

# M328K Number Theory

## Unique No. 54545 Spring 2017

Dr. Bart Goddard  
Office: RLM 11.104  
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Hours: MW 3:00–4:15, F 3:00–3:50 or by appointment

**Rules:** Don't miss class. Don't be late. Don't buy plane tickets which conflict with exams. Don't pack up early. Staple homework. Don't be rude.

**Text:** *Elementary Number Theory* 6th Ed. Rosen.

**Students with disabilities:** The University of Texas at Austin provides, upon request, appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY

<b>Grading:</b> Homework:	10%
3 Midterm exams:	60%
<u>Final Exam:</u>	<u>30%</u>
Total:	100%

We will be using the +/- grading system: 90% is at least an A, 86.7% is at least an A-, 83.3% is at least a B+, 80% is at least a B, etc. Usually, there's a good curve.

**Midterms:** Nearly chiseled in stone, the dates for the midterm exams are Wednesday February 15, Friday March 24, and Monday April 24. There are no make-up exams. If you miss an exam, it's not automatically a zero (but it might be a zero.) At the end of the course, I'll make a rough guess as to what your score would have been, and you'll have to live with it.

**Final Exam:** It's comprehensive. Of course. The date of the final is probably Saturday May 12 from 2:00 to 5:00 p.m. The location of the final exam is determined later in the semester.

**Homework** is handed in on Fridays at the *beginning* of class. The assignments are announced in class on Wednesdays (and no where else.) Late homework will not be accepted (and it hurts to ask.) Each assignment gets its own staple. Most exercises require some work. That work must be shown for any credit. Sloppy homework, unstapled homework, homework on which liquid has been spilled, won't be accepted. Graded homework which is not picked up in a timely fashion is discarded, and won't be available as evidence in the case of a grade appeal.

**Calculators** will not be allowed on any exams.

**Health:** It's part of the students' responsibility to keep themselves able. Please eat decently, sleep sufficiently and live in a clean area. A broken arm due to a mechanical bull ride is not an excuse for missing an exam. Stress and disorientation are common among university students, and a stressed out person gets sick more easily. You probably should treat your body and mind at least as well as you treat your car, so don't wait till you crash and burn before availing yourself of the many, free services UT offers. For instance:

Counselling and Mental Health Center  
Student Services Bldg (SSB), 5th Floor  
Hours: M–F 8am–5pm, 512 471 3515, [www.cmhc.utexas.edu](http://www.cmhc.utexas.edu)

**Assignments:**

Prepare neat and complete solutions to each exercise and hand in each set on the due date announced in class. The following are subject to change.

Day	Section	Exercises
1	1.5	2, 5, 9, 10, 11, 15, 16, 19, 21, 38, 40
2	1.2	2, 6, 7, 8, 19, 20, 21, 23, 28
3	1.3	1, 3, 6, 7, 8, 9
4	App. B	1, 3e, 4, 5, 7 (page 612)
5	1.4	1, 3, 4, 5, 8, 14, 40
6	1.1	3, 8, 12, 13
7a	1.5	27, 29, 31, 34, 42, 44
7b	2.1	1, 4, 18, 19, 22, 23, 28, 29
8	3.1	2, 4, 5, 6, 13, 15, 18, 24, 25, 26
9	3.2	2, 3, 12, 14
10	3.3	1, 5, 6, 10, 14, 18, 24, 27
11	3.4	1, 3, 19, 20
12	3.5	2, 3, 4, 6, 7, 10, 12, 14, 15, 32, 34, 42, 43, 44, 58, 70
13		Exam 1
14	3.6	1, 4, 15, 17, 20, 21
15	3.7	1, 3, 6, 19
16	4.1	2, 4, 5, 9, 12, 13, 20, 22, 24, 30, 32, 33, 34, 36, 42, 43
17	4.2	2, 5, 6, 8, 11, 12, 18
18	4.3	2, 4, 7, 12, 30, 36
19	4.4	1, 3, 4, 8
20	4.6	1, 2
21	5.1	2, 3, 4, 11, 12, 22, 30d
22	5.5	2, 3, 6, 8, 12, 19, 22
23	6.1	1, 3, 4, 6, 9, 10, 12, 15, 16, 18, 26, 27, 28, 38
24	6.3	1, 4, 6, 7, 10, 11, 18, 19
25	7.1	1, 2, 4, 8, 15, 18, 30, 34
26		Exam 2
27	7.2	1, 2, 4, 10, 15, 20, 21, 22, 23, 24, 40
28	7.3	1, 2, 4, 5, 7, 9, 11, 18, 29, 30
29	9.1	1, 5, 6, 8, 10, 11, 16, 19, 20
30	9.2	2, 3, 6, 8, 11
31	9.3	1, 4, 9
32	9.4	1, 2, 3, 6
33	11.1	2, 3, 4, 5, 6, 7, 11, 13, 14, 19, 21, 27, 28a, 30
34	11.2	1, 2, 4, 6
35	13.1	1a, 2, 6, 8, 12, 21, 23, 25
36	13.2	2, 3, 4, 6, 10, 14, 19, 20
37	13.3	1, 2, 3, 5, 9
38		Exam 3