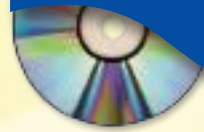




SHELL  
EDUCATION

Interactive  
Whiteboard-  
Compatible CD



Level

2

# 50 Leveled Math Problems

150  
Problems  
Total

LESLEY  
UNIVERSITY

Linda Dacey

# Table of Contents

## Introduction

<b>Problem Solving in Mathematics Instruction</b> .....	5
<b>Understanding the Problem-Solving Process</b> .....	7
<b>Problem-Solving Strategies</b> .....	13
<b>Ask, Don't Tell</b> .....	15
<b>Differentiating with Leveled Problems</b> .....	16
<b>Management and Assessment</b> .....	18
<b>How to Use This Book</b> .....	22
<b>Correlations to Standards</b> .....	26

## 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 .....	42
Make a Face .....	44
Field Day .....	46
Pose a Problem .....	48
Bagfuls .....	50
Salad Garden .....	52

### Number and Operations in Base Ten

What Am I Thinking? .....	54
Same Sums .....	56
Puzzlers .....	58
Animal Stories .....	60
Number Blocks .....	62
Figure It .....	64
Predict the Number.....	66
Living on Main Street .....	68
Machine Math.....	70
Show It .....	72
Where Is It?.....	74

# Table of Contents *(cont.)*

## Number and Operations in Base Ten *(cont.)*

Finish the Equations .....	76
Ring Toss .....	78
Counting Along.....	80
The Lee Family.....	82
From the Beginning.....	84

## Measurement and Data

All About Us.....	86
Last Names .....	88
Measure It.....	90
Find the Lengths.....	92
Lots of Ribbon.....	94
Finish the Story.....	96
Step-by-Step.....	98
Game Time.....	100
Tell a Story.....	102
Leo's Days .....	104
Coin Combos .....	106
Joke Sale.....	108
All My Coins.....	110
Money Matters .....	112

## Geometry

What Shape Is Next? .....	114
What Shape Am I? .....	116
Triangles and Squares .....	118
Dot Squares .....	120
Shape Symbols.....	122
How Many Cubes?.....	124
Make the Whole.....	126
Find the Triangles.....	128

## Appendices

Appendix A: Student Response Form.....	130
Appendix B: Individual Observation Form .....	131
Appendix C: Group Observation Form .....	132
Appendix D: Record-Keeping Chart .....	133
Appendix E: Answer Key .....	134
Appendix F: References Cited .....	139
Appendix 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?