	UNIT 1 (9 DAYS)	UNIT 2 (17 DAYS)	UNIT 3 (13 DAYS)	UNIT 4 (11 DAYS)	UNIT 5 (14 DAYS)	UNIT 6 (12 DAYS)	UNIT 7 (14 DAYS)	UNIT 8 (12 DAYS)	UNIT 9 (17 DAYS)	UNIT 10 (16 DAYS)	UNIT 11 (17 DAYS)	UNIT 12 (7 DAYS)
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A. PREREQUISITES												
1. Skills Acquired by Students in a Previous Course and Refined in This Course												
a. Set up and solve problems following the correct order of operations (including proportions, percent, and absolute value) with rational numbers (integers, fractions, decimals)												
b. Find the greatest common factor and least common multiple of a set of whole numbers												
c. Use rational numbers to demonstrate knowledge of additive and multiplicative inverses												
d. Simplify ratios												
e. Use scientific notation when working with very large or very small quantities												
f. Add, subtract, multiply, and divide rational numbers, including integers, fractions, and decimals, without calculators												
B. EXPLORING THE SKILLS AND STRATEGIES UNDERLYING MATHEMATICS												
1. Mathematical Processes Learned in the Context of Increasingly Complex Mathematical and Real-World Problems (Note: These mathematical processes are the same for Algebra I, Geometry, Algebra II, and Precalculus.)												
a. Apply problem-solving skills (e.g., identifying irrelevant or missing information, making conjectures, extracting mathematical meaning, recognizing and performing multiple steps when needed, verifying results in the context of the problem) to the solution of real-world problems	X	X	X	X	X	X	X	X	X	X	X	X
b. Use a variety of strategies to set up and solve increasingly complex problems	X	X	X	X	X	X	X	X	X	X	X	X
c. Represent data, real-world situations, and solutions in increasingly complex contexts (e.g., expressions, formulas, tables, charts, graphs, relations, functions) and understand the relationships	X	X	X	X	X	X	X	X	X	X	X	X
d. Use the language of mathematics to communicate increasingly complex ideas orally and in writing, using symbols and notations correctly	X	X	X	X	X	X	X	X	X	X	X	X

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e. Make appropriate use of estimation and mental mathematics in computations and to determine the reasonableness of solutions to increasingly complex problems	X	X	X	X	X	X	X	X	X	X	X	X
f. Make mathematical connections among concepts, across disciplines, and in everyday experiences	X	X	X	X	X	X	X	X	X	X	X	X
g. Demonstrate the appropriate role of technology (e.g., calculators, software programs) in mathematics (e.g., organize data, develop concepts, explore relationships, decrease time spent on computations after a skill has been established)	X	X	X	X	X	X	X	X	X	X	X	X
h. Apply previously learned mathematical concepts in more advanced contexts	X	X	X	X	X	X	X	X	X	X	X	X
C. ESTABLISHING NUMBER SENSE AND OPERATIONS SKILLS												
1. Foundations												
a. Evaluate and simplify expressions requiring addition, subtraction, multiplication, and division with and without grouping symbols	X	X										
b. Translate real-world problems into expressions using variables to represent values	X	X	X									
c. Apply algebraic properties (e.g., commutative, associative, distributive, identity, inverse, substitution) to simplify algebraic expressions	X	X										
d. Add and subtract polynomials							X					
e. Factor a monomial from a polynomial								X				
f. Multiply monomials, binomials, trinomials, and polynomials							X	X	X	X		
D. EXPLORING EXPRESSIONS, EQUATIONS, AND FUNCTIONS IN THE FIRST DEGREE												
1. Expressions, Equations, and Inequalities												
a. Solve single-step and multistep equations and inequalities in one variable		X	X									
b. Solve equations that contain absolute value		X	X									
c. Solve formulas for a specified variable		X			X	X						

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d. Write and graph linear equations and inequalities from real-world situations (e.g., a constant-rate distance/time problem)				X	X	X						
e. Write linear equations in standard form and slope-intercept form when given two points, a point and the slope, or the graph of the equation					X	X						
f. Identify, formulate, and obtain solutions to problems involving direct and inverse variation					X							
g. Solve systems of two equations using various methods, including elimination, substitution, and graphing with and without technology						X						
2. Graphs, Relations, and Functions												
a. Graph linear inequalities in one variable on the real number line to solve problems					X							
b. Give the domain and range of relations and functions				X	X				X	X	X	
c. Evaluate functions at given values				X	X				X	X		
d. Identify graphs of relations and functions and analyze them to determine whether a relation is a function (e.g., vertical line test)				X								
e. Graph linear inequalities with two variables on the standard (x,y) coordinate plane					X							
f. Use the terminology associated with the Cartesian plane in describing points and lines	X				X	X						
g. Recognize the concept of slope as a rate of change and determine the slope when given the equation of a line in standard form or slope-intercept form, the graph of a line, two points, or a verbal description					X	X						
h. Graph a linear equation using a table of values, x- and y-intercepts, slope-intercept form, and technology					X	X						
i. Translate between different representations of relations and functions: graphs, equations, sets of ordered pairs, verbal descriptions, and tables				X	X							
E. EXPLORING QUADRATIC EQUATIONS AND FUNCTIONS												
1. Equations and Inequalities												
a. Factor perfect square trinomials and the difference of two squares								X				

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b. Factor trinomials in the form ax2 + bx + c								X				
c. Solve quadratic equations using multiple methods, including graphing, factoring, and the square root principle									X			
2. Graphs, Relations, and Functions												
a. Identify graphs of quadratic functions									X			
b. Relate factors, solutions (roots), zeros of related functions, and x-intercepts in equations that arise from quadratic functions									X			
F. EXPLORING ADVANCED FUNCTIONS												
1. Rational and Radical Expressions, Equations, and Functions												
a. Use properties of exponents (including zero and negative exponents) to evaluate and simplify expressions							X					
b. Evaluate and simplify rational expressions											X	
c. Add, subtract, multiply, and divide rational expressions											X	
d. Find rational number square roots (without calculators) and approximate irrational square roots (with and without calculators)										X		
e. Evaluate and simplify radical expressions										X		
f. Multiply radical expressions										X		
g. Simplify an algebraic quotient by rationalizing an irrational monomial denominator										X		
G. ORGANIZING AND ANALYZING DATA AND APPLYING PROBABILITY												
1. Data Relations, Probability, and Statistics												
a. Identify the effect on mean, median, mode, and range when a set of data is changed												X
b. Interpret data from line, bar, and circle graphs, histograms, scatterplots, box-and-whisker plots, stem-and-leaf plots, and frequency tables to draw inferences and make predictions												X
c. Identify arithmetic sequences and patterns in a set of data				X								
d. Identify patterns of growth (e.g., patterns of exponential growth) in a set of data										X		

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e. Find the probability of a simple event												X
f. Distinguish between independent and dependent events												X
g. Identify an approximate line of best fit to model data and make predictions												X
h. Identify the most efficient way to display data												X