



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

MOST ESSENTIAL BENCHMARKS: MATHEMATICS

DISCRETE MATHEMATICS
STANDARD A: MATHEMATICAL PROCESS
Representation, Reasoning, Problem Solving
Communication, Connections
I can use reason and logic to: <ul style="list-style-type: none"> • Evaluate information; • Perceive patterns; • Identify relationships; • Formulate questions, pose problems, and make and test conjectures; and • Pursue ideas that lead to further understanding and deeper insight.
A-1.12D
I can communicate logical arguments and clearly show: <ul style="list-style-type: none"> • Why a result does or does not make sense, • Why the reasoning is or is not valid, and • An understanding of the difference between examples that support a theory and those that do not support the theory.
A-2.12D
I can analyze nonroutine problems and arrive at solutions by various means, including models and simulations, often starting with provisional conjectures and progressing, directly or indirectly, to a solution, justification, or counter example.
A-3.12D
I can develop effective presentations employing correct mathematical terminology, notation, symbols, and conventions for mathematical arguments and display of data.
A-4.12D
I can organize work and present mathematical procedures and results clearly, systematically, succinctly, and correctly.
A-5.12D
I can read and understand mathematical texts and other instructional materials.
A-6.12D
STANDARD B: NUMBER OPERATIONS AND RELATIONSHIPS
Number Concepts
Number Computation
I can use complex counting procedures, such as arrangements (permutations and combinations), to solve problems.
B-1.12D
I can create and critically evaluate numerical arguments presented in a variety of classroom and real-world situations (e.g., political, economic, scientific, and social).
B-2.12D

Most essential benchmarks appear in bold, italicized print.

<p>I can routinely assess the acceptable limits of error when:</p> <ul style="list-style-type: none"> • Evaluating strategies, • Testing the reasonableness of results, and • Using technology to carry out computations.
B-3.12D
STANDARD C: GEOMETRY
Two- and Three-Dimensional Figures
Spatial Relationships and Transformations
Coordinate Systems
<p>I can identify, describe, and analyze properties of figures, relationships among figures, and relationships among their parts by:</p> <ul style="list-style-type: none"> • Constructing physical models, • Using appropriate transformations (e.g., translations, rotations, reflections, and enlargements), and • Using reason and logic.
C-1.12D
STANDARD D: MEASUREMENT
Measurable Attributes/Units
Direct Measurement
Indirect Measurement
<p>I can identify, describe, and use derived attributes (e.g., density and pressure) to represent and solve problem situations.</p>
D-1.12D
<p>I can determine measurements indirectly using:</p> <ul style="list-style-type: none"> • Estimation; • Proportional reasoning, including those involving squaring and cubing; • Formulas in applications (e.g., for compound interest); and • Conversion constants to relate measures in one system to another (e.g., meters to feet).
D-2.12D
STANDARD E: STATISTICS AND PROBABILITY
Data Analysis and Statistics
Probability
<p>I can work with data in the context of real-world situations.</p>
E-1.12D
<p>I can organize and display data from statistical investigations using frequency distributions and percentiles and quartiles.</p>
E-2.12D
<p>I can analyze, evaluate, and critique the methods and conclusions of statistical experiments reported in journals, magazines, news media, advertising, etc.</p>
E-3.12D
<p>I can determine the likelihood of occurrence of complex events by:</p> <ul style="list-style-type: none"> • Using a variety of strategies (e.g., combinations) to identify possible outcomes, • Conducting an experiment,

- Designing and conducting simulations, and
- Applying theoretical probability.

E-4.12D

STANDARD F: ALGEBRAIC RELATIONSHIPS

Patterns, Relations, and Functions

Expressions, Equations, Inequalities

Properties

I can model and solve a variety of mathematical and real-world problems by using algebraic expressions, equations, and inequalities.

F-1.12D