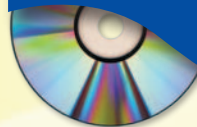




SHELL
EDUCATION

Interactive
Whiteboard-
Compatible CD



Level

5

50 Leveled Math Problems

150
Problems
Total



LESLEY
UNIVERSITY

Anne M. Collins

Table of Contents

Introduction

Problem Solving in Mathematics Instruction	5
Understanding the Problem-Solving Process	7
Problem-Solving Strategies	12
Ask, Don't Tell	14
Differentiating with Leveled Problems	15
Management and Assessment	18
How to Use This Book	22
Correlations to Standards	26

Leveled Problem-Solving Lessons

Operations and Algebraic Thinking

In What Order?	32
Order Counts.....	34
Number Patterns	36
Geometric Patterns	38
How Else Might I Look?	40
Where Am I?.....	42
How Do I Change?	44
What's Our Relation?	46

Number and Operations in Base Ten

Name My Number.....	48
Rectangular Products.....	50
Whatever Remains.....	52
Grouping or Sharing?	54
Dealing with Decimals	56
Expanded Form.....	58
Travel Expenses	60
Computing with Decimals	62
Dizzying Decimals	64
Estimating Decimals	66
About How Much?	68

Number and Operations—Fractions

Where Do I Fit?	70
Ribbons and Bows	72
Fractional Sums.....	74

Table of Contents *(cont.)*

What's the Difference?	76
It's Close to What?	78
More or Less	80
Fractional Areas	82
The Product Is Smaller	84
Fair Sharing, Equal Groups	86
Map Reading	88

Measurement and Data

Fill It Up	90
How Spacious Is It?	92
Cubic Views	94
Volume in Practice	96
What's My Unit?	98
Metrically Speaking	100
How Much Is There?	102
All in a Line	104
What Is the Favorite?	106
Stem-and-Leaf Plots	108
What Does It Mean?	110
The Plot Thickens	112
One or the Other	114

Geometry

Congruency	116
Classifying Figures	118
Plots A Lot	120
Flips, Slides, and Turns	122
What Is the Angle?	124
Sort It Out	126
Geometric Nets	128
Graph It	130

Appendices

Appendix A: Student Response Form	132
Appendix B: Observation Form	133
Appendix C: Record-Keeping Chart	134
Appendix D: Answer Key	135
Appendix E: References Cited	142
Appendix F: Contents of the Teacher Resource CD	143

Stem-and-Leaf Plots

Standards

- Understands that a summary of data should include where the middle is and how much spread there is around it
- Understands that data come in many different forms and that collecting, organizing, and displaying data can be done in many ways

Overview

These problems focus on representing data in stem-and-leaf plots.

Problem-Solving Strategy

Organize information in a picture, list, table, graph, or diagram

Materials

- *Stem-and-Leaf Plots* (page 109; stemleaf.pdf)
- connecting cubes
- pan balances or balance beams
- *Student Response Form* (page 132; studentresponse.pdf) (*optional*)

Activate

1. Have students explain to you everything they can about organizing data.
2. Ask students to make a list of their classmates' birthdays (use only the day, for example, for August 10, use only 10). Have students put the data in order from least to greatest.
3. Show students how to create a stem-and-leaf plot using some of the data they collected. Have students complete the plot for the rest of the data set.
4. Invite several students to share their solutions.

Solve

1. Distribute copies of *Stem-and-Leaf Plots* to students. Have students work alone, in pairs, or in small groups.
2. As students are working on the problems, pose clarifying questions to help you uncover students' thinking.

3. Ask students to explain the difference between the mean and median and to give an example of when it is more important to use the median and when it is more important to use the mean.

Debrief

1. Explain how the stem-and-leaf plot uses place value.
2. How might you check the median in a stem-and-leaf plot?

Differentiate



Consider assigning an exit-card task such as the following: *Define the term mean or average in your own words. Give an example to support your answer.*

Stem-and-Leaf Plots

The data in the table was gathered to display a school's basketball scores over the last season. The coach has asked you to make a stem-and-leaf plot for this data. How might it look?

65	73	68	75	73	82	68	57	74	61	67	35
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Stem-and-Leaf Plots

Mr. Wiley wants to know whether the mean, median, or mode will be the best measure to use to describe how well his students did on his math test. Which should he use and why?

1							
2		5					
3							
4		0					
5		5	5				
6		0	5				
7		0	0	0	5	5	5
8		0	0	0	5		
9		5	5				
10		0					

Stem-and-Leaf Plots

The Main Street School Eagles are competing against the Pumas to see which group can do the most squats in a two-minute period. They represented their data in a double stem-and-leaf plot.

Eagles	Stems	Pumas
	1	
	2	
5 4 4 3 3 2	3	0 1 2 4 4 8
8 8 8 7 6	4	1 2 2 6 7
6 4 3 1 1	5	1 3 3 3 4 5 6
5 4 3 2 1	6	0 0 1 4
	7	
	8	
	9	
	10	

- What is the mode for the Eagles? Pumas?
- What is the median for the Eagles? Pumas?
- What can you say about the two teams based on the data?