Outline and review problems for Midterm II

MATH 175, Fall 2014

Briggs & Cochran

1. Using trigonometric substitution to find integrals.

2. Use partial fractions to find integrals.

$$8.4 \# 11, 13, 19, 21, 23, 32, 35, 51, 57, 71$$

3. More on substitution.

4. Approximating a definite integral using numerical integration techniques (Mid-point, Trapezoidal, Simpon's, error estimates).

$$8.6 \#11 [n = 4], 15 [n = 4], 21 [n = 4], p. 512, \#25a$$

5. Determine if an improper integral is convergent or divergent: using proper notation is important

6. Solve a first order separable differential equation.

$$8.8 \# 11, 13, 19, 23, 25, 29, 31$$

7. Sequences (limits, convergence and divergence)

$$9.1 \# 9, 11, 13, 15, 17, 19, 21, 23, 25, 27$$

 $9.2 \# 9 - 21, 35 - 45 \text{ odd}$

8. Extra:

Chapter 8 Review #11, 13, 15, 17, 19, 33, 35, 37