

# Engineering and Science Mathematics I

Review for Midterm II

on November 11, 2002

1. Curve sketching: Given a function, find

- (a) Domain
- (b) Vertical Asymptotes
- (c) Horizontal Asymptotes
- (d) Extrema
- (e) Points of Inflection

Use all this information to sketch the graph.

2. Use integration to compute the area under a curve or the area between two curves.

3. Techniques of Integration (Chapter 9): The most important as well as difficult aspect of integration is to spot which strategy is going to be successful. On the exam you will not be told which method to use, so recommended practice material are the Chapter 9 Miscellaneous Problems on page 563.

All integration problems on the exam will be taken literally from pages 563–566.

4. Volume computations: Volume by method of cross section and volume by method of cylindrical shells will be on the exam.

Exam rules:

- No notes and calculators.
- Paper will be supplied.
- Please leave the 3rd and 6th row in the lecture hall free.