

				<p>vice versa.</p> <p>Add and subtract radical expressions.</p> <p>Multiply and divide radical expressions not requiring rationalizing the denominators</p> <p>Recognize that the square root of -1 is represented as i.</p> <p>Determine which field properties apply to the complex number system.</p> <p>Simplify radical expressions containing negative rational numbers and express in $a+bi$ form.</p> <p>Simplify powers of i.</p> <p>Add, subtract, and multiply complex numbers.</p> <p>Write a real number in $a+bi$ form.</p> <p>Write a pure imaginary number in $a+bi$ form.</p> <p>Solve equations containing rational algebraic expressions with monomial or binomial denominators algebraically.</p> <p>Solve an equation containing a radical expression algebraically.</p> <p>Verify possible solutions to an equation containing rational or radical expressions.</p> <p>Solve absolute value equations and inequalities algebraically</p>	
7 days	Quadratics	AII.4 AII 5	B	<p>A quadratic function whose graph does not intersect the x-axis has roots with imaginary components.</p> <p>The quadratic formula can be used to solve any quadratic equation.</p> <p>The value of the discriminant of a quadratic equation can be used to describe the number of real and complex solutions.</p> <p>Solve a quadratic equation over the set of complex numbers</p>	

				<p>using an appropriate strategy.</p> <p>Calculate the discriminant of a quadratic equation to determine the number of real and complex solutions.</p>	
5 days	Polynomials	AII.6	A - F	<p>Identify the domain, range, zeros, and intercepts of a function presented algebraically or graphically.</p> <p>Describe restricted/discontinuous domains and ranges.</p> <p>Given the graph of a function, identify intervals on which the function is increasing and decreasing.</p> <p>Find the equations of vertical and horizontal asymptotes of functions.</p> <p>Describe the end behavior of a function.</p>	<p>BENCHMARK TEST (Not to include AII.5) End of the 2nd Quarter</p>
12 days	Rational Equations and Inequalities	AII.10; AII.17		<p>Add, subtract, multiply, and divide rational algebraic expressions.</p> <p>Simplify a rational algebraic expression with common monomial or binomial factors.</p> <p>Recognize a complex algebraic fraction, and simplify it as a quotient or product of simple algebraic fractions.</p>	
5 days	Sequences and Series	AII.2		<p>Distinguish between a sequence and a series.</p> <p>Generalize patterns in a sequence using explicit and recursive formulas.</p> <p>Use and interpret the notations Σ, n, n^{th} term, and a_n.</p> <p>Given the formula, find a_n (the n^{th} term) for an arithmetic or a geometric sequence.</p> <p>Given formulas, write the first n terms and find the sum, S_n, of the first n terms of an arithmetic or geometric series.</p> <p>Given the formula, find the sum of a convergent infinite series.</p>	

				Model real-world situations using sequences and series.	
10 days	Logarithms & Exponents	AII.6 AII.7		<p>Investigate exponential and logarithmic functions, using the graphing calculator.</p> <p>Convert between logarithmic and exponential forms of an equation with bases consisting of natural numbers.</p> <p>Recognize graphs of parent functions.</p> <p>Given a transformation of a parent function, identify the graph of the transformed function.</p> <p>Given the equation and using a transformational approach, graph a function.</p> <p>Given the graph of a function, identify the parent function.</p> <p>Given the graph of a function, identify the transformations that map the preimage to the image in order to determine the equation of the image.</p> <p>Using a transformational approach, write the equation of a function given its graph.</p>	
7 days	Statistics	AII.9 AII.10 AII.11 AII.12		<p>Collect and analyze data</p> <p>Using data, determine the equation of the curve of best fit</p> <p>Make Predictions</p> <p>Solve real-world problems using mathematical models to include polynomial, exponential, and logarithmic functions.</p> <p>Identify, create, and solve real-world problems involving inverse variation, joint variation, and a combination of the two</p> <p>Identify properties of a normal distribution and apply those properties to determine probabilities associated with areas under the standard normal curve</p>	

				Compute and distinguish between permutations and combinations and be able to use technology for applications	
5 days	Review	ALL			