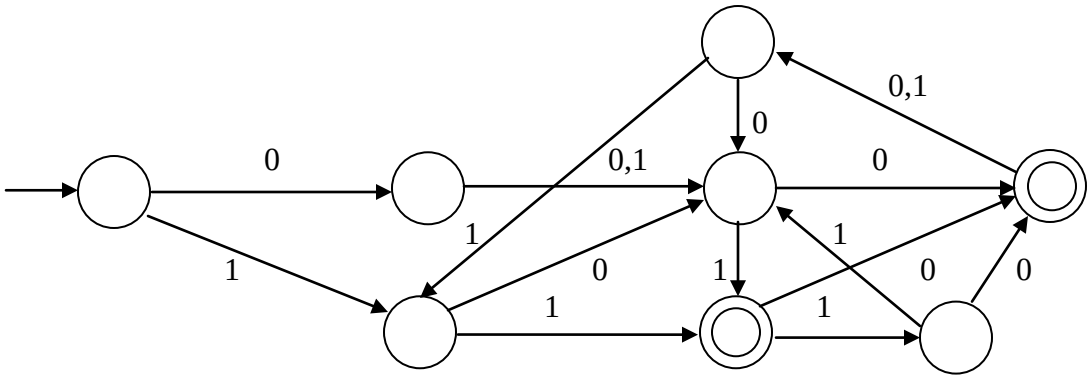
CS 181 Homework 2

Regular and context-free languages

Due not later than *Thursday, August* 3, 2017

Problem 1. Minimize:



Problem 2. L = { $a^n b^m c^{2(n+m)}$; $n \geq 0$, $m \geq 0$ }

Find if L is

a) a regular language;
b) a context-free language.

In case (a), build a finite automaton *A* such that L(*A*) = L.

In case (b), build a PDA *D* and a formal grammar G such that L(*D*) = L(G) = L.

Problem 3. Is any finite language regular? Prove that your answer is correct.