

- Quiz: Thursday, 14 February 2002. The quiz will cover section §7.2 and §7.3. I hope that many of you have realized that in section 7.3, we learn how to make a trigonometric substitution to reduce to one of the integrals we studied in section 7.2.
- Homework E. Due Wednesday, 20 February 2002. §7.5 #34. Some time will be provided to work on these problems in recitation on Tuesday, 19 February 2002. Hint: You may find entry #19 or #20 in the integral table in the back of the book useful in one of the cases.
- Homework #8 §7.5 #1, 3, 5, 7, 9, 11, 18.

Recitation on Thursday, 14 February should begin discussing integration of functions by partial fractions, §7.4 and rationalizing substitutions, §7.5. This will complete our survey of methods of integration—section 7.6 provides a summary of what we have learned. Note that this section includes questions on integration by parts, §7.1. I plan to (re)-examine this topic on test 2.

We now have derived the integration formulae #1-17 (except #5) in the back cover of the book. You will be expected to know these formulae for exam 2.

- Homework #9. §7.6 # 1, 3, 5, 7, 9, 11, 13, 15, 25, 27, 39, 47. §7.8 #1, 5, 9, 11, 17, 19, 20, 21, 27. Additional question: How large does n need to be in order approximate $\int_2^7 \sin(2x) dx$ with an error of at most 10^{-5} by the trapezoid rule, T_n , and by Simpson's rule S_n ?

I hope that we can begin discussion of this assignment on Tuesday, 19 February 2002.

It strikes me that the exercises in the textbook expect too much arithmetic—I will not think less of you if you write out an expression that evaluates to the correct answer, but do not actually punch all of this into your calculator. There is little point in evaluating T_{10} by hand—it would be just as informative to find T_5 . No book is perfect....

Please be sure you understand the last few exercises where you are asked to find a value of n that guarantees a certain accuracy in the answer. You do not need to memorize the form of the error estimates for the methods of approximate integration. If needed on exams, these will be given to you.