

BRIEF CONTENTS

- 1 A Review of Basic Skills 1
- 2 Expressions, Formulas, and Functions 115
- 3 Organizing Data Using Tables and Graphs 209
- 4 Describing Data 279
- 5 Sets and Counting Principles 359
- 6 Probability 421
- 7 Tables, Graphs, and Lines 495
- 8 The Normal Curve and Hypothesis Testing 619



CONTENTS

1 A Review of Basic Skills 1

- 1.1 An Introduction to Statistics 2
- 1.2 Decimal Review 15
- 1.3 Operations with Decimals: Addition and Subtraction 29
- 1.4 Operations with Decimals: Multiplication and Division 42
- 1.5 Number Lines, Inequalities, and Intervals 53
- 1.6 Compound Inequalities 67
- 1.7 Exponents 81
- 1.8 Square Roots 91
- Chapter 1 Summary & Review 99
- Chapter 1 Test 112

2 Expressions, Formulas, and Functions 115

- 2.1 Evaluating Numerical Expressions Using a Calculator 116
- 2.2 Evaluating Expressions Involving Square Roots and e Using a Calculator 128
- 2.3 Evaluating Expressions and Formulas from Statistics 141
- 2.4 Sigma Notation 156
- 2.5 $P(x)$ Notation 167
- 2.6 Algebra Review: Expressions and Equations 178
- 2.7 Algebra Review: Inequalities 189
- Chapter 2 Summary & Review 196
- Chapter 2 Test 207

3 Organizing Data Using Tables and Graphs 209

- 3.1 Percent 210
- 3.2 Frequency Distribution Tables 228
- 3.3 Histograms 243
- Chapter 3 Summary & Review 258
- Chapter 3 Test 269
- Cumulative Review Chapters 1–3 272

4 Describing Data 279

- 4.1 The Mean 280
- 4.2 The Median, Mode, and Midrange 295
- 4.3 Range, Variance, and Standard Deviation 309
- 4.4 Percentiles, Quartiles, and Boxplots 324
- Chapter 4 Summary & Review 342
- Chapter 4 Test 355

5 Sets and Counting Principles 359

- 5.1 Sets 360
- 5.2 Factorial Notation 371
- 5.3 Permutations and Combinations 383
- 5.4 Fraction Review 394
- Chapter 5 Summary & Review 408
- Chapter 5 Test 418

6 Probability 421

- 6.1 Introduction to Probability – Part 1 422
- 6.2 Introduction to Probability – Part 2 435
- 6.3 Probability of Events Combined with *And* 447
- 6.4 Probability of Events Combined with *Or* 462
- Chapter 6 Summary & Review 476
- Chapter 6 Test 486
- Cumulative Review Chapters 4–6 489

7 Tables, Graphs, and Lines 495

- 7.1 Reading Tables–Part 1 496
- 7.2 Reading Tables–Part 2 511
- 7.3 Graphing Skills 525
- 7.4 Area 541
- 7.5 Lines 556
- 7.6 Scatterplots and Regression 574
- Chapter 7 Summary & Review 593
- Chapter 7 Test 615

8 The Normal Curve and Hypothesis Testing 619

- 8.1 The Standard Normal Curve and Table 620
- 8.2 Standard and Nonstandard Normal Curves 636
- 8.3 Hypothesis Testing 654
- Chapter 8 Summary & Review 662
- Chapter 8 Test 674
- Cumulative Review Chapters 7–8 676

Selected Answers A-1

Index I-1