CSCI 340 — Homework 5

Dr. Schwartz

1. Given the following transition and output tables, produce their Moore machines

(a)

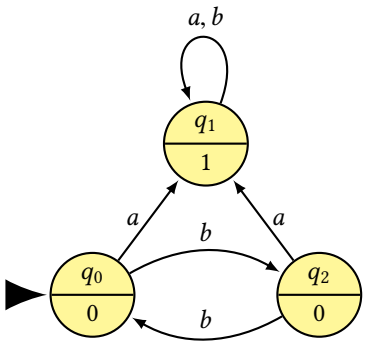
state	a	b	**Output**
q_0	q_0	q_1	1
q_1	q_0	q_2	0
q_2	q_2	q_2	1
q_3	q_1	q_1	0

(b)

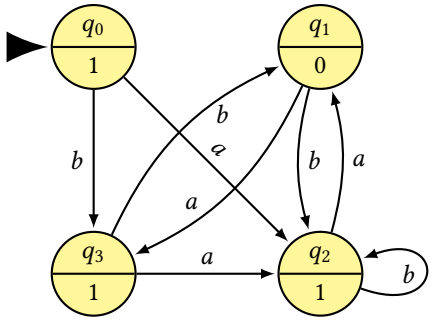
state	a	b	**Output**
q_0	q_3	q_2	0
q_1	q_1	q_0	0
q_2	q_2	q_3	1
q_3	q_0	q_1	0

2. Given the following Moore machines, produce their transition and output tables

(a)



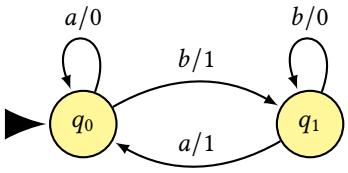
(b)



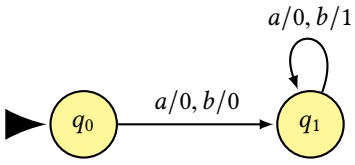
3. Convert the above Moore machines to Mealy machines

4. Convert the following Mealy machines to a Moore machine

(a)



(b)



5. Design a machine to perform a parity check on the input string. The output of the string ends in 1 if the total number of 1-bits in the input is odd and 0 if the total number of 1-bits is even. Did you choose a Mealy or Moore machine? Why?