

## Study Guide for Exam 1

### 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.

5.2) 53, 59

5.3) 8

5.4) 14

5.5) 6

5.6) 58

6.1) 15

6.2) 17, 56

6.3) 10, 37

11.3) 6, 16

11.4) 14

Supplement 1) Compute  $(1 - i)^{10}$

Supplement 2) 1b) and 6a)

### Topics covered

5.2-5.4) Fundamental theorem of calculus.

5.5) Integral of rate is the total change.

5.6) Substitution.

6.1) Area between curves

6.2) Volume of a solid, mean (average) value of a function.

6.3) Volumes of solids of revolution.

11.3) Polar coordinates, converting to and from, converting equations.

11.4) Computing areas in polar coordinates.

Supplement 1) Complex numbers

Supplement 2) Complex exponential