

Math 356:01 — Fall 1998
MW4 ARH-200
Prof. Bumby

Second handout We are now ready to get into the heart of the course. We will begin with chapters 5, 6 and 9 leading to the *Quadratic Reciprocity theorem*. This result is remarkable for having a large number of different proofs, though we will only give one. The proof in the text is essentially Gauss's third proof.

When quadratic reciprocity is safely behind us, we can go back and look at chapter 8 on primitive roots. We will finish with topics from chapter 7 on cryptology. A schedule through the Thanksgiving Recess will be given here. There are five lectures after the break, but any topics introduced then will not appear on the final exam. I will find a selection of topics from the text to amuse you while you are finishing the graded work. The time will also be available to review earlier parts of the course.

Let me also remind you that copies of the slides from each lecture are available through the "Learning Center" on the third floor of the Douglass Chemistry Building. They are not deposited there immediately, but are almost surely available with a week of the lecture.

Here is the work that has been scheduled.

Date	section	page	problems
October 19	5.1	190	2, 4, 14
	5.2	199	8, 12
October 21	5.3	204	4, 16
October 26	6.1	213	2, 4, 6
October 28	6.2	221	2, 4, (8&10)
November 02	9.1	342	2, 12, 14
November 04	9.2	356	(2&3), 4
November 09	9.3	364	2, 4
November 11	8.1	283	2, 4
	8.2	287	2, 6
November 16	8.3	296	2, 4
November 18	7.1	242	4, 8, 14
	7.2	259	2, 4, 14
November 23	7.3	258	2, 4
	7.4	264	2, 6, 12

Note that the final exam is scheduled for 12 – 3 PM on Tuesday, December 15.