

Study Guide for Exam 2

Test policies

No books, calculators or computers allowed on the exam. One page (one sided) of handwritten notes allowed on the exam.

Sample exam

Here's what you might expect on an exam. Do these exercises from the book (there will be fewer problems on a real exam). No guarantees about exactly how similar are these to the exam questions.

7.1) 2

7.2) 10

7.3) 4

7.5) 2

Supplement 3) 7

7.6) 21

Supplement 4) How many poles does $\frac{1}{x^2-1}$ have? What are the poles?

7.7) 7, 22

10.1) 61

10.2) 33

10.3) 4

10.4) 5

Topics covered

7.1) Numerical integration

7.2) Integration by parts

7.3 and 7.5) Trigonometric integrals, integrals of hyperbolic trig functions

Supplement 3) Integration using the complex exponential

7.6 and Supplements 4 and 5) Fundamental theorem of algebra, partial fractions expansion, and integration using partial fractions.

7.7) Improper integrals

10.1) Sequences

10.2) Series

10.3) Series with positive numbers: comparison and integral tests

10.4) Absolute convergence

10.5) Ratio and root tests