Mrs. Medlen
AP Calculus AB
Lesson Plans

CARROLL HIGH SCHOOL

	Monday 9/4	Tuesday 9/5	Wednesday 9/6	Thursday 9/7	Friday 9/8
College Board Curriculum Framework Objectives:	*Use information from a table to estimate the instantaneous rate of change at a given time (2.1B1)* *Understand AROC vs IROC and express AROC as a difference quotient (2.1A1)* *The derivative of a function is a limit of the difference quotient as h approaches 0. (2.1A3)* *Know the different notations for derivative (dy/dx, f'(x), and y'). (2.1A4)* *The derivative is IROC and can be used to find rates of change. The derivative is the slope of the tangent line. (2.3)*				
Before:	*Labor Day (Holiday)*	*Homework Discussion	*Homework Discussion (Cumulative Review is due)	*Homework Discussion	*Homework Discussion
During:		*Lesson: Product and Quotient Rule (Ex 6,7)	*Lesson: Equations of Tangent Lines (Ex 8,9)	*Lesson: Horizontal Tangents (Ex 10)	*Lesson: Tabular Data (Derivatives) (Ex 11, 12)
After:		*Group Collaboration: p37, 12, 15 *HW Set: p38, 19-27	*Group Collaboration Set: p39, 28-33 (HW if not completed)	*Group Collaboration Set: p39, 34-36 *HW Set: Derivative Rules Practice Set	*Group Collaboration Set (p40, 37-44) *HW Set: Derivative Rules Practice Set #2
Desired Outcome:		Students will be able to find derivatives using the product and quotient rule.	Students will be able to write equations of tangent lines using techniques of differentiation.	Students will be able to find the x-value in which a function contains a horizontal tangent.	Students will be able to find derivatives using a table of values.
Formative/ Summative:		Student questioning during lessons and group collaboration, homework practice (self-assessment), homework discussion/feedback			
Critical Questions:		*Explain how to use the product and quotient rule to find derivatives.*	*Explain how to write an equation of a tangent line. How do you find the slope of a tangent line?*	*What is a horizontal tangent? Where does this occur on a graph? Explain how this relates to differentiation.*	*Explain how to use tabular data to find derivatives. How do you find a second derivative?*