Erie-Huron-Ottawa Effective Schools Consortium
Huron High School
Math Performance Indicators
Calculus

Grading Period	Difficulty Level	Performance Indicator
I. NUMBER/NUMBER SENSE, AND OPERATIONS		
B. Meaning of Operations		
☐ ☐ ☐ ☐		2. Find the total number of possible outcomes using factorial notation and computations to solve a problem [e.g., the lottery, other probabilities, number of batting orders, combinations on a salad bar, phone numbers in an area code, license plate numbers in a state]. **[DP.9.5.7, NS.10.1.3; NS Benchmark: G; Math Processes: A, B]**
II. MEASUREMENT		
A. Measurement Units, Tools, Techniques		
☐ ☐ ☐ ☐		4. Identify specific situations when given absolute errors are and are not problematic or significant (e.g., a few-cent error in bulk mailings; a $\frac{1}{4}$ inch measurement miscalculation; attendance/shortfall of dollars spent/cost of high school event vs. Big 10 stadium); explain the relative differences in each example. **[M.10.2.1; M. Benchmark: F; Math Processes: B, G, H]**
☐ ☐ ☐ ☐	**II**	9. Derive a formula for the surface area of a cone as a function of its slant height and the circumference of its base. **[M.11.2.3; M Benchmark: C; Math Processes:]**
☐ ☐ ☐ ☐	**III**	10. Calculate distances, areas, surface areas and volumes of composite three-dimensional objects to a specified number of significant digits. **[M.11.2.4; M Benchmark: C; Math Processes:]**
☐ ☐ ☐ ☐	**I**	11. Solve real-world problems involving area, surface area, volume and density to a specified degree of precision. **[M.11.2.5; M Benchmark: D; Math Processes:]**
☐ ☐ ☐ ☐		12. Solve problems involving derived measurements (e.g., acceleration and pressure). **[M.12.2.1; M Benchmark: A; Math Processes:]**
☐ ☐ ☐ ☐		13. Use radian measures in solution of problems involving angular velocity and acceleration. **[M.12.2.2; M Benchmark: A; Math Processes:]**
☐ ☐ ☐ ☐		14. Apply informal concepts of successive approximation, upper and lower bounds, and limits in measurement situations (e.g., measurement of some quantities such as volume of a cone, can be determined by sequences of increasingly accurate approximations). **[M.12.2.3; M Benchmarks: C, D; Math Processes:]**
IV. PATTERNS, FUNCTIONS, ALGEBRA		
B. Algebraic Representations		
☐ ☐ ☐ ☐		18. Make arguments about mathematical properties using mathematical induction. **[A.12.4.6; A Benchmarks: C, D; Math Processes:]**
☐ ☐ ☐ ☐		19. Make mathematical arguments using the concepts of limit. **[A.12.4.7; A Benchmarks: C, D; Math Processes:]**
☐ ☐ ☐ ☐		20. Compare estimates of the area under a curve over a bounded interval by partitioning the region with rectangles (e.g., make successive estimates using progressively smaller rectangles). **[A.12.4.8; A Benchmarks: ; Math Processes:]**
☐ ☐ ☐ ☐		21. Translate freely between polar and Cartesian coordinate systems. **[A.12.4.9; A Benchmarks: ; Math Processes:]**
C. Analysis of Change		
☐ ☐ ☐ ☐		5. Use the concept of limit to find instantaneous rate of change for a point on a graph as the slope of a tangent at a point. **[A.12.4.10; A Benchmarks: ; Math Processes:]**

Grading Period	Difficulty Level	Performance Indicator
V. DATA ANALYSIS AND PROBABILITY		
B. Statistical Methods		
□ □ □ □		5. Provide examples, and explain how a statistic may or may not be an attribute of the entire population (e.g., intentional or unintentional bias may be present) **[DP.10.5.5; DP Benchmarks: ; Math Processes:]**

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