Math 118 – Week 9

Fall Term 2003

BUCKMIRE

Monday October 20 *Class 20*:

We will look at another application of Riemann Sums. They don't just do area!

Reading:

Smith & Minton, Section 4.4

Homework #13 (*4 points)*:

Smith & Minton, page 363: 50, 57, 61, 68

Due: Class 21

Wednesday October 22 *Class 21*:

We will consider the Fundamental Theorem of Calculus as it relates to initial value problems.

Reading:

Smith & Minton, p. 364–374

Homework #14 (*6 points)*:

Smith & Minton, pp. 372-373: 10, 11, 31, 41, 58, 59

Due: Class 22

Thursday October 16 Lab #6: Techniques of Anti-Differentiation

We will practice some of our techniques of anti-differentiation.

Friday October 24 *Class 22*:

We will look at error control and analyze how error formulas for our numerical integration methods (from Riemann sums in general to Midpoint and Trapezoid methods, as well as Simpson's Rule) vary with N and depend on the derivatives of f.

Reading:

Smith & Minton, Section 4.7

Homework:

Quiz #7: Application of Definite Integrals

Due: Class 23