B-14-1 Calculus
Fall 1997
Prof. H. Riecke

Problem Set 9, November 14, 1997

1. Riemann Sums

Read Ch. 5.4 and do the problems 1, 5, 8, 11, 14, 21, 24, 31, 34, 43, 45, **44**.

E.9 Compare your results in problems 11, 14, 21, 24, 31, 34 (for *finite* values of n) with the exact result by calculating the corresponding integrals. Which of the Riemann sums (left end point, right end point or mid point) comes closest to the exact result for a given value of n?

2. Evaluation of Integrals

Read Ch. 5.5 and do problems 1, 5, 7, 10, 19, 29, 37, 39, 47, **22, 41, 48**.

3. Integration by Substitution

Read Ch. 5.7 and do problems 5, 15, 21, 23, 24, 55, 57, 59 **28, 35, 48**
The substitution used in problem 35 is called a *rationalizing substitution*. Why?

Hand in the **bold-faced problems** and the **E-problems** in class on Friday.

Don't forget: The Midterm will be on Monday November 24.