



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

**STANDARDS AND BENCHMARKS
MATHEMATICS**

GRADE 7
STANDARD A: MATHEMATICAL PROCESSES
Representation, Reasoning, Problem Solving
Communication, Connections
<i>I can use reasoning and logic to create questions, write problems, and explain answers.</i>
<i>A-1.7</i>
<i>I can explain the answers to problems using correct math vocabulary, symbols, pictures, charts, tables, diagrams, graphs, and models.</i>
<i>A-2.7</i>
<i>I can determine the reasonableness of answers.</i>
<i>A-3.7</i>
<i>I can read and interpret mathematical text and other mathematical representations in real-world context (e.g., numbers, symbols, diagrams, and models).</i>
<i>A-4.7</i>
<i>I can use a computer or a calculator as a problem-solving tool.</i>
<i>A-5.7</i>
STANDARD B: NUMBER OPERATIONS AND RELATIONSHIPS
Number Concepts
Number Computation
<i>I can represent rational numbers using words, numerals, number lines, geometric models, and scientific notation.</i>
<i>B-1.7</i>
<i>I can read whole numbers to the hundred millions.</i>
<i>B-2.7</i>
<i>I can write numbers to the hundred millions.</i>
<i>B-3.7</i>
<i>I can express numbers in expanded form (e.g., $12.097=10+2+.09+.007$ and $12.097=13-.003$).</i>
<i>B-4.7</i>
<i>I can identify place value in numbers to the hundred millions.</i>
<i>B-5.7</i>
<i>I can compare and order decimals (to the thousandths) and use symbols $<$, $>$, $=$, and \neq.</i>
<i>B-6.7</i>
<i>I can find the LCM of two or more numbers.</i>
<i>B-7.7</i>

Most essential benchmarks appear in bold, italicized print.

GRADE 7
<i>I can find the GCF of two or more numbers.</i>
<i>B-8.7</i>
<i>I can identify the divisibility of numbers (divisors of two through six and eight through ten).</i>
<i>B-9.7</i>
<i>I can find the prime factorization of composite numbers and express them in exponential form.</i>
<i>B-10.7</i>
<i>I can compare and order a set of fractions and use symbols $<$, $>$, $=$, and \neq.</i>
<i>B-11.7</i>
<i>I can simplify fractions and mixed numbers.</i>
<i>B-12.7</i>
<i>I can identify equivalent forms of fractions, decimals, and percents.</i>
<i>B-13.7</i>
<i>I can write fractions, decimals, and percents in equivalent forms.</i>
<i>B-14.7</i>
<i>I can estimate the sum, difference, and product of whole numbers; common fractions; mixed numbers; and decimals to thousandths.</i>
<i>B-15.7</i>
<i>I can solve percent problems (e.g., discounts, tips, and sales tax).</i>
<i>B-16.7</i>
<i>I can apply proportional reasoning to problem situations (e.g., unit rate and similarities).</i>
<i>B-17.7</i>
<i>I can compare and order integers and use symbols $<$, $>$, $=$, and \neq.</i>
<i>B-18.7</i>
<i>I can add decimals and integers.</i>
<i>B-19.7</i>
<i>I can subtract decimals and integers.</i>
<i>B-20.7</i>
<i>I can multiply decimals and integers (-100 to 100).</i>
<i>B-21.7</i>
<i>I can divide decimals and integers with decimal divisors.</i>
<i>B-22.7</i>
<i>I can add rational numbers including mixed numbers.</i>
<i>B-23.7</i>
<i>I can subtract rational numbers, including mixed numbers.</i>
<i>B-24.7</i>

GRADE 7
<i>I can multiply and divide fractions and mixed numbers</i>
<i>B-25.7</i>
<i>I can estimate square roots to the nearest whole number.</i>
<i>B-26.7</i>
<i>I can determine the reasonableness of answers.</i>
<i>B-27.7</i>
<i>I can use mental math.</i>
<i>B-28.7</i>
STANDARD C: GEOMETRY AND SPATIAL SENSE
Two- and Three-Dimensional Figures
Spatial Relationships and Transformations
Coordinate Systems
<i>I can identify and describe three-dimensional figures (e.g., rectangular prisms, square pyramids, cones, cylinders, and spheres).</i>
<i>C-1.7</i>
<i>I can draw and/or describe a similar figure when given a polygon drawn on graph paper with vertices at lattice points.</i>
<i>C-2.7</i>
<i>I can identify and describe three-dimensional figures from multiple perspectives.</i>
<i>C-3.7</i>
<i>I can identify figures that are congruent and/or similar and use proportions to solve problems.</i>
<i>C-4.7</i>
<i>I can draw diagonals from a single vertex of a polygon to determine the number of triangles formed.</i>
<i>C-5.7</i>
<i>I can classify figures possessing line symmetry only, line and rotation symmetry, rotational symmetry only, and no symmetry.</i>
<i>C-6.7</i>
<i>I find the supplement or complement of a given angle.</i>
<i>C-7.7</i>
<i>I can find the measure of one angle of a triangle when given the measures of the other two angles.</i>
<i>C-8.7</i>
<i>I can draw or identify the transformations of points across the x or y axis.</i>
<i>C-9.7</i>
<i>I can plot and identify ordered pairs on the coordinate plane.</i>
<i>C-10.7</i>

GRADE 7
STANDARD D: MEASUREMENT
Measurable Attributes/Units
Direct Measurement
Indirect Measurement
<i>I can determine elapsed time in problem-solving situations.</i>
D-1.7
<i>I can select appropriate units of measure (U.S. customary and metric) to estimate the length of objects.</i>
D-2.7
<i>I can select appropriate units of measure (U.S. customary and metric) to estimate liquid capacity and volume.</i>
D-3.7
<i>I can select appropriate unit of measure (U.S. customary and metric) to estimate the weight/mass of objects.</i>
D-4.7
<i>I can select and use appropriate measurement tools (e.g., ruler and protractor).</i>
D-5.7
<i>I can measure with the appropriate degree of precision (1/4, 1/8, or 1/16 inch) or nearest centimeter or millimeter.</i>
D-6.7
<i>I can convert units of measure between U.S. customary and metric systems (e.g., quart to liter, yard to meter, and inch to centimeter).</i>
D-7.7
<i>I can measure and draw angles up to 360 degrees.</i>
D-8.7
<i>I can find the perimeter of polygons given the side lengths.</i>
D-9.7
<i>I can find the area of all quadrilaterals and triangles.</i>
D-10.7
<i>I can find the area of a circle.</i>
D-11.7
<i>I can estimate the area of a polygon (regular and irregular) given a reference.</i>
D-12.7
<i>I can find the surface area of cylinders and rectangular prisms.</i>
D-13.7
<i>I can find the volume of cylinders and rectangular prisms.</i>
D-14.7
<i>I can draw similar figures using a scale factor (i.e., enlarge/shrink).</i>
D-15.7
<i>I can use formulas in applications (e.g., perimeter, area, and distance [d-rt]).</i>
D-16.7

GRADE 7
STANDARD E: STATISTICS AND PROBABILITY
Data Analysis and Statistics
Probability
<i>I can display and analyze data in box-and-whisker plots and circle graphs.</i>
<i>E-1.7</i>
<i>I can display and analyze data in scatter plots.</i>
<i>E-2.7</i>
<i>I can make and analyze data in back to back stem-and-leaf plots and double bar graphs.</i>
<i>E-3.7</i>
<i>I can identify and analyze misleading graphs.</i>
<i>E-4.7</i>
<i>I can find the range, mean, median (odd or even number of data), and mode in a real-life situation.</i>
<i>E-5.7</i>
<i>I can use probabilities to estimate outcomes and evaluate fair and unfair simple events.</i>
<i>E-6.7</i>
<i>I can determine if outliers are affecting the measures of central tendency.</i>
<i>E-7.7</i>
<i>I can use appropriate vocabulary to describe the probability of chance events.</i>
<i>E-8.7</i>
<i>I can find the theoretical probability of a dependent or independent event (e.g., $P = \frac{\text{number of favorable outcomes}}{\text{total number of outcomes}}$).</i>
<i>E-9.7</i>
<i>I can describe and determine the number of combinations from a set of five or less.</i>
<i>E-10.7</i>
<i>I can use counting methods to determine possible outcomes.</i>
<i>E-11.7</i>
<i>I can use a set of data to solve and interpret probability problems.</i>
<i>E-12.7</i>
STANDARD F: ALGEBRAIC RELATIONSHIPS
Patterns, Relations, and Functions
Expressions, Equations, Inequalities
Properties
<i>I can determine the rule of a two-operation function table with numbers -100 through 100.</i>
<i>F-1.7</i>
<i>I can complete increasing or decreasing number patterns and geometric patterns.</i>
<i>F-2.7</i>
<i>I can complete a two-variable function table using multiplication and exponents.</i>
<i>F-3.7</i>

GRADE 7
<i>I can extend and use a function table with two operations to create a graph on the coordinate grid.</i>
<i>F-4.7</i>
<i>I can describe a linear pattern given a function table or graph.</i>
<i>F-5.7</i>
<i>I can prove that the items in a given pattern are correct.</i>
<i>F-6.7</i>
<i>I can write an algebraic expression to represent a linear pattern.</i>
<i>F-7.7</i>
<i>I can correctly use mathematical symbols of equality and inequality ($<$, $>$, \leq, \geq, $=$, and \neq).</i>
<i>F-8.7</i>
<i>I can translate a mathematical equation from words into numbers and symbols.</i>
<i>F-9.7</i>
<i>I can substitute integers for variables in an expression and find its value.</i>
<i>F-10.7</i>
<i>I can evaluate formulas by solving for a specific variable.</i>
<i>F-11.7</i>
<i>I can write a two-step single variable equation to represent a problem.</i>
<i>F-12.7</i>
<i>I can solve a two-step single variable equation with rational coefficients.</i>
<i>F-13.7</i>
<i>I can use the distributive property to evaluate an expression using integers.</i>
<i>F-14.7</i>
<i>I can use the associative property to regroup numbers in adding or multiplying.</i>
<i>F-15.7</i>
<i>I can use the commutative property to add or multiply integers.</i>
<i>F-16.7</i>
<i>I can solve four-step order-of-operation expressions using parentheses, exponents, and fraction symbols.</i>
<i>F-17.7</i>