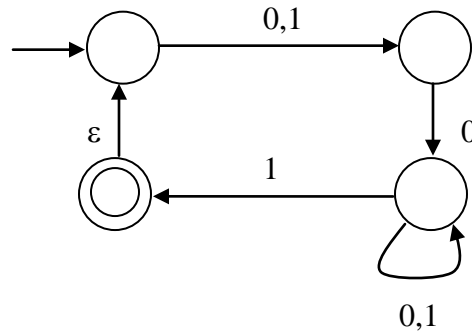


CS 181 Homework 1
Finite Automata and Regular Languages
Due Thursday, July 20, 2017

1. Given NFA N



find the language $L(N)$ and build DFA DN equivalent to N .

2. Build DFA D and NFA N such that $L(D) = L(N)$, which consists of all binary strings that have a substring 00110001.

3. Find if the language $L = \{ a^3b ; a, b \in \Sigma \}$ is regular and prove that your answer is correct.