



**KENOSHA UNIFIED SCHOOL DISTRICT NO. 1  
CURRICULUM & INSTRUCTIONAL SERVICES**

**STANDARDS AND BENCHMARKS  
MATHEMATICS**

<b>ALGEBRA 2</b>
<b>STANDARD A: MATHEMATICAL PROCESS</b>
<b>Representation, Reasoning, Problem Solving</b>
<b>Communication, Connections</b>
<i>I can use reasoning and logic to formulate, analyze, and solve problems, and to test the reasonableness of my results.</i>
<i><b>A-1.11</b></i>
<i>I can clearly communicate mathematical concepts either orally or in written form.</i>
<i><b>A-2.11</b></i>
<i>I can use a computer or a calculator as a problem-solving tool.</i>
<i><b>A-3.11</b></i>
<i>I can read and interpret mathematical text and other mathematical representations (e.g., numbers, symbols, diagrams, models).</i>
<i><b>A-4.11</b></i>
<b>STANDARD B: NUMBER OPERATIONS AND RELATIONSHIPS</b>
<b>Number Concepts</b>
<b>Number Computation</b>
<i>I can select and use appropriate computational procedures and perform mathematical operations on complex numbers.</i>
<i><b>B-1.11</b></i>
<i>I can express roots in simplest radical form.</i>
<i><b>B-2.11</b></i>
<i>I can perform operations on real numbers, (e.g., roots, matrices, integer and rational exponents, logarithms, and absolute value).</i>
<i><b>B-3.11</b></i>
<i>I can determine the reasonableness of answers.</i>
<i><b>B-4.11</b></i>
<i>I can use mental math.</i>
<i><b>B-5.11</b></i>
<b>STANDARD D: MEASUREMENT</b>
<b>Measurable Attributes/Units</b>
<b>Direct Measurement</b>
<b>Indirect Measurement</b>
<i>I can apply the distance formula and the midpoint formula in real-life situations</i>
<i><b>D-1.11</b></i>

*Most essential benchmarks appear in bold, italicized print.*

<b>ALGEBRA 2</b>
<b>STANDARD E: STATISTICS AND PROBABILITY</b>
<b>Data Analysis and Statistics</b>
<b>Probability</b>
<i>I can analyze and evaluate the conclusions of a statistical experiment.</i>
<i><b>E-1.11</b></i>
<i>I can calculate, make predictions, and analyze the effects of data on measures of central tendency and dispersion (e.g., outlier and range).</i>
<i><b>E-2.11</b></i>
<i>I can use combinations and permutations to determine the probability of an event.</i>
<i><b>E-3.11</b></i>
<b>STANDARD F: ALGEBRAIC RELATIONSHIPS</b>
<b>Patterns, Relations, and Functions</b>
<b>Expressions, Equations, Inequalities</b>
<b>Properties</b>
<i>I can completely factor a polynomial (e.g., sum/difference of two cubes.)</i>
<i><b>F-1.11</b></i>
<i>I can add, subtract, multiply, and divide rational expressions.</i>
<i><b>F-2.11</b></i>
<i>I can write the equation of a linear and quadratic function given its graph.</i>
<i><b>F-3.11</b></i>
<i>I can graph a line.</i>
<i><b>F-4.11</b></i>
<i>I can graph absolute value and quadratic functions.</i>
<i><b>F-5.11</b></i>
<i>I can graph linear and quadratic inequalities.</i>
<i><b>F-6.11</b></i>
<i>I can determine the slope of a line given its graph.</i>
<i><b>F-7.11</b></i>
<i>I can use direct and inverse variation in problem solving.</i>
<i><b>F-8.11</b></i>
<i>I can solve all types of linear equations.</i>
<i><b>F-9.11</b></i>
<i>I can solve quadratic equations (e.g., by completing the square, by using the square-root method, and by using the quadratic formula).</i>
<i><b>F-10.11</b></i>
<i>I can solve rational and quadratic equations using the quadratic formula.</i>
<i><b>F-11.11</b></i>

**ALGEBRA 2**

*I can solve linear and quadratic inequalities.*

***F-12.11***

*I can solve two variable systems of equations (e.g., using Cramer's Rule, linear combinations, substitution, and graphing).*

***F-13.11***

*I can solve systems of linear inequalities.*

***F-14.11***

*I can solve higher order polynomial equations.*

***F-15.11***

*I can solve logarithmic equations.*

***F-16.11***

*I can solve exponential and radical equations.*

***F-17.11***

*I can completely simplify rational expressions.*

***F-18.11***

*I can use the properties of logarithms to simplify expressions.*

***F-19.11***

*I can simplify radical expressions.*

***F-20.11***

*I can convert between radical notation and rational exponent notation.*

***F-21.11***

*I can identify the key features of conic sections.*

***F-22.11***

*I can identify the various types of conic sections from their equations and graphs.*

***F-23.11***

*I can write the equation of a conic section given its graph.*

***F-24.11***

*I can graph the conic sections.*

***F-25.11***