

Automata Theory: Assignment 4

Due date: September 20 (Thursday)

Problem 1 (6 points)

For each of the following three languages on $\Sigma = \{a, b\}$, draw a *deterministic* finite automaton that accepts it:

- (a) All strings that have no b 's (note that it includes λ).
- (b) All strings with at least two a 's and any number of b 's.
- (c) All strings with at most two a 's and any number of b 's.

Problem 2 (4 points)

For the alphabet $\Sigma = \{a, b\}$, draw a deterministic finite accepter that is equivalent to the following nondeterministic accepter:

