CS 420 Fall 2017
Homework 11

Due: November 30
Note: The problems on this homework, except for the first one, require material that we will only cover in class on Tuesday. I am putting them on this homework so you will have solutions to study for the test on December 4. Please try as many as you can between Tuesday and Thursday.

1. Problem 5.26
   [Hint: The proofs are similar to the proofs that $A_{LBA}$ is decidable and $E_{LBA}$ is undecidable.]
2. Exercise 5.4.
3. Problem 5.22.
4. Problem 5.23.
5. Problem 5.24.
6. Problem 5.25.
7. Is it possible to $m$-reduce $ALL_{CFG}$ to $ALL_{DFA}$? Explain your answer.
8. Is it possible to $m$-reduce $EQ_{TM}$ to $\overline{A_{TM}}$? Explain your answer.