

C O N T E N T S

	Letter from Author Stephen Hake	xi
	Preface	xiii
	List of Materials	xxi
LESSON 1	Sequences • Digits	1
LESSON 2	Even and Odd Numbers	4
LESSON 3	Using Money to Illustrate Place Value	8
LESSON 4	Comparing Whole Numbers	12
LESSON 5	Naming Whole Numbers Through Hundreds • Dollars and Cents	16
LESSON 6	Adding One-Digit Numbers • Using the Addition Algorithm	20
LESSON 7	Writing and Comparing Numbers Through Hundred Thousands • Ordinal Numbers	25
LESSON 8	Subtraction Facts • Fact Families	30
LESSON 9	Practicing the Subtraction Algorithm	34
LESSON 10	Missing Addends	39
INVESTIGATION 1	Story Problems	43
LESSON 11	Story Problems About Combining	46
LESSON 12	Lines • Number Lines • Tally Marks	52
LESSON 13	Multiplication as Repeated Addition • Adding and Subtracting Dollars and Cents	58
LESSON 14	Missing Numbers in Subtraction	62
LESSON 15	Making a Multiplication Table	67
LESSON 16	Story Problems About Separating	72
LESSON 17	Multiplying by One-Digit Numbers	77
LESSON 18	Multiplying Three Factors • Missing Numbers in Multiplication	82
LESSON 19	Division Facts	87
LESSON 20	Three Ways to Show Division	91

<i>INVESTIGATION</i>	Fractions: Halves, Fourths, and Tenths	96
2		
<i>LESSON 21</i>	Problems About Equal Groups	101
<i>LESSON 22</i>	One-Digit Division with a Remainder • Divisibility by 2, 5, and 10	106
<i>LESSON 23</i>	Recognizing Halves	111
<i>LESSON 24</i>	Parentheses • Associative Property	115
<i>LESSON 25</i>	Listing the Factors of Whole Numbers	119
<i>LESSON 26</i>	Division Algorithm	123
<i>LESSON 27</i>	Reading Scales	128
<i>LESSON 28</i>	Measuring Time	132
<i>LESSON 29</i>	Multiplying by Multiples of 10 and 100	137
<i>LESSON 30</i>	Interpreting Pictures of Fractions and Percents	142
<i>INVESTIGATION</i>	Fractions: Thirds, Fifths, and Eighths	147
3		
<i>LESSON 31</i>	Pairs of Lines	151
<i>LESSON 32</i>	Angles • Polygons	155
<i>LESSON 33</i>	Rounding Numbers Using a Number Line	162
<i>LESSON 34</i>	Division with Zeros in the Quotient	166
<i>LESSON 35</i>	Problems About Comparing • Problems About Elapsed Time	170
<i>LESSON 36</i>	Classifying Triangles	175
<i>LESSON 37</i>	Drawing Pictures of Fractions	180
<i>LESSON 38</i>	Fractions and Mixed Numbers on a Number Line	184
<i>LESSON 39</i>	Comparing Fractions by Drawing Pictures	189
<i>LESSON 40</i>	Pictures of Mixed Numbers • Writing Quotients as Mixed Numbers, Part 1	193
<i>INVESTIGATION</i>	Measuring Angles	198
4		
<i>LESSON 41</i>	Adding and Subtracting Fractions with Common Denominators	202
<i>LESSON 42</i>	Short Division • Divisibility by 3, 6, and 9	207

<i>LESSON 43</i>	Writing Quotients as Mixed Numbers, Part 2 • Adding and Subtracting Whole Numbers, Fractions, and Mixed Numbers	212
<i>LESSON 44</i>	Measuring Lengths with a Ruler	217
<i>LESSON 45</i>	Classifying Quadrilaterals	223
<i>LESSON 46</i>	Stories About a Fraction of a Group	230
<i>LESSON 47</i>	Simplifying Mixed Measures	234
<i>LESSON 48</i>	Reading and Writing Whole Numbers in Expanded Notation	238
<i>LESSON 49</i>	Solving Two-Step Word Problems	242
<i>LESSON 50</i>	Finding an Average	246
<i>INVESTIGATION 5</i>	Organizing and Analyzing Data	251
<i>LESSON 51</i>	Multiplying by Two-Digit Numbers	258
<i>LESSON 52</i>	Naming Numbers Through Hundred Billions	263
<i>LESSON 53</i>	Perimeter • Measures of a Circle	268
<i>LESSON 54</i>	Dividing by Multiples of 10	273
<i>LESSON 55</i>	Multiplying by Three-Digit Numbers	277
<i>LESSON 56</i>	Multiplying by Three-Digit Numbers That Include Zero	280
<i>LESSON 57</i>	Simple Probability	284
<i>LESSON 58</i>	Writing Quotients as Mixed Numbers, Part 3	289
<i>LESSON 59</i>	Fractions Equal to 1 • Subtracting a Fraction from 1	293
<i>LESSON 60</i>	Finding a Fraction to Complete a Whole	298
<i>INVESTIGATION 6</i>	Performing Probability Experiments	302
<i>LESSON 61</i>	Using Letters to Identify Geometric Figures	307
<i>LESSON 62</i>	Estimating Arithmetic Answers	313
<i>LESSON 63</i>	Subtracting a Fraction from a Whole Number Greater than 1	317
<i>LESSON 64</i>	Using Money to Model Decimal Numbers	322
<i>LESSON 65</i>	Decimal Parts of a Meter	328
<i>LESSON 66</i>	Reading a Centimeter Scale	333

<i>LESSON 67</i>	Writing Tenths and Hundredths as Decimal Numbers	338
<i>LESSON 68</i>	Naming Decimal Numbers	344
<i>LESSON 69</i>	Fractions of a Second • Comparing and Ordering Decimal Numbers	349
<i>LESSON 70</i>	Writing Equivalent Decimal Numbers • Writing Cents Correctly	354
<i>INVESTIGATION 7</i>	Pattern Recognition	359
<i>LESSON 71</i>	Fractions, Decimals, and Percents	365
<i>LESSON 72</i>	Area, Part 1	371
<i>LESSON 73</i>	Adding and Subtracting Decimal Numbers	377
<i>LESSON 74</i>	Converting Units of Length	382
<i>LESSON 75</i>	Changing Improper Fractions to Whole or Mixed Numbers	386
<i>LESSON 76</i>	Multiplying Fractions	391
<i>LESSON 77</i>	Converting Units of Weight and Mass	397
<i>LESSON 78</i>	Exponents and Powers	401
<i>LESSON 79</i>	Finding Equivalent Fractions by Multiplying by 1	407
<i>LESSON 80</i>	Prime and Composite Numbers	412
<i>INVESTIGATION 8</i>	Displaying Data	417
<i>LESSON 81</i>	Reducing Fractions, Part 1	425
<i>LESSON 82</i>	Greatest Common Factor (GCF)	431
<i>LESSON 83</i>	Properties of Geometric Solids	435
<i>LESSON 84</i>	Mean, Median, Mode, and Range	439
<i>LESSON 85</i>	Converting Units of Capacity	444
<i>LESSON 86</i>	Multiplying Fractions and Whole Numbers	448
<i>LESSON 87</i>	Using Manipulatives and Sketches to Divide Fractions	453
<i>LESSON 88</i>	Transformations	458
<i>LESSON 89</i>	Finding a Square Root	463
<i>LESSON 90</i>	Reducing Fractions, Part 2	467

<i>INVESTIGATION</i> 9	Line Graphs	472
<i>LESSON</i> 91	Simplifying Improper Fractions	476
<i>LESSON</i> 92	Dividing by Two-Digit Numbers	481
<i>LESSON</i> 93	Comparative Bar Graphs	486
<i>LESSON</i> 94	Using Estimation When Dividing by Two-Digit Numbers	490
<i>LESSON</i> 95	Reciprocals	494
<i>LESSON</i> 96	Using Reciprocals to Divide Fractions	499
<i>LESSON</i> 97	Ratios	504
<i>LESSON</i> 98	Negative Numbers	508
<i>LESSON</i> 99	Adding and Subtracting Whole Numbers and Decimal Numbers	512
<i>LESSON</i> 100	Simplifying Decimal Numbers	517
<i>INVESTIGATION</i> 10	Graphing Points on a Coordinate Plane	521
<i>LESSON</i> 101	Rounding Mixed Numbers to the Nearest Whole Number	524
<i>LESSON</i> 102	Subtracting Decimal Numbers Using Zeros	528
<i>LESSON</i> 103	Volume	532
<i>LESSON</i> 104	Rounding Decimal Numbers to the Nearest Whole Number	537
<i>LESSON</i> 105	Symmetry	542
<i>LESSON</i> 106	Reading and Ordering Decimal Numbers Through Ten-Thousandths	548
<i>LESSON</i> 107	Using Percent to Name Part of a Group	554
<i>LESSON</i> 108	Schedules	559
<i>LESSON</i> 109	Multiplying Decimal Numbers	564
<i>LESSON</i> 110	Multiplying Decimal Numbers: Using Zeros as Placeholders	569
<i>INVESTIGATION</i> 11	Scale Drawings	573
<i>LESSON</i> 111	Multiplying Decimal Numbers by 10, by 100, and by 1000	576

LESSON 112	Finding the Least Common Multiple of Two Numbers	580
LESSON 113	Writing Mixed Numbers as Improper Fractions	584
LESSON 114	Problems with No Solutions or Many Solutions	589
LESSON 115	Area, Part 2	594
LESSON 116	Finding Common Denominators to Add, Subtract, and Compare Fractions	598
LESSON 117	Dividing a Decimal Number by a Whole Number	603
LESSON 118	Using Zero as a Placeholder • Dividing Decimal Numbers by 10, by 100, and by 1000	608
LESSON 119	Dividing by a Decimal Number	613
LESSON 120	Multiplying Mixed Numbers	617
INVESTIGATION 12	Tessellations	621
TOPIC A	Roman Numerals Through 39	629
TOPIC B	Roman Numerals Through Thousands	631
TOPIC C	Base 5	632
	Supplemental Practice Problems for Selected Lessons	635
	Glossary	665
	Index	697