1. Give an RE for the set of strings of a’s, b’s and c’s which contain abc as a substring.

2. Give both a DFA and an RE for the following language. The alphabet is \{0, 1\}. The empty string is in the language. If a string starts with a 0, then the number of 1’s is odd. If a string starts with a 1, then it does not contain 01 as a substring.

3. Give an RE for the language of all binary strings of length at least 2 that begin and end with the same symbol.

4. Give an NFA for the language of the RE a*b + b*a

5. Show how to modify an NFA to have a unique accept state with no transition ending at the start state and no transition starting at the accept state.

Due: Thursday January 27