers while also using the associative property of addition to make a ten.

# Problem Solving Strategy

## A Discussing the Problem Solving Strategy: Solve a Simpler Problem

whole class



NCTM Standards 1, 2, 6, 7, 8, 9, 10  
CCSS 1.OA 1, 3

**Purpose** To share strategies for solving problems and focus on the problem solving strategy, *solve a simpler problem*

**Introduce** Discuss the different ways children have solved simpler problems throughout this chapter. Children may say that they solved simpler problems when they thought of a doubles fact to help them find the sum of a near doubles fact. They may say that they solved a simpler problem by finding groups of five and ten when adding numbers. Write the following problem on the board.

**Problem** Fidel picked 3 apples on Monday, 5 apples on Tuesday, and 7 apples on Wednesday. How many apples did Fidel pick?

Have children work independently or in pairs to solve the problem. If children do not know where to begin, encourage children to try to find a simpler problem to solve. You might suggest that they list the groups of apples they are trying to combine. Then suggest that they look for pairs of numbers that are easy to add.

$$\begin{array}{l} 3 + 5 + 7 = ? \\ 3 + 7 = 10 \\ 10 + 5 = 15 \end{array}$$

**Share** After children have had a chance to solve the problem, have them share strategies they used. Some children might have used counters to act out the problem. Others might have drawn a picture to show each group of apples.

### Talk Math

- ? What pairs of numbers are easy to add? Possible answers: Pairs of numbers with a sum of ten are easy to add, such as 7 and 3.
- ? How many groups of ten can you make? Explain. 1;  $7 + 3 = 10$ ; there are 5 apples left which are not enough to make another group of ten.
- ? How many apples did Fidel pick? 15 apples