## Homework 11 (CS/Math 385) due December 11, 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 11.2: 9

Section 12.1: 5, 6

Section 12.2: 2, 5

You may use facts we proved in class without proving them again.