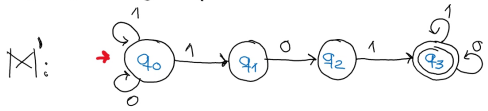
AUTÔMATOS FINITOS DETERMINISTOS x AUTÔMATOS FINITOS NÃO DETERMINISTICO

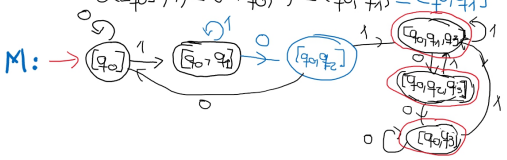
Considere o AFND abaixo:



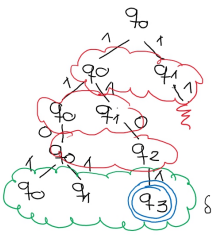
CONSTRUINDO M_1 ➡ AFD, a partir de M'

M: $\delta([q_0],0) \equiv \delta'(q_0,0) = \{q_0\} \equiv [q_0]$

$\delta([q_0],1) \equiv \delta'(q_0,1) = \{q_0,q_1\} \equiv [q_0,q_1]$



1101 ∈ L(M)?



$\delta'(q_0,0) = \{q_0\}$

$\delta'(q_0,1) = \{q_0,q_1\}$

$\delta'(q_1,0) = \{q_2\}$; $\delta'(q_1,1) = \{\}$

$\delta'(q_2,0) = \{\}$; $\delta'(q_2,1) = \{q_3\}$

$\delta'(q_3,1) = \{q_3\}$; $\delta'(q_3,0) = \{q_3\}$

$\delta([q_0,q_1],0) \equiv \delta'(q_0,0) \cup \delta'(q_1,0) = \{q_0\} \cup \{q_2\} = \{q_0,q_2\} = [q_0,q_2]$

$\delta([q_0,q_1],1) \equiv \delta'(q_0,1) \cup \delta'(q_1,1) = \{q_0,q_1\} \cup \{\} = \{q_0,q_1\}$

$\delta([q_0,q_2],0) \equiv [q_0]$

$\delta([q_0,q_2],1) \equiv [q_0,q_1,q_3]$

$\delta([q_0,q_2,q_3],0) = [q_0,q_3]$

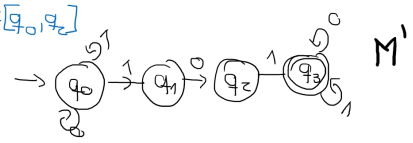
$\delta([q_0,q_2,q_3],1) = [q_0,q_1,q_3]$

$\delta([q_0,q_1,q_3],0) = [q_0,q_2,q_3]$

$\delta([q_0,q_1,q_3],1) = [q_0,q_1,q_3]$

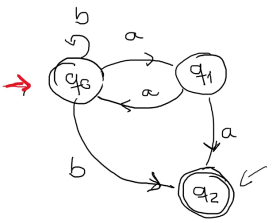
$\delta([q_0,q_3],0) = [q_0,q_3]$

$\delta([q_0,q_3],1) = [q_0,q_1,q_3]$



M'

M' AFND



$\delta([q_0], a) = [q_1]$

$\delta([q_0], b) = [q_0, q_2]$

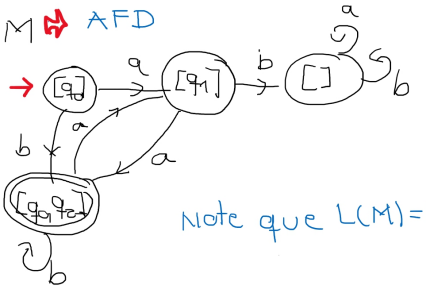
$\delta([q_1], a) = [q_0, q_2]$

$\delta([q_1], b) = [\,]$

$\delta([q_0, q_2], a) = [q_1]$

$\delta([q_0, q_2], b) = [q_0, q_2]$

M ⇒ AFD



Note que L(M) = L(M')