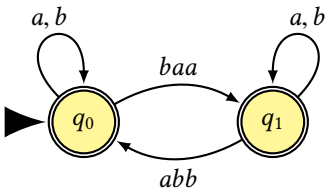
CSCI 340 — Homework 4

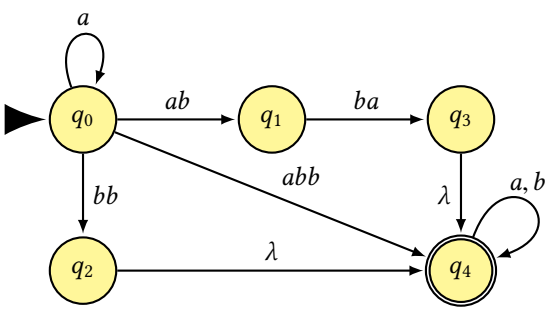
Dr. Schwartz

1. For each of the following Transition Graphs below, convert them to Regular Expressions using the Bypass Algorithm

(a)



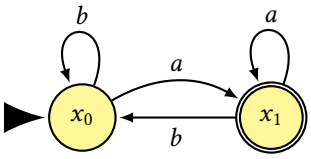
(b)



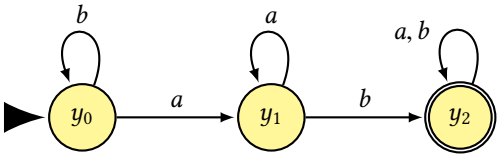
2. Given FA_1 and FA_2 below, construct Finite Automaton for:

   (a) $FA_1 + FA_2$ (b) $FA_1 FA_2$ (c) $FA_2{}^*$

FA_1

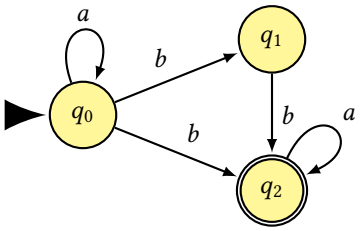


FA_2

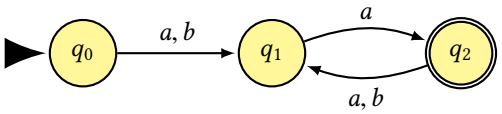


3. For each of the following NFAs below, convert them to Finite Automaton

(a)



(b)



4. For the language accepted by the following machine, find a different FA with four states. Find an NFA that accepts the same language and has only seven edges (where edges with two labels are counted twice).