Talen en Automaten
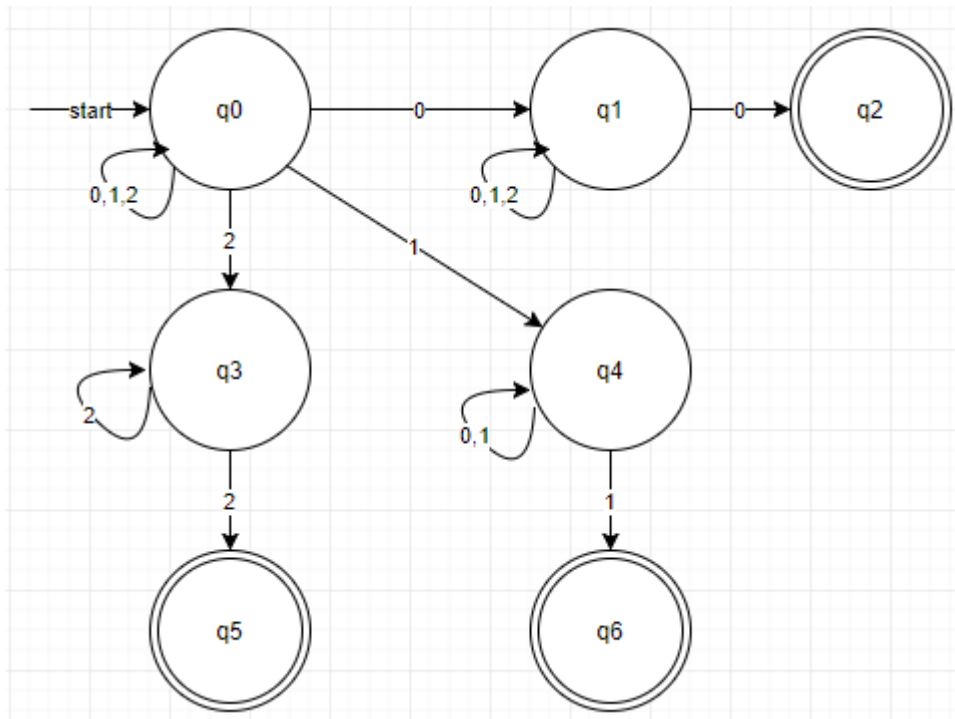## Assignment 3

December 18, 2017

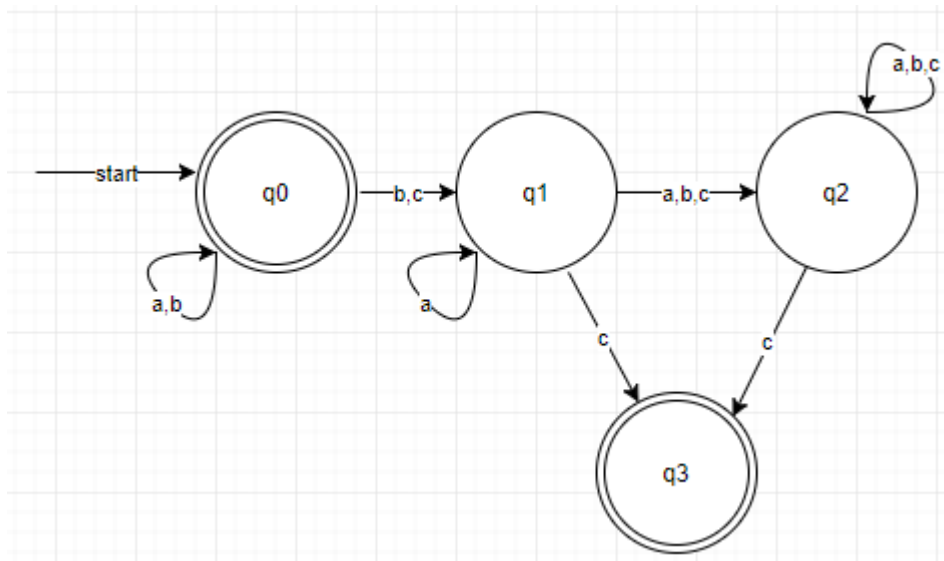**Exercise 1**

2101:

$\delta(q0, 2101) = \delta(\delta(q0, 2), 101) = \delta(q0, 101) =$
$\delta(\delta(q0, 1), 01) = \delta(q4, 01) =$
$\delta(\delta(q4, 0), 1) = \delta(q4, 1) = \delta(\delta(q4, 1)\lambda) = \delta(q6, \lambda) = q6$
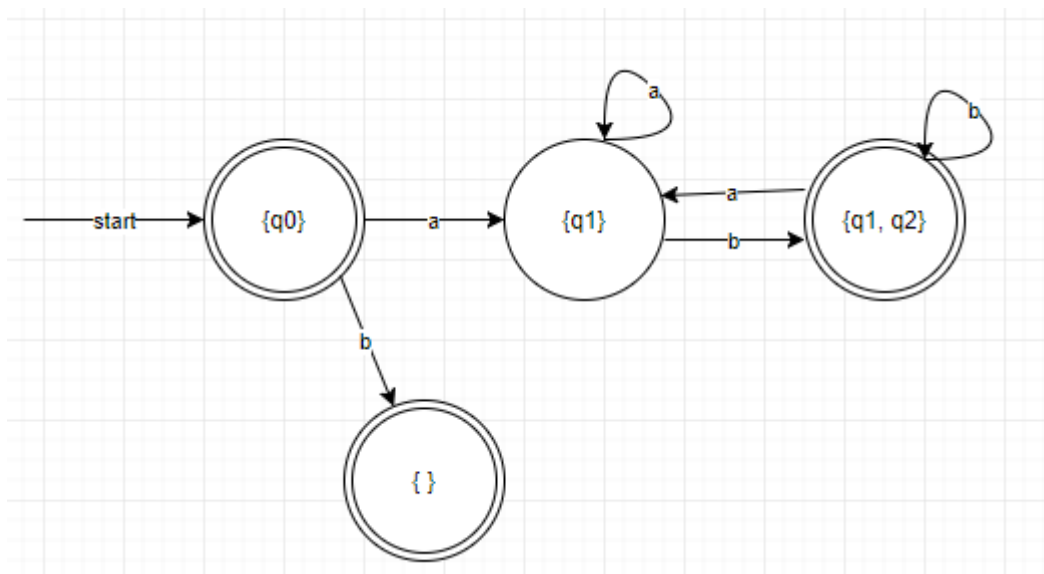
121: There are 3 possibilities:

1). $\delta(q0, 121) = \delta(\delta(q0, 1), 21) = \delta(q0, 21) = \delta(\delta(q0, 2), 1) = \delta(q0, 1) = \delta(\delta(q0, 1), \lambda) = q0$

2). $\delta(q0, 121) = \delta(\delta(q0, 1), 21) = \delta(q0, 21) = \delta(\delta(q0, 2), 1) = \delta(q3, 1)$ which is not possible.

3). $\delta(q0, 121) = \delta(\delta(q0, 1), 21) = \delta(q4, 21)$ which is not possible.

Exercise 2

Exercise 3

Exercise 4