3rd Coursework
16/2/2004


1. For $\Sigma = \{a, b, c\}$ give regular expressions defining the following languages:
   
   (a) Words which contain a $b$.
   (b) Words which do not contain a $b$.
   (c) Words where all as appear before all the cs.
   (d) Words s.t. the number of as plus the number of bs is odd.
   (e) Words which contain the sequence $aa$.
   (f) Words which do not contain the sequence $aa$.

2. Construct the NFA $N((ab+ba)^*)$ following the construction in the notes.

3. Apply the subset construction to the result of 2. to obtain a DFA, i.e. construct the reachable part of $D(N((ab+ba)^*))$. 