## Chapter 0

0.3 Linear Equations and Inequalities
0.4 Absolute Value Equations
and Inequalities
0.6 Factoring
0.7 Quadratic Equations
0.8 Rational Expressions and Equations
0.9 Radicals and Equations

#### **Chapter 1 Relations and Functions**

1.3 Introduction to Functions	43
1.4 Function Notation	55
1.5 Function Arithmetic	76
1.6 Graphs of Functions	93
1.7 Transformations	120

# Chapter 2: Linear and Quadratic Functions

2.1 Linear Functions	151
2.2 Absolute Value Functions	173
2.3 Quadratic Functions	188
2.4 Inequalities with Absolute Value	
and Quadratic Functions	208
2.5 Regression	225

### **Chapter 3: Polynomial Functions**

3.1 Graphs of Polynomials	235
3.2 The Factor Theorem and	
the Remainder Theorem	257
3.3 Real Zeros of Polynomial	269
3.4 Complex Zeros and the Fundamenta	al
Theorem of Algebra	287

#### **Chapter 4: Rational Functions**

4.1 Introduction to Rational Functions	301
4.2 Graphs of Rational Functions	320
4.3 Rational Inequalities and Applications	342

# Chapter 5: Further Topics in Functions

5.1	Function Composition	359
5.2	Inverse Functions	378

## Chapter 6: Exponential and Logarithmic Functions

6.1 Introduction to Exponential	
Functions	417
6.2 Properties of Logarithms	437
6.3 Exponential Functions	
and inequalities	448
6.4 Logarithmic Equations	
and Inequalities	459
6.5 Applications of Exponential	
and logarithmic functions	469
8.1 Systems of Linear Equations:	
Gaussian Elimination	549
8.2 System of Linear Equations:	
Augmented Matrices	567
8.3 Matrix Arithmetic	578
8.4 System of Linear Equations:	
Matrix Inverses	598
Chapter 9 Sequences	
9.1 Sequences	651
9.2 Summation Notation	661