

Name \_\_\_\_\_ Date \_\_\_\_\_

# Problem Solving: Work Backward

CA Standards  
MR 2.0, NS 2.0

Paul cut a piece of rope into 7 equal pieces. He then cut 4 centimeters off of one piece, making it 3 centimeters long. How long was the original piece of rope Paul had?

**Step 1** Add the 2 pieces of the cut piece together to get the length of 1 piece.

$$4 \text{ cm} + 3 \text{ cm} = 7 \text{ cm}$$

**Step 2** Multiply the length of 1 piece of rope by the total number of pieces.

$$7 \text{ cm} \times 7 = 49 \text{ cm}$$

**Solution:** Paul's original piece of rope was 49 centimeters long.

1. Molly bought 4 submarine sandwiches and 2 bags of chips at the deli. The total bill came to \$23. If each bag of chips cost \$2, how much was each sub sandwich?  
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2. Ted's baseball team won 8 games this season. They won 2 more than half that number last season. How many games did they win last season?  
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3. Rosa purchased 2 flats, or boxes, of zinnias and 4 flats of impatiens. She spent \$28 on flowers. If each flat of impatiens cost \$4, how much was each flat of zinnias?  
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**Writing Math** Don wants to reverse problem 3 above and work forward instead of backward. Show him how to reword the problem so the answer will be \$28.

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