Name: _____

Block: _____

Chapter 4 Self-Assessment

Emerging: I am starting to understand the ideas
Developing: I am understanding many of the ideas but I make errors
Proficient: I have a complete understanding of the skills and concepts
Extending: I am pushing my learning to connect to advanced problems and ideas

Section		Level of Comprehension	Assignment Completed
4.1	• I can use linear approximation to make an estimate • I can use linearization to make an approximation for a function		
4.2	• I understand the definition of local extrema of a function. • I know Rolle's Theorem and the conditions required • I can find critical points		
4.3	• I understand the definition of increasing and decreasing functions. I can test for increasing or decreasing functions. • I can use the first derivative test to find relative maximums and relative minimums. • I can use the Mean value theorem.		
4.4	• I understand the definition of concavity and the test for concavity • I can find inflection points. • I can use the second derivative test to find relative minimum and relative maximum.		
4.5	• I can sketch graphs by finding the following ➢ Domain and Range ➢ Intercepts ➢ Asymptotes (Vertical, horizontal and slant) ➢ 1^{st} derivative and extrema ➢ 2^{nd} derivative and concavity and inflection points		
4.6	• I can solve Optimization problems ➢ Primary and Secondary equations ➢ Check if the value is a maximum or a minimum		
4.7	• I can use Newton's method for finding zeros of a function		

Work Habits	G 100% to 80% of the time	S 80% to 60% of the time	N less than 60% of the time
Assignments completed and handed in on time			
Arrive to class on time			
Return after break on time			
Work on the math assignment during class			
Phone use limited to checking math answer keys posted on the website			
If absent: watching the lesson video or reading the lesson notes			

Explain the differences: 1st Derivative test, 2nd Derivative test, and the Test for Concavity

- When do you use each test
- What does the test find
- What do you need to use the test

1st Derivative test

_____

_____

2nd Derivative test

_____

_____

Test for Concavity

_____

_____