

## 18.01 End of Term – Fall 2004

### Part I (not to hand in)

The following material will be on the final; practice problems with solutions are given for you to test your understanding, but it is not a problem set to be handed in.

**Lecture 35.** Fri. Dec. 3 Infinite series; simple convergence tests

Geometric series; harmonic series. Read: pp. 439-442(top)

Comparison tests. pp. 451-3 (skip proof in Example 3)

Integral test. pp. 455-457(top)

Work: 7A-1abc; 7B-1abf 7B-2acde

**Lecture 36.** Mon. Dec. 6 Formal Taylor series.

Read: 14.4 through p. 498 (bottom); skip everything involving the remainder term  $R_n(x)$ .

Differentiation and integration of series. Read: 14.3-p.490(top); Examples 1-5.

Work: 7C-1ac; 7D-1adg; 7D-2bde (skip radius of convergence)

### Final Examination: Thurs. Dec. 16, 9-12AM Dupont

The final examination will cover the entire semester's work, including the material since the last exam (improper integrals, infinite series).

To prepare for it, make sure you understand the solutions to the problems on the four hour exams, and to the practice problems given out for each of the hour exams.

If you find there are still topics you miss, go back to the problem sets which covered those, and practice on the relevant Part I problems that were assigned for them.

### Makeup 18.01 during IAP

During all of IAP, there will be a daily one or two hour review session, going through the entire course, with the hour exams occurring at the relevant times (and a make-up hour exam the next day, for those who failed the earlier one). In general, there will be two or three review sessions preceding each exam. At the end will be a final exam.

Students who pass this review course will receive the usual 12 units credit for having passed 18.01.

Students who receive a D in 18.01 this semester will be eligible to take this review course. It counts as 6 units on the IAP load, so students also in 8.01L can continue with that course.

Students who receive an F in 18.01 this semester will in general not be eligible for the review course; they should retake 18.01 in the spring. If there are extenuating circumstances which make it likely that the student will be able to pass the review course, they can be considered.

Students who fail 18.01 will be notified by e-mail the day after the final, so they can make plans for the IAP course if they wish to do so and are eligible for it.