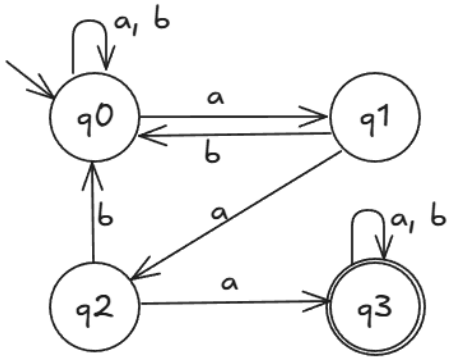
a. $M_0 = \langle \{q_0, q_1, q_2, q_3\}, \{a, b\}, \delta_0, q_0, \{q_3\} \rangle$,

$\delta_0 =$

	a	b	λ
q_0	$\{q_0, q_1\}$	$\{q_0\}$	$\varnothing$
q_1	$\{q_2\}$	$\{q_0\}$	$\varnothing$
q_2	$\{q_3\}$	$\{q_0\}$	$\varnothing$
q_3	$\{q_3\}$	$\{q_3\}$	$\varnothing$

.



Defino δ':

Q' \ Σ	a	b
{q0}	{q0, q1}	{q0}
{q0, q1}	{q0, q1, q2}	{q0}
{q0, q1, q2}	{q0, q1, q2, q3}	{q0}
{q0, q1, q2, **q3**}	{q0, q1, q2, q3}	{q0, q3}
{q0, **q3**}	{q0, q1, q3}	{q0, q3}
{q0, q1, **q3**}	{q0, q1, q2, q3}	{q0, q3}

M_0' = <Q', {a, b}, δ', {q0}, {{q0, q1, q2, **q3**}, {q0, **q3**}, {q0, q1, **q3**}}>