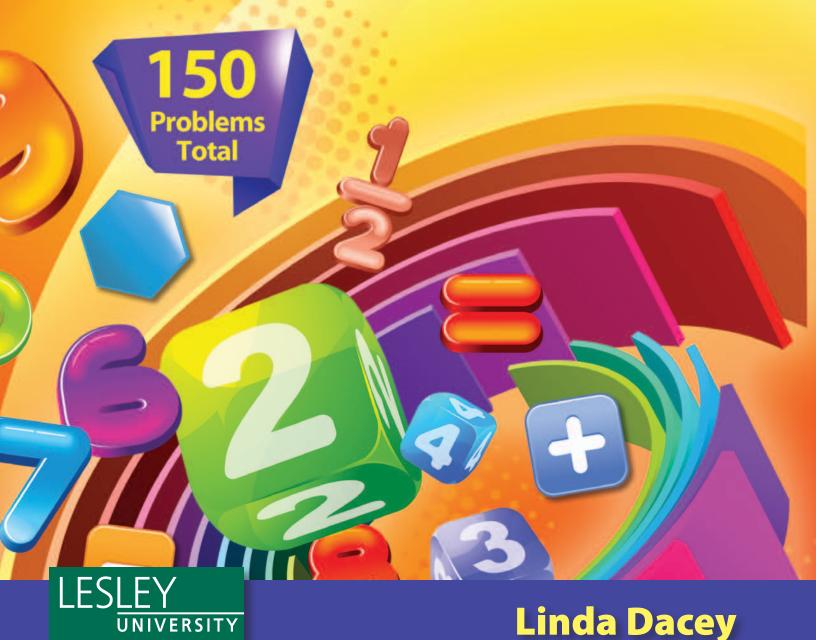


# Leveled

Math Problems

**Interactive** Whiteboard-**Compatible CD** 



# **Table of Contents**

Introduction	
Problem Solving in Mathematics Instruction	5
Understanding the Problem-Solving Process	7
Problem-Solving Strategies	. 13
Ask, Don't Tell	. 15
Differentiating with Leveled Problems	. 16
Management and Assessment	
How to Use This Book	
Correlations to Standards	
Leveled Problem-Solving Lessons	
Operations and Algebraic Thinking	
Who Is Who?	30
Design Blocks	32
Yard Sale	34
Equal Sums	36
Venn Diagrams	38
Books for Sale	40
Rubber Band Shapes	
Make a Face	44
Field Day	
Pose a Problem	
Bagfuls	
Salad Garden	52
Number and Operations in Base Ten	
What Am I Thinking?	
Same Sums	
Puzzlers	
Animal Stories	
Number Blocks	
Predict the Number	
Living on Main Street	
Machine Math	
Show It	
Where Is It?	74

# Table of Contents (cont.)

Number	and Operations in Base Ten (cont.)	
Finish	the Equations	76
Ring T	oss	78
Count	ing Along	80
The Le	e Family	82
From t	the Beginning	84
Measure	ement and Data	
All Ab	out Us	86
Last N	ames	88
Measu	re lt	90
Find th	ne Lengths	92
Lots of	f Ribbon	94
Finish	the Story	96
Step-b	y-Step	98
Game	Time	100
Tell a S	itory	102
Leo's D	Days	104
Coin C	Combos	106
Joke Sa	ale	108
All My	Coins	110
Money	y Matters	112
Geomet	r <b>y</b>	
What :	Shape Is Next?	114
What :	Shape Am I?	116
Triang	les and Squares	118
Dot So	quares	120
Shape	Symbols	122
How A	Nany Cubes?	124
Make	the Whole	126
Find th	ne Triangles	128
Appendice	S	
	ndix A: Student Response Form	130
Appen	ndix B: Individual Observation Form	131
Appen	ndix C: Group Observation Form	132
	ndix D: Record-Keeping Chart	
	ndix E: Answer Key	
	ndix F: References Cited	
Appen	ndix G: Contents of the Teacher Resource CD	140

# **Books for Sale**

## Standard

Solves real-world problems involving addition and subtraction of whole numbers

### **Overview**

Students identify the amount of money given to a clerk and the change received. Once students have determined the total cost, they must consider the books and prices shown and decide which ones were bought.

# **Problem-Solving Strategies**

- Count, compute, or write an equation
- Find information in a picture, list, table, graph, or diagram
- Guess and check or make an estimate

### **Materials**

- Books for Sale (page 41; booksforsale.pdf)
- play money (dollar bills) (optional)
- Student Response Form (page 130; studentresponse.pdf) (optional)

### **Activate**

- 1. Have students brainstorm different types of books. Encourage a variety of categories to be considered. If time allows, have students identify some of their favorite books in each category.
- 2. Display the following problem for students: I bought a mystery book for \$5.00 and a book about snakes for \$4.00. I gave the clerk \$10.00. What was my change? (\$1.00)
- **3.** Have students talk with a neighbor about the answer.
- **4.** Have students share their answers and strategies. Then, ask them why some people might call this a two-step problem.

## Solve

- 1. Distribute copies of *Books for Sale* to students. Have students work individually, in pairs, or in small groups.
- 2. Ask clarifying questions as students work to help them focus on the multiple steps of the problems. For example, ask What did you just find? What are you doing now? What will you do next?

### Debrief

- 1. How did you find the answer?
- **2.** Is there a different way to solve the problem?
- **3.** What is another problem we could create using these books and prices?

# Differentiate 🔾 🖈

Make the play money available to students who wish to act out these problems. Some students find it helpful to think of two-step problems as problems with a missing question. In these problems the missing question would be: *How much did the books cost?* 

The library had a book sale to make room for new books.



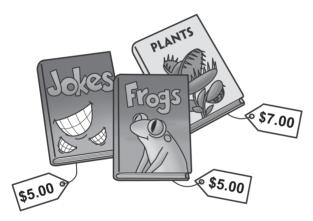
I bought two of these books.

I gave the clerk \$10.00.

I got \$3.00 back in change.

Which two books did I buy?

The library had a book sale to make room for new books.



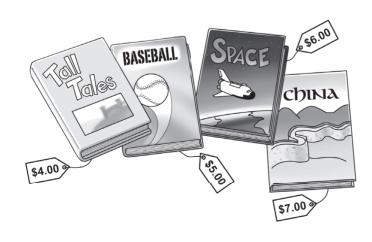
I bought two of these books.

I gave the clerk \$20.00.

I got \$8.00 back in change.

Which two books did I buy?

The library had a book sale to make room for new books.



I bought three of these books.

I gave the clerk \$20.00.

I got \$2.00 back in change.

Which three books did I buy?