					CALCULUS (C)					
Kindergarten	Grade 1	Grade 2	Grade 3	Grade	4	Grade 5	Grade 6	Grade 7	Grade 8		Grades 9-12
										MA.912.C.1 Develop an understanding fo limits and continuity. Determine limits and continuity.	MA.912.C.1.1 Demonstrate understanding of the concept of a limit and estimate limits from graphs and tables of values. MA.912.C.1.2 Determine the value of limit if it exists agebraically using limits of sums, differences, products, quotients and compositions of continuous functions.
											MA.912.C.1.3 Find limits of rational functions that are undefined at a point. MA.912.C.1.4 Find one-sided limits. MA.912.C.1.5 Find limits at infinity. MA.912.C.1.6 Decide when a limit is infinite and use
											Imits involving infinity to describe asymptotic behavior. MA.912.C.1.7 Find special limits by using the Squeeze Theorem or algebraic manipulation. MA.912.C.1.8
											Find limits of indeterminate forms using L'Hóptaits Taule. MA.912.C.1.9 Define continuity in terms of limits. MA.912.C.1.10 Given the graph of a function, identify whether a function is continuous at a poin if not, identify the type of discontinuity for the given function.
										MA.912.C.2	MA.912.C.1.11 Apply the Intermediate Value Theorem and the Extreme Value Theorem. MA.912.C.2.1
										Develop an understanding fo and determine	State, understand and apply the definition of derivative. Apply and interpret derivatives geometrically and numerically. MA.912.C.2.2
										derivatives.	Interpret the derivative as an instantaneou rate of change or as the slope of the tangent line. MA.912.C.2.3 Prove the rules for finding derivatives of
											contants, sum, products, quotients and the Chain Rule. MA.912.C.2.4 Apply the rules for finding derivatives of contants, sums, products, quotients and the Chain Rule to solve problems with functions limited to algebraic, trigenometric, lowerse trigenometric, logarithmic and exponential.
											MA.912.C.2.5 Find the derivatives of implicitly defined functions. MA.912.C.2.6 Find derivatives of inverse functions.
											MA.912.C.2.7 Find second derivatives and derivatives of higher order. MA.912.C.2.8 Find derivatives using logarithmic
											differentiation. MA.912.C.2.9 Demonstrate and use the relationship between differentiability and continuity. MA.912.C.2.10
											MA.912.C.2.10 Apply the Mean Value Theorem.

MA.912.C.3 Apply derivatives to solve problems.	MA.912.C.3.2 Find an equation for the tangent line to a curve at a point and use it to make local linear approximation. MA.912.C.3.3 Determine where a function is decreasing and increasing using its derivative.
	MA.912.C.3.4 Find local and aboute maximum and minimum points of a function. MA.912.C.3.5 Determine the concavity and points of infection of a function using its second derivative. MA.912.C.3.6 Sacts graphs by using first and second derivatives compare the corresponding characteristics of the graphs of f, f and f°.
	MA.912.C.3.7 Solve aptimization problems using derivatives. MA.912.C.3.8 Find amerge and instantaneous rate of change explain the instantaneous rate of change is the limit of the average rate of change is the limit of the average rate of change in applications, including velocity, speed and acceleration.
	MA.912.C.3.9 Find the velocity and acceleration of a particle moving in a straight line. MA.912.C.3.10 Model and solve problems involving rates of change, including related rates.
MA.912.C.4 Develop an understanding for and determine integrals.	MA.912.C.4.1 Interpret a definite integral as a limit of Riemann sums. Calculate the values of Riemann sums. Calculate the values of Riemann sums. Calculate the values of MA.912.C.4.2 Apply Riemann sums, the Trapezoidal Rule and technology to approximate definite integrals of functions represented algebraically, geometrically and by tables o value. MA.912.C.4.3 Interpret a definite integral of the rate of change of the quantify over all interval. as
	MA.912.C.4.4 Evaluate definite integrals by using the Fundamental Theorem of Calculus. MA.912.C.4.5 Analyce function graphs by using derivative graphs and the fundamental Theorem of Calculus. MA.912.C.4.6 Evaluate or oxide problems using the properties of definite integrals. Properties are limited to the following
	MA.912.C.4.7 Evaluate definite and indefinite integrals br using integration by substitution.

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Find the volume of a figure with cross-sectional area, including fi		closed interval by using definite integrals.
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		revolution, by using definite integrals.