

# CS 2802: Homework 9

March 31, 2019

Handed out April 8, due April 22

- Read Chapter 20.1–20.3 and Chapter 13.3–13.4 in the handout from Rosen on finite automata.
- Do the following problems:
  - 20.2(a), (b) (Again, specify carefully the sample space, the probability on it, and the relevant random variables on it.)
  - 20.7
  - 13.3, 8 (If you think it's true, prove it. If you think it's false, give a counterexample.)
  - 13.3, 12 (just a “yes” or “no” suffices; no proof needed)
  - 13.3, 14 (just state the language in the next three exercises)
  - 13.3, 16
  - 13.3, 18
  - 13.3, 20
  - 13.3, 23
  - 13.3, 25
  - 13.3, 39
  - 13.3, 43 (just state the language in this exercise and the next)
  - 13.3, 45
  - 13.3, 52

Think about (but don't hand in) 19.12(b), 19.26, 19.27, 19.30, 20.1, 20.2(c). There are lot of things to think about with probability!