Cord Algebra 2, Learning in Context, 1st edition
correlation to Hawaii's HCPS III Algebra II Benchmarks

Benchmarks	**Cord Algebra 2 Lesson(s)**
Standard 1: Numbers and Operations: NUMBER SENSE: Understand numbers, ways of representing numbers, relationships among numbers, and number systems	
MA.AII.1.1 Use the complex number system, the notation for complex numbers, and the definition of "i" to solve problems	5.5
Standard 2: Numbers and Operations: OPERATION SENSE: Understand the meaning of operations and how they relate to each other	
MA.AII.2.1 Add, subtract, multiply, and divide complex numbers	5.5
MA.AII.2.2 Use the inverse relationship between exponents and logarithms to solve exponential and logarithmic problems	8.2
Standard 3: Numbers and Operations: COMPUTATION STRATEGIES: Use computational tools and strategies fluently and, when appropriate, use estimation	
MA.AII.3.1 Apply the laws of exponents to perform operations on expressions with integral exponents	5.1
Standard 4: Measurement: FLUENCY WITH MEASUREMENT: Understand attributes, units, and systems of units in measurement; and develop and use techniques, tools, and formulas for measuring	
MA.AII.4.1 Use advanced formulas or functions to solve problems dealing with determining a measurement based on another derived or given measure	Throughout Math Applications
Standard 5: Geometry and Spatial Sense: PROPERTIES AND RELATIONSHIPS: Analyze properties of objects and relationships among the properties	
MA.AII.5 No benchmark for Algebra II	
Standard 6: Geometry and Spatial Sense: TRANSFORMATIONS AND SYMMETRY: Use transformations and symmetry to analyze mathematical situations	
MA.AII.6 No benchmark for Algebra II	
Standard 7: Geometry and Spatial Sense: VISUAL AND SPATIAL SENSE: Use visualization and spatial reasoning to solve problems both within and outside of mathematics	
MA.AII.7 No benchmark for Algebra II	
Standard 8: Geometry and Spatial Sense: REPRESENTATIONAL SYSTEMS: Select and use different representational systems, including coordinate geometry	
MA.AII.8 No benchmark for Algebra II	
Standard 9: Patterns, Functions, and Algebra: PATTERNS AND FUNCTIONAL RELATIONSHIPS: Understand various types of patterns and functional relationships	
MA.AII.9.1 Apply the properties of arithmetic and geometric sequences and series to solve problems	11.2, 11.3, 11.4
MA.AII.9.2 Use exponential functions to solve problems involving exponential growth and decay	8.1, 8.6
MA.AII.9.3 Use the properties of many types of functions (e.g., polynomial, step, absolute value, step, exponential, and logarithmic) to identify the function's graph	4.4, 8.1, 8.2, 9.1
MA.AII.9.4 Use the appropriate terminology and notation to define functions and their properties (e.g., domain, range, function composition, inverses, zeros)	4.1, 4.4, 4.5, 6.1, 8.1, 9.1, 10.1

MA.AII.9.5 Determine the zeros of a function algebraically or graphically	4.1, 4.4, 4.5, 6.1, 8.1, 9.1, 10.1
MA.AII.9.6 Describe the relationship among relations and functions	4.1
MA.AII.9.7 Determine the domain and range of a relation given a graph or a set of points	4.1
Standard 10: Patterns, Functions, and Algebra: SYMBOLIC REPRESENTATION: Use symbolic forms to represent, model, and analyze mathematical situations	
MA.AII.10.1 Solve equations and inequalities involving absolute values	1.3
MA.AII.10.2 Solve systems of linear equations and inequalities in two or three variables using a variety of strategies (e.g., substitution, graphing, matrices, technology)	2.1, 2.2, 2.3, 2.4, 2.5
MA.AII.10.3 Solve equations containing radicals and exponents	5.4
MA.AII.10.4 Factor polynomials representing perfect squares, the difference in squares, perfect square trinomials, the sum and difference of cubes, and general trinomials	9.2, 9.3, 9.4
MA.AII.10.5 Apply quadratic equations to real-world situations	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, Ch. 6 Math Applications
MA.AII.10.6 Solve quadratic equations in the complex number system	6.5, 6.6
MA.AII.10.7 Use the binomial theorem to expand binomial expression	11.5
MA.AII.10.8 Add, subtract, multiply, divide, and simplify rational expressions, radical expressions containing positive rational numbers, and expressions containing rational exponents	5.1, 5.2, 5.3, 10.2, 10.3, 10.5
MA.AII.10.9 Translate between the equations of conic sections (e.g., circle, ellipse, parabola, hyperbola) and their graphs	7.2, 7.3, 7.4, 7.5, 7.6
MA.AII.10.10 Analyze translations and dilations for graphs of absolute value functions, parabolas, and circles, and understand how the transformations are represented in equations	4.5, 7.3, 7.5
Standard 11: Data Analysis, Statistics, and Probability: FLUENCY WITH DATA: Pose questions and collect, organize, and represent data to answer those questions	
MA.AII.11 No benchmark for Algebra II	
Standard 12: Data Analysis, Statistics, and Probability: STATISTICS: Interpret data using methods of exploratory data analysis	
MA.AII.12.1 Identify trends in bivariate data and find functions that model the data	1.6
Standard 13: Data Analysis, Statistics, and Probability: DATA ANALYSIS: Develop and evaluate inferences, predictions, and arguments that are based on data	
MA.AII.13 No benchmark for Algebra II	
Standard 14: Data Analysis, Statistics, and Probability: PROBABILITY: Understand and apply basic notions of chance and probability	
MA.AII.14.1 Use the fundamental counting principles for combinations and permutations to determine probability	14.3, 14.4

MA.AII.14.2 Calculate probabilities of events under different relationships (e.g., inclusion, disjoint, complementary, independent, dependent, with replacement, without replacement)	14.1, 14.2