COMP3721 Tutorial 3

1 NFAs and Regular Expressions

1. Draw state diagrams for NFAs that accepts the following languages.
   (a) $(ab)^*(ba)^* \cup aa^*$
   (b) $((ab \cup aab)^*a^*)^*$

2 NFA= DFA = Regular Expression

1. (a) Find a simple NFA accepting $(ab \cup aab \cup aba)^*$.
   (b) Convert the NFA of (a) to DFA.
2. Prove that if L is regular, then so is $L' = \{w : wu \in L \text{ for some string } u\}$.