



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

Pre-Calculus – Honors (352020)
<i>Standard</i>
STANDARD A: MATHEMATICAL PROCESSES
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-1.12PC
<i>I can clearly communicate mathematical concepts either orally or in written form.</i>
A-2.12PC
<i>I can use a computer or a calculator as a problem solving tool.</i>
A-3.12PC
<i>I can read and interpret mathematical text and other mathematical representations ,e.g. numbers, symbols, diagrams, models.</i>
A-4.12PC
STANDARD C: GEOMETRY AND SPATIAL SENSE
<i>I can identify and graph shifts, reflections, and non-rigid transformations of functions.</i>
C-1.12PC
<i>I can recognize, evaluate, and graph exponential and logarithmic functions.</i>
C-2.12PC
<i>I can describe an angle and convert between degree and radian measure.</i>
C-3.12PC
<i>I can identify a unit circle and describe its relationship to real numbers.</i>
C-4.12PC
<i>I can evaluate trigonometric functions of any angle.</i>
C-5.12PC
<i>I can use fundamental trigonometric identities.</i>
C-6.12PC
<i>I can sketch graphs of trigonometric functions.</i>
C-7.12PC
<i>I can evaluate inverse trigonometric functions.</i>
C-8.12PC
<i>I can evaluate the compositions of trigonometric functions.</i>
C-9.12PC
<i>I can use trigonometric functions to model and solve real life problems.</i>
C-10.12PC
<i>I can use fundamental trigonometric identities to evaluate trigonometric functions and simplify trigonometric expressions.</i>
C-11.12PC
<i>I can verify trigonometric identities.</i>
C-12.12PC
<i>I can use Law of Sines or Law of Cosines to solve triangles.</i>
C-13.12PC
<i>I can approximate limits graphically and numerically.</i>
C-14.12PC
<i>I can find one-sided limits.</i>
C-15.12PC
<i>I can evaluate limits of functions at infinity.</i>
C-16.12PC
STANDARD F: ALGEBRAIC RELATIONSHIPS
Patterns, Relations, and Functions
Expressions, Equations, Inequalities
Properties
<i>I can evaluate functions and find their domains.</i>

Most essential benchmarks appear in bold, italicized print.

<i>F-1.12PC</i>
<i>I can analyze graphs of functions.</i>
<i>F-2.12PC</i>
<i>I can perform operations on functions and compositions of functions.</i>
<i>F-3.12PC</i>
<i>I can find inverse functions graphically and algebraically.</i>
<i>F-4.12PC</i>
<i>I can sketch and analyze graphs of quadratic functions.</i>
<i>F-5.12PC</i>
<i>I can use long division and synthetic division to divide polynomials by other polynomials.</i>
<i>F-6.12PC</i>
<i>I can determine the number of rational and real zeros of a polynomial function and find the zeros using a graphing utility.</i>
<i>F-7.12PC</i>
<i>I can determine the domains, find the asymptotes, and sketch the graphs of rational functions.</i>
<i>F-8.12PC</i>
<i>I can rewrite logarithmic functions with different bases.</i>
<i>F-9.12PC</i>
<i>I can use the the properties of logarithms to rewrite, expand, or condense logarithmic expressions.</i>
<i>F-10.12PC</i>
<i>I can solve exponential and logarithmic equations.</i>
<i>F-11.12PC</i>
<i>I can use exponential growth and decay models to solve real-life problems</i>
<i>F-12.12PC</i>
<i>I can standard algebraic techniques and inverse trigonometric functions to solve trigonometric equations.</i>
<i>F-13.12PC</i>
<i>I can use sum and difference formulas, multiple angle formulas, power-reducing formulas, and half-angle formulas to evaluate trigonometric identities.</i>
<i>F-14.12PC</i>
<i>I can use sequence, factorial, and summation notation to write the terms and sums of sequences.</i>
<i>F-15.12PC</i>
<i>I can recognize, write, and use arithmetic and geometric sequences.</i>
<i>F-16.12PC</i>
<i>I can find limits by direct substitution and by using algebraic simplification techniques.</i>
<i>F-17.12PC</i>
<i>I can use the definition of a limit to estimate a limit.</i>
<i>F-18.12PC</i>
<i>I can write the standard forms of the equations of basic conics.</i>
<i>F-19.12PC</i>
<i>I can analyze and sketch parabolas, ellipses, and hyperbolas.</i>
<i>F-20.12PC</i>

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