

CHAPTER 5



4-3	Identities and Algebraic Transformation of Expressions	162
4-4	Arcsine, Arctangent, Arccosine, and Trigonometric Equations	168
4-5	Parametric Function	176
4-6	Inverse Trigonometric Relation Graphs	184
4-7	Chapter Review and Test	191

Properties of Combined Sinusoids	195
5-1 Introduction to Combinations of Sinusoids	197
5-2 Composite Argument and Linear Combination Properties	198
5-3 Other Composite Argument Properties	205
5-4 Composition of Ordinates and Harmonic Analysis	213
5-5 The Sum and Product Properties	223
5-6 Double and Half Argument Properties	231
5-7 Chapter Review and Test	239

CHAPTER 6



Triangle Trigonometry	247
6-1 Introduction to Oblique Triangles	249
6-2 Oblique Triangles: Law of Cosines	250
6-3 Area of a Triangle	255
6-4 Oblique Triangles: Law of Sines	259
6-5 The Ambiguous Case	263
6-6 Vector Addition	266
6-7 Real-World Triangle Problems	274
6-8 Chapter Review and Test	280
6-9 Cumulative Review, Chapters 1–6	286

CHAPTER 7



Properties of Elementary Functions	291
7-1 Shapes of Function Graphs	293
7-2 Identifying Functions from Graphical Patterns	294
7-3 Identifying Functions from Numerical Patterns	304
7-4 Properties of Logarithms	314
7-5 Logarithms: Equations and Other Bases	321
7-6 Logarithmic Functions	328
7-7 Logistic Functions for Restrained Growth	336
7-8 Chapter Review and Test	343

CHAPTER 8



Fitting Functions to Data	351
8-1 Introduction to Regression for Linear Data	353
8-2 Deviations, Residuals, and the Correlation Coefficient	354
8-3 Regression for Nonlinear Data	360
8-4 Linearizing Data and Logarithmic Graph Paper	367
8-5 Residual Plots and Mathematical Models	381
8-6 Chapter Review and Test	389