

CS 2802: Homework 5

February 21, 2019

Handed out Feb. 18; due March 4 (in two weeks!)

- Read Chapter 9 (except for 9.10, which we won't cover, other than Fermat's Little Theorem, at the end)
- Do the following problems:
 - 9.3
 - 9.7
 - 9.8(a)
 - 9.11 [Hint: Theorem 9.2.2 is *really* useful here.]
 - 9.30(i), (ii), (iii) (If the statement is true, provide a short proof; if it's false, give a counterexample.)
 - 9.46
 - 9.50
 - 9.62(a),(b),(c) [Hint: for part (a), you can the results of Exercise 9.11, whether or not you actually got the right proof.] Think about (but don't hand in) 9.62(d).
 - 9.80
 - Additional problem: Prove that if $a|b$ and $b|c$, then $a|c$.

You should be able to do 9.76, 9.78, and 9.79, although you don't have to hand them in. Some of you might find 9.85 interesting, although again, you don't have to hand it in.