1. Use the technique from Section 6.1 in the book (i.e. constructing an NFA-\(\lambda\) for a given regular set by following the recursive definition of the regular set) to build the state diagram of an NFA-\(\lambda\) that accepts the language \(b(ab)^*b\). (20 points)

2. Exercise 3 on page 217. (There is an error in the book, it should say: The language of the DFA M in Example 5.3.7 consists of...) (20 points)

3. Exercise 4 on page 217. (20 points)

4. Exercise 14.b. on page 218. (20 points)

5. Exercise 1 on page 247. (20 points)