REVIEW SUGGESTIONS FOR THE SECOND EXAMINATION

The exam will cover material in Chapters 9 and 10 of the text, including (1) inverse functions (especially exponential, logarithmic and trigonometric functions), (2) basic facts about the exponential and logarithmic functions including differentiation and antidifferentiation formulas, antiderivatives and limits of Riemann sums, (3) inverse trigonometric functions (including the ability to simplify expressions like arccos(sin x) plus basic differentiation and integration formulas), (4) the hyperbolic functions including definitions and differentiation/integration formulas, (5) use of trigonometric identities and changes of variables to simplify and evaluate definite and indefinite integrals (including recognizing candidates for such substitutions), (6) integration by parts including some skill at recognizing candidates for using this method, (7) use of partial fractions to integrate rational expressions given by the quotient of one polynomial by another, especially in cases where the numerator is a constant or linear polynomial and the denominator is a quadratic polynomial. The file `notes1005.pdf` has more specifics regarding Chapter 10.

There will be six problems with varying amounts of credit, and none will involve applications of integrals.

The WebWorks problems and the posted documents of notes for the lectures were sources for some of the problems on the exam, so these are recommended as sources for practice problems.