

Table of Contents

	Unit	Topic	Page
Chapter 1.	Radicals		8
	1.1	Operations with Radicals (-)	8
	1.2	Rationalize Monomial Denominators (-)	14
	1.3	Rationalize Binomial Denominators	16
	1.4	Solve Radical Equations	18
	1.5	n th Roots	22
Chapter 2.	Exponents		28
	2.1	Negative Exponents	28
	2.2	Rational Exponents	31
Chapter 3.	Complex Numbers		37
	3.1	Imaginary and Complex Numbers	37
	3.2	Operations with Complex Numbers	40
Chapter 4.	Quadratic Functions		42
	4.1	Solve Quadratic Equations	42
	4.2	Graphs of Quadratic Functions	47
	4.3	Focus and Directrix (-)	52
Chapter 5.	Polynomial Functions		57
	5.1	Operations with Functions	57
	5.2	Long Division	59
	5.3	Synthetic Division	64
	5.4	Remainder Theorem	67
	5.5	Factor Polynomials	69
	5.6	Solve Polynomial Equations	74
	5.7	Properties of Graphs	80
	5.8	Graph Polynomial Functions	85
	5.9	Polynomial Identities (-)	87
Chapter 6.	Rational Functions		88
	6.1	Undefined Expressions	88
	6.2	Simplify Rational Expressions	90
	6.3	Multiply and Divide Rational Expressions	94
	6.4	Add and Subtract Rational Expressions	99
	6.5	Solve Rational Equations	104
	6.6	Model Rational Expressions and Equations	110
	6.7	Graphs of Rational Functions	114

Chapter 7.	Exponential Functions	118
	7.1 Solve Simple Exponential Equations	118
	7.2 Rewrite Exponential Expressions	121
	7.3 Graphs of Exponential Functions	122
	7.4 Exponential Regression	128
	7.5 Periodic Growth or Decay	130
	7.6 Continuous Growth or Decay	133
Chapter 8.	Logarithms.....	135
	8.1 Introduction to Logarithms	135
	8.2 Common Logarithms	137
	8.3 Natural Logarithms	139
	8.4 Graphs of Parent Log Functions	142
	8.5 Evaluate Loan Formulas	145
Chapter 9.	Trigonometric Functions	149
	9.1 Trigonometric Ratios	149
	9.2 Radians	152
	9.3 Unit Circle and Reference Angles	155
	9.4 Trig Functions on Coordinate Grids	164
	9.5 Pythagorean Identity	167
	9.6 Graphs of Parent Trig Functions	169
	9.7 Transform Trigonometric Graphs	174
	9.8 Model Trigonometric Functions	182
	9.9 Graph Trigonometric Functions	185
Chapter 10.	Compare Functions	190
	10.1 Average Rate of Change	190
	10.2 Even and Odd Functions	193
	10.3 Inverse Functions	196
	10.4 Transformations of Functions	203
Chapter 11.	Systems	207
	11.1 Linear Systems in Three Variables	207
	11.2 Systems of Polynomial Functions	210
	11.3 Equations of Circles	214
	11.4 Circle-Linear Systems	216
	11.5 Other Systems	218
Chapter 12.	Sequences and Series	221
	12.1 Arithmetic and Geometric Sequences	221
	12.2 Recursively Defined Sequences	224
	12.3 Evaluate a Summation in Sigma Notation	226
	12.4 Write a Series in Sigma Notation	230
	12.5 Find the Partial Sum of a Series	233

Chapter 13.	Probability	236
	13.1 Theoretical and Empirical Probability	236
	13.2 Probability Involving And or Or	240
	13.3 Conditional Probability	244
Chapter 14.	Statistics.....	249
	14.1 Observational Studies and Experiments	249
	14.2 Statistical Bias	251
	14.3 Normal Distribution	254
	14.4 Confidence Interval	258
	14.5 Mean Difference (-)	264
Appendix I.	Index	268