

Homework 2 (CS/Math 385)

due September 19, 2018

Universal Rule for all homework: Unless otherwise stated, all solutions must include a brief proof that they are correct. For problems that involve following a procedure we have discussed in class, showing the steps you took and giving an indication of what was done at each step (for example writing that “State q_3 was removed to obtain the following equivalent super-NFA.”) suffices to satisfy the rule.

Section 2.3: 11 (given a finite set of strings, construct an NFA that accepts exactly the strings in that set), 12 (given a DFA for L , construct an NFA for L^R)

Section 3.1: 4, 8, 16c, 20abcd

Section 3.2: 3, 4c, 10c

Section 3.3: 2, 7, 14 (it’s probably easiest to convert an arbitrary DFA)