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Scope and Sequence

UNIT A	OPERATIONS AND EXPRESSIONS	SPECIAL COMPONENTS
Module 1	Getting Ready for Algebra	
1.1	Defining Sets and Real Numbers	Calculator Exercises
1.2	Simplifying Expressions with Integers	
1.3	Simplifying Expressions with Rational Numbers	
1.4	Simplifying Expressions with Exponents and Roots	
1.5	Applying the Order of Operations	
Module 2	Writing And Simplifying Algebraic Expressions	
2.1	Using the Language of Algebra	Manipulatives (Algebra Tiles)
2.2	Translating Word Phrases into Algebraic Expressions	
2.3	Identifying Algebraic Properties	Manipulatives (Algebra Tiles)
2.4	Combining Like Terms	Manipulatives (Algebra Tiles)
2.5	Evaluating Expressions	
UNIT B	EQUATIONS AND INEQUALITIES OF ONE VARIABLE	
Module 3	Solving Linear Equations Of One Variable	
3.1	Identifying Properties of Equality	
3.2	Solving Equations by Inspection	Manipulatives (Beans)
3.3	Solving One-Step Linear Equations	Manipulatives (Algebra Tiles)
3.4	Solving Two-Step Linear Equations	Manipulatives (Algebra Tiles)
3.5	Solving Multi-Step Linear Equations	Manipulatives (Algebra Tiles)
3.6	Rewriting Formulas	Applications
Module 4	Solving Problems Using Linear Equations Of One Variable	
4.1	Translating Sentences into Algebraic Equations	Applications
4.2	Solving Consumer/Business Problems Using Equations of One Variable	Applications Calculator Exercises
4.3	Solving Geometry Problems Using Equations of One Variable	Applications
4.4	Solving Mixture and Rate Problems Using Equations of One Variable	Applications
Module 5	Solving Linear Inequalities Of One Variable	
5.1	Solving Linear Inequalities by Inspection	
5.2	Solving One-Step Linear Inequalities	
5.3	Solving Two-Step Linear Inequalities	
5.4	Solving Multi-Step Linear Inequalities	
5.5	Solving Conjunction Inequalities	
5.6	Solving Disjunction Inequalities	
5.7	Solving Problems Using Inequalities of One Variable	Applications
Module 6	Solving Absolute Value Equations And Inequalities	
6.1	Solving Basic Absolute Value Equations	
6.2	Solving Advanced Absolute Value Equations	
6.3	Solving Inequalities Using "Absolute Value Is Less Than"	
6.4	Solving Inequalities Using "Absolute Value Is Greater Than"	
6.5	Solving Problems Using Absolute Value Equations and Inequalities	Applications
UNIT C	EQUATIONS AND INEQUALITIES OF TWO VARIABLES AND FUNCTIONS	
Module 7	Solving Linear Equations and Inequalities of Two Variables	
7.1	Defining Linear Equations of Two Variables and Their Solutions	
7.2	Graphing Linear Equations of Two Variables	
7.3	Graphing Linear Inequalities of Two Variables	
7.4	Solving Consumer/Business Problems Using Linear Equations and Inequalities of Two Variables	Applications
Module 8	Writing Linear Equations of Two Variables	
8.1	Finding Slope	
8.2	Writing Equations of Lines, Given the Slope and y-Intercept	
8.3	Writing Equations of Lines, Given a Point and the Slope or Two Points	
8.4	Solving Linear Equations in Two Variables When Parameters Are Changed	



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Module 9	Using Functions	
9.1	Defining Relations and Functions	
9.2	Evaluating Functions	
9.3	Writing Functions from Patterns	
9.4	Graphing Functions	
9.5	Solving Problems Using Functions	Applications
9.6	Evaluating Composite Functions	
Module 10	Solving Systems Of Linear Equations And Inequalities	
10.1	Solving Systems of Linear Equations by Graphing	Calculator Exercises
10.2	Solving Systems of Linear Equations by Elimination	
10.3	Solving Systems of Linear Equations by Substitution	
10.4	Solving Systems of Linear Inequalities by Graphing	
10.5	Solving Problems Using Systems of Linear Equations and Inequalities	Applications
UNIT D	POLYNOMIALS AND QUADRATIC EQUATIONS	
Module 11	Simplifying Algebraic Expressions With Polynomials	
11.1	Applying Rules of Exponents	
11.2	Using Scientific Notation	Calculator Exercises
11.3	Adding and Subtracting Polynomials	Manipulatives (Algebra Tiles)
11.4	Multiplying Monomials and Binomials	Manipulatives (Algebra Tiles)
11.5	Multiplying Polynomials	
11.6	Dividing Polynomials by Monomials	
11.7	Dividing Polynomials Using Long Division	
Module 12	Simplifying Algebraic Expressions By Factoring Polynomials	
12.1	Factoring by Removing the Greatest Common Factor	
12.2	Factoring by Grouping	
12.3	Factoring the Difference of Two Squares	Manipulatives (Algebra Tiles)
12.4	Factoring $x^2 + b x + c$	Manipulatives (Algebra Tiles)
12.5	Factoring $a x^2 + b x + c$	Manipulatives (Algebra Tiles)
12.6	Factoring Using Several Methods	
12.7	Dividing Polynomials Using Factoring	Manipulatives (Algebra Tiles)
Module 13	Solving Quadratic Equations of One Variable	
13.1	Defining Quadratic Equations of One Variable	Manipulatives (Algebra Tiles)
13.2	Solving Quadratic Equations by Evaluating Square Roots	
13.3	Solving Quadratic Equations by Factoring	Calculator Exercises
13.4	Solving Quadratic Equations by Completing the Square	
13.5	Solving Quadratic Equations by the Quadratic Formula	
13.6	Solving Problems Using Quadratic Equations of One Variable	Applications
Module 14	Graphing Quadratic Relations	
14.1	Graphing Simple Quadratic Relations	Calculator Exercises
14.2	Graphing Quadratic Relations by Analysis	Calculator Exercises
14.3	Solving Problems Using Quadratic Graphs	Applications Calculator Exercises
UNIT E	RATIONAL AND RADICAL EQUATIONS	
Module 15	Simplifying Rational Expressions	
15.1	Finding Restricted Values of Rational Expressions	
15.2	Simplifying Rational Expressions	
15.3	Multiplying and Dividing Rational Expressions	
15.4	Adding and Subtracting Rational Expressions	
Module 16	Solving Rational Equations	
16.1	Solving Rational Equations	Challenge Problems Applications
16.2	Solving Problems Using Direct Variation	Calculator Exercises
16.3	Solving Problems Using Inverse Variation	Applications Calculator Exercises
16.4	Solving Various Types of Problems Using Rational Equations	Applications
Module 17	Simplifying Radical Expressions	
17.1	Simplifying Radicals	
17.2	Adding and Subtracting Radicals	
17.3	Multiplying Radicals	



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17.4	Dividing Radicals	
Module 18	Solving Radical Equations	
18.1	Solving One-Step Radical Equations	
18.2	Solving Multi-Step Radical Equations	
18.3	Solving Problems Using Radical Equations	Applications
18.4	Solving Problems Using the Distance and Midpoint Formulas	Applications Manipulatives (Geoboards)
UNIT F	DATA ANALYSIS, PROBABILITY, STATISTICS	Special Components
Module 19	Analyzing Data and Statistics	
19.1	Finding Mean, Median, and Mode	Applications Manipulatives (Beans)
19.2	Interpreting Graphs of Data	Applications
19.3	Analyzing and Describing Graphs	Applications
19.4	Finding a Line of Best Fit	Applications Manipulatives (Geoboards) Calculator Exercises
19.5	Solving Statistics Problems	Applications
Module 20	Solving Problems Using Probability, Statistics, And Discrete Math	
20.1	Finding Permutations and Combinations	Applications Calculator Exercises
20.2	Solving Basic Probability Problems	Applications
20.3	Solving Advanced Probability Problems	Applications
20.4	Solving Discrete Mathematics Problems	Applications