COSC 341 – Tutorial 7

1. Are the following languages automatic languages? If so, construct an NFA for that language. If not, prove that the language is not automatic.

   (a) $L = \{w|$ in w every a is followed by a $b\}$

   (b) $L = \{w|$ for every a in w there is a distinct b following $a\}$

   (c) $L = \{a^i|i$ is prime$\}$

Homework

1. Are the following languages automatic languages? If so, construct an NFA for that language. If not, prove that the language is not automatic.

   (a) $L = \{a^i|i = n^2, n \in \mathbb{N}\}$

   (b) $L = \{w|w \in \{a, b\}^*,$ the total number of a's and b's in w is divisible by 3$\}$