

Look at Chapters 1,2, and 3 of Rosen. In particular, skim Chapter 1, reading §1.4 closely, look through Chapter 2 if the topics interest you, and read Chapter 3 thoroughly. Note that in class we will not go through Chapter 3 in order. Note also that there are many topics discussed without proof in Chapter 3.

The following problems give you practice with the concepts in Chapters 1,2, and 3. I have tried to pick an interesting collection of problems. Some are very easy, some hard. You might first browse through the problems and see which you can do easily and which interest you. The majority will not be turned in. (Note: there are answers to most odd-numbered problems in the back of the book.) Grouped problems (like 26–29) are concerned with a single topic.

I will ask you to hand in some of these problems for a grade later. I may also assign additional problems. Some of these problems may form the basis of projects or in-class presentations.

Chapter 1

§1.1, p. 14 #8,23,77

§1.2, p. 22 #3,7,17

§1.3, p. 28 #32 (in addition, use this problem to find an explicit formula for the Fibonacci numbers – this one would make a good project)

§1.4, p. 34 #6,16,22,35,42,46

Chapter 2

§2.1, p. 44 #14,27

§2.2, p. 61 #1,4,10,13

Chapter 3

§3.1, p. 76 #2,5,6,7,13,14,21,26–29

§3.2, p. 84 #1,5,6,8,9,14,21,22,25,31

§3.3, p. 93 #1,3,5,7

§3.4, p. 104 #1,5,6,7,8,11,13,14,15,17,19–23 (but 21 in #23 should be 6),
31,33,36,43,46,60,67,70,72

§3.5, p. 117 #1,3,11–14,16,20

§3.6, p. 123 #1,2,3,9,13,17–19,22