Homework #10

1. Use the algorithm we gave in class to create a non-deterministic finite automaton for the regular expression $aa(a|b)b^*$. (Assume that $\Sigma = \{a, b\}$.) Show your steps!

2. Use the algorithm from class to convert the non-deterministic automaton constructed above to a deterministic one. Show your steps!

3. Extra for honors section: Explain how we know that regular expressions describe the same set of languages described by right-linear grammars.

Things to keep in mind:

a. This is due by the beginning of class on Apr. 11!

b. Type it.

c. This can be no more than two double-spaced pages (two and a half for honors section).

d. Keep in mind that there are funny symbols here you may never have used or printed before. Leave time to make sure you have that right so that you can get this in on time.