Name: _____   Period: _____

Chapter 3 Syllabus –Derivatives
- Do all of your homework problems….Make sure you TRY all of them!
- Check all of your answers.
- After you have checked your answers, ASK questions on the problems you can't figure out.
- BEFORE test get any additional help needed on concepts not mastered.

NP = Not Proficient   P = Proficient   M = Mastery

Section	Learning Target	Homework Questions	Self-Evaluation		
3-1	I can calculate the derivate of a function using the definition of derivative. I can express derivatives using different notations. I can graph the derivative of a function. I can interpret derivatives as rates of change and can identify the units. I can write the equation of the tangent line to a curve.	pg 105 # 1-4, 13-16, 18, 21-23, 26, 27, 29, 30	NP	P	M
3-2	I understand different way that a function might be non-differentiable. I understand how to find/graph derivatives on a graphing calculator at a given x. I understand that differentiability implies local linearity and continuity. I can understand the Intermediate Value Theorem for derivatives.	pg 114 # 1-16, 27-32, 34	NP	P	M
3-3	I can use the Power Rule to find derivatives. I can use the product and quotient rule to find derivatives. I can find second and higher order derivatives.	pg 124 # 5, 6, 7, 9, 11, 15-27 odd, 33, 35, 37-40, 46, 52	NP	P	M
3-4	I can calculate the position, velocity, acceleration, and speed for motion along a line. I can calculate the position, velocity, acceleration, and speed for vertical motion. I can interpret the position, velocity, acceleration, and speed using appropriate units.	pg 135 # 8-16, 18, 19, 21, 23-26, 37, 40-46	NP	P	M

3-5	I can calculate the derivates of the trig functions. I can write the equation of the normal line to a curve.	pg 146 #1-11, 21, 23, 27, 38, 46-49	NP	P	M
3-6	I can use the chain rule to calculate derivatives. I can use chain rule in conjunction with product and quotient rule choosing the appropriate order to calculate the derivatives.	pg 153 #11-19, 21, 22, 25, 27, 29, 33, 56, 58, 62, 63, 72, 73	NP	P	M
3-9 day 1	I can calculate the derivates of exponential functions.	pg 178 #1-14, 29-30, 33, 36, 49, 50, 52, 53	NP	P	M
3-9 day 2	I can calculate the derivates of logarithmic functions.	pg 178 #15-26, 37, 39, 40, 42, 61, 52	NP	P	M
3-8	I can calculate the derivates of the inverse trig functions I can calculate the derivatives of inverse functions given information about the function.	pg 170 # 1, 3, 24, 27, 28, 29, 35-40	NP	P	M
3-7	I can calculate the derivatives of implicitly defined function. I can calculate the second and higher order derivatives of implicitly defined functions. I can write the tangent and normal lines to implicitly defined functions.	pg 163 # 1-3, 8, 9, 12-14, 17, 22, 24, 28, 30, 43, 44, 47, 49, 54, 56, 61-64	NP	P	M
Review	I can do AP Free Response Questions of the form: 1.) Data Problems – Estimate derivatives from data, interpret derivatives as rates of change using appropriate units, graph derivatives. 2.) Position, Velocity, and Acceleration Problems – I can calculate the position, velocity, acceleration, and speed of an object, interpret the meanings using appropriate units.	pg 181 #1, 3, 5, 7, 12-16, 22, 30, 39-42, 45, 57-61, 65-67, 71, 72, 81, 82, 83	NP	P	M