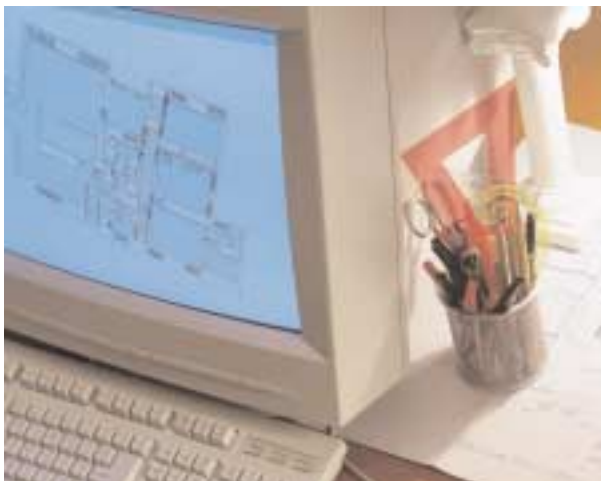


Contents

A Tour of Your Textbook	x
Problem Solving	xvi
Get Ready for Grade 7	
1 Fractions, Metric Units, Estimation	2
2 Multiplying and Dividing Decimals, Estimation	4
3 Patterns With Natural Numbers, Fractions, and Decimals	6

CHAPTER 1

Measurement and Number Sense	8
Get Ready	10
1.1 Perimeters of Two-Dimensional Shapes	12
1.2 Area of a Parallelogram	18
1.3 Area of a Triangle	22
1.4 Apply the Order of Operations	26
1.5 Area of a Trapezoid	30
1.6 Draw Trapezoids	34
Use Technology	
Construct and Manipulate a Trapezoid Using <i>The Geometer's Sketchpad</i> ®	37
1.7 Composite Shapes	40
Review	46
Practice Test	48



CHAPTER 2

Two-Dimensional Geometry	50
Get Ready	52
2.1 Classify Triangles	54
2.2 Classify Quadrilaterals	60
2.3 Congruent Figures	66
2.4 Congruent and Similar Figures	70
Use Technology	
Identify Similar Triangles Using <i>The Geometer's Sketchpad</i> ®	75
Review	76
Practice Test	78
Task: Create a Logo	81



CHAPTER 3

Fraction Operations	82
Get Ready	84
3.1 Add Fractions Using Manipulatives	86
3.2 Subtract Fractions Using Manipulatives	90
3.3 Find Common Denominators	94
3.4 Add and Subtract Fractions Using a Common Denominator	98
3.5 More Fraction Problems	104
Review	108
Practice Test	110

CHAPTER 4

Probability and Number Sense	112
Get Ready	114
4.1 Introducing Probability	116
4.2 Organize Outcomes	121
4.3 Use Outcomes to Predict Probabilities	126
4.4 Extension: Simulations	131
4.5 Apply Probability in Sports and Games	134
Review	140
Practice Test	142
Task: Develop a Fair Game	145
Chapters 1–4 Review	146

CHAPTER 5

Fractions, Decimals, and Percents	148
Get Ready	150
5.1 Fractions and Decimals	152
5.2 Calculate Percents	158
5.3 Fractions, Decimals, and Percents	162
5.4 Apply Fractions, Decimals, and Percents	166
Review	172
Practice Test	174

CHAPTER 6

Patterning	176
Get Ready	178
6.1 Investigate and Describe Patterns	180
6.2 Organize, Extend, and Make Predictions	185
6.3 Explore Patterns on a Grid or in a Table of Values	190
6.4 Express Simple Relationships	195
Review	200
Practice Test	202
Task: Fold Fractals	205

CHAPTER 7

Exponents	206
Get Ready	208
7.1 Understand Exponents	210
7.2 Represent and Evaluate Square Roots	214
7.3 Understand the Use of Exponents	218
7.4 Fermi Problems	224
Review	228
Practice Test	230



CHAPTER 8

Three-Dimensional Geometry and Measurement	232
Get Ready	234
8.1 Explore Three-Dimensional Figures	236
8.2 Sketch Front, Top, and Side Views	242
8.3 Draw and Construct Three-Dimensional Figures Using Nets	247
8.4 Surface Area of a Rectangular Prism	252
8.5 Volume of a Rectangular Prism	258
Review	262
Practice Test	264
Task: Design a Stage	267
Chapters 5–8 Review	268

CHAPTER 9

Data Management: Collection and Display	270
Get Ready	272
9.1 Collect and Organize Data	274
9.2 Stem-and-Leaf Plots	280
9.3 Circle Graphs	286
9.4 Use Databases to Find Data	292
9.5 Use a Spreadsheet to Display Data	298
Review	304
Practice Test	306

**CHAPTER 10**

Data Management: Analysis and Evaluation	308
Get Ready	310
10.1 Analyse Data and Make Inferences	312
10.2 Measures of Central Tendency	318
Use Technology	
Find Measures of Central Tendency With a Spreadsheet	324
10.3 Bias	326
10.4 Evaluate Arguments Based on Data	331
Review	336
Practice Test	338
Task: Plan a Television Schedule	341

**CHAPTER 11**

Integers	342
Get Ready	344
11.1 Compare and Order Integers	346
11.2 Explore Integer Addition	352
11.3 Adding Integers	356
11.4 Explore Integer Subtraction	362
11.5 Extension: Subtracting Integers	368
11.6 Integers Using a Calculator	374
Review	378
Practice Test	380



CHAPTER 12

Patterning and Equations	382
Get Ready	384
12.1 Variables and Expressions	386
12.2 Solve Equations by Inspection	392
12.3 Model Patterns With Equations	398
12.4 Solve Equations by Systematic Trial	404
12.5 Model With Equations	410
Review	416
Practice Test	418
Task: Magic Squares	421
Chapters 9–12 Review	422

CHAPTER 13

Geometry of Transformations	424
Get Ready	426
13.1 Explore Transformations	428
13.2 Investigate Frieze Patterns With <i>The Geometer's Sketchpad®</i>	434
13.3 Extension: Translations on a Coordinate Grid	436
13.4 Identify Tiling Patterns and Tessellations	442
Use Technology Create Tiling Patterns Using <i>The Geometer's Sketchpad®</i>	446
13.5 Construct Translational Tessellations	448
Use Technology Tessellate by Translation Using <i>The Geometer's Sketchpad®</i>	450
13.6 Construct Rotational Tessellations	452
Use Technology Tessellate by Rotation Using <i>The Geometer's Sketchpad®</i>	454
Review	456
Practice Test	458
Answers	460
Glossary	481
Index	488

