Homework 3, due Monday, September 18

READING: Chapters 4, 5, 6.

1. Exercise 1 on page 184. (20 points)

2. Exercise 11 on page 185. (20 points)

3. Design a DFA that accepts the language consisting of the set of those strings over \{a, b, c\} in which the number of a’s plus the number of b’s plus twice the number of c’s is divisible by six. (20 points)

4. Design an NFA that accepts the following language over the alphabet \{a, b, c\}:

   \[(abc)^*(ab)^*\]

   (20 points)

5. Exercise 36 on page 187. (20 points)