



KENOSHA UNIFIED SCHOOL DISTRICT NO. 1
CURRICULUM & INSTRUCTIONAL SERVICES

STANDARDS AND BENCHMARKS
MATHEMATICS

ALGEBRA 1
STANDARD A: MATHEMATICAL PROCESS
Representation, Reasoning, Problem Solving
Communication, Connections
<i>I can use reasoning and logic to formulate, analyze, and solve problems, and to test the reasonableness of my results.</i>
A-1.9
<i>I can clearly communicate mathematical concepts either orally or in written form.</i>
A-2.9
<i>I can use a computer or a calculator as a problem-solving tool.</i>
A-3.9
<i>I can read and interpret mathematical text and other mathematical representations (e.g., numbers, symbols, diagrams, models).</i>
A-4.9
STANDARD B: NUMBER OPERATIONS AND RELATIONSHIPS
Number Concepts
Number Computation
<i>I can compare and order real numbers using appropriate symbols.</i>
B-1.9
<i>I can write and solve proportions, including percents.</i>
B-2.9
<i>I can select and use appropriate computational procedures.</i>
B-3.9
<i>I can express square roots in simplest radical form.</i>
B-4.9
<i>I can perform operations on real numbers (e.g., absolute value, square roots, integer exponents, and reciprocals).</i>
B-5.9
<i>I can find the least common multiple (LCM) and greatest common factor (GCF) of two or more algebraic expressions.</i>
B-6.9
<i>I can find the prime factorization of variable expressions, (e.g., $12ab^2=2^2 \cdot 3 \cdot a \cdot b \cdot b$).</i>
B-7.9
<i>I can determine the reasonableness of answers.</i>
B-8.9

Most essential benchmarks appear in bold, italicized print.

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<i>I can use mental math.</i>
<i>B-9.9</i>
STANDARD D: MEASUREMENT
Measurable Attributes/Units
Direct Measurement
Indirect Measurement
<i>I can select and use appropriate measurement tools (e.g., ruler and protractor).</i>
<i>D-1.9</i>
<i>I can use the Pythagorean Theorem to solve right triangle problems.</i>
<i>D-2.9</i>
<i>I can use formulas in applications (e.g., simple and compound interest and $d=rt$).</i>
<i>D-3.9</i>
STANDARD E: STATISTICS AND PROBABILITY
Data Analysis and Statistics
Probability
<i>I can interpret the data that is displayed in a variety of ways (e.g., tables, bar graphs, line graphs, and scatter plots).</i>
<i>E-1.9</i>
<i>I can evaluate the validity of a statistical experiment.</i>
<i>E-2.9</i>
<i>I can estimate and make predictions given a set of data (e.g., mean, median, mode, and line of best fit).</i>
<i>E-3.9</i>
<i>I can determine the probability of compound events (e.g., dependent, independent, mutually exclusive, and percents).</i>
<i>E-4.9</i>
<i>I can use combinations and permutations to determine the probability of an event.</i>
<i>E-5.9</i>
STANDARD F: ALGEBRAIC RELATIONSHIPS
Patterns, Relations, and Functions
Expressions, Equations, Inequalities
Properties
<i>I can completely factor a polynomial (e.g., GCF, quadratic trinomials, and special products).</i>
<i>F-1.9</i>
<i>I can add, subtract, and multiply polynomials.</i>
<i>F-2.9</i>
<i>I can write the equation of a nonvertical line in slope-intercept form given its graph.</i>
<i>F-3.9</i>
<i>I can write the equation of a vertical line given its graph.</i>
<i>F-4.9</i>

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I can graph a line using a table of values.

F-5.9

I can graph a line from the slope intercept form of an equation.

F-6.9

I can graph a line using x and y intercepts.

F-7.9

I can graph a line given a point and a slope.

F-8.9

I can graph horizontal and vertical lines.

F-9.9

I can graph linear inequalities.

F-10.9

I can determine the slope of a line given its graph.

F-11.9

I can determine the x and y intercepts of a line given its graph.

F-12.9

I can find the slope of a line given two points.

F-13.9

I can describe the steepness of slope.

F-14.9

I can use slope to identify parallel and perpendicular lines.

F-15.9

I can relate the concept of slope to rate of change.

F-16.9

I can determine the percent of change.

F-17.9

I can predict an outcome based on patterns and sequences.

F-18.9

I can solve linear equations.

F-19.9

I can solve quadratic equations using factoring.

F-20.9

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I can solve quadratic equations by finding square roots.

F-21.9

I can solve quadratic equations using the quadratic formula.

F-22.9

I can solve linear inequalities.

F-23.9

I can solve systems of linear equations by linear combinations, substitution, and graphing.

F-24.9

I can solve systems of linear inequalities by graphing.

F-25.9

I can use the substitution property to evaluate expressions.

F-26.9

I can use the distributive property to simplify expressions.

F-27.9

I can use the associative property to simplify expressions.

F-28.9

I can use the commutative property to simplify expressions.

F-29.9

I can use the properties of exponents to simplify expressions.

F-30.9

I can simplify multistep order of operations expressions containing variables.

F-31.9