

Scope and Sequence

Subject: Math

Grade: HS

Course Algebra II

<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 3</u>	<u>Unit 4</u>
Name of Unit: Variables, Terms & Expressions Duration: 9 days Topics • Solving Linear Equations • Common Algebraic Expressions • Basic Exponent Manipulation • Multiplying Polynomials • Using Tables on Your Calculator	Name of Unit: Operations with Polynomials Duration 13 days • Box Method Division • Box Method Division With Remainders • Long Division • Synthetic Division • Practice With Polynomials	Name of Unit: Factoring & Quadratics Duration 13 days • Factor by Grouping • Factoring Tricky Trinomials • Solving Quadratics by Factoring • Completing The Square • Quadratic Formula • Discriminant & Nature of the Roots • Sum & Product of the Roots	Name of Unit: Radicals Duration: 12 days • Simplifying Radicals • Perfect Cubes and their Roots • Fractional Exponents • Adding & Subtracting Radicals • Multiplying & Dividing Radicals • Binomial Operations With Radicals • Solving Radical Equations • Radicals Review
<u>Unit 5</u>	<u>Unit 6</u>	<u>Unit 7</u>	<u>Unit 8</u>
Name of Unit 5a: Polynomial Graphs Duration: 12 days • Special Role of Zero in Factoring • Practice Finding Multiplicity of Roots	Name of Unit 6a: Parabolas (Focus & Directrix) Duration: 4 days Name of Unit 6b: Operations with complex and Imaginary numbers Name of Unit 6c:	Name of Unit: Trigonometry Duration: 24 days • Right Angle Trigonometry • Finding Angles and Sides • Reciprocal Ratios and	Name of Unit: Exponents & Logarithms Duration: 30 days • Rules of Exponents • Negative Exponents • Fractional Exponents • Equations w/ Fractional

- Graphs of Factored Polynomials - End Behavior & Multiplicity - Remainder Theorem - Odd & Even Functions Name of Unit 5b: Systems of Equations Duration: 4 days	Rational Equations Duration: 3 days	Special Right Triangles - Special Right Triangles - Reference Angles - Reference Triangles and the Unit Circle - Graphing Sine Function - Graphing Cosine Function - Changing the Frequency - Practice Graphing - Radian Measure - Graphing in Radians - Reflections Over the x-axis - Practice With Trig Graphs - Vertical Shifts - Word Problems & Real World Scenarios	Exponents - Exponential Equations "WhatPower" Function & Logarithms - Solving Log Equations - Rules of Logs - Common & Natural Logs - Graphing Exponential Functions - Inverses - Transformations of Exponential Functions - Log Word Problems
Unit 9	Unit 10		
Name of Unit: Sequences & Series Duration: 5 days - Sequences - Sigma Notation	Name of Unit: Probability & Statistics Duration: 20 days 2 Way Tables - Conditional Probability - Independence		

	• Events & Venn Diagrams • Rules of Probability • Distributions of Data • Normal Curve & Standard Deviation Z-Scores • Studies & Sampling • Margin of Error		
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