

Name: _____

Period: _____

Chapter 5 Syllabus –Integration

- 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 | | |
|-----------|--|---|-----------------|---|---|
| | | | NP | P | M |
| 5-1 | I can approximate the area under a curve using any of the Rectangle Approximation Methods or the Trapezoid Method. | pg 270 #9-12, 16, 18, 28 #9 LRAM, #10 RRAM, #11 MRAM, #12 Trap 6 sub-intervals | NP | P | M |
| 5-2 | I understand how the Rectangle Approximation Method, when taken to the limit, yields a definite integral. I can find the value of a definite integral by using Geometry. I can evaluate a definite integral using the graphing calculator. I understand the terminology and notation associated with integration. | pg 282 # 7-19 odd (no calc), 33-40 (calc), 41-44, 46 | NP | P | M |
| 5-3 | I can use the properties of definite integrals to evaluate integrals. I can find the average value of a function. I can apply the Mean Value Theorem (part 2) to find the location where a function takes on the average value. | pg 290 #1-6, 11-12, 15-18, 37, 40, 41, 45-50 | | | |
| 5-4 day 1 | I can graph $g(x) = \int_a^x f(t)dt$ given the graph of $y = f(t)$. | pg 303 # 57 | NP | P | M |
| 5-4 day 2 | I understand the connection between integral and differential calculus. I can evaluate an integral using the Fundamental Theorem of Calculus Part 2. | pg 302 # 27, 29, 30, 32-35, 38, 39, 42, 43, 45-50 | NP | P | M |

Name: _____

Period: _____

| | | | | | |
|-----------|---|--|----|---|---|
| 5-4 day 3 | I can evaluate the derivative of an integral using the Fundamental Theorem of Calculus Part 1. | pg 302 #1-5, 7, 9, 58, 59, 65-70 | NP | P | M |
| 5-5 | I can use integration to solve real world problems. I can use integration to calculate displacement and total distance traveled. | pg 312 #9-12, 31-36 | | | |
| Review | I can do AP Free Response Questions of the form: 1.) Displacement/Total Distance Traveled – I can use integration to calculate displacement and total distance traveled. 2.) Functions Defined as an Integral – I can answer questions about the function $f(x)$ which is defined in terms of the integral of another function. | pg 316 #9, 11, 15-18, 20-22, 24, 28, 33, 34, 36, 39-42, 45, 46, 50, 51, 54, 56, 60 | NP | P | M |