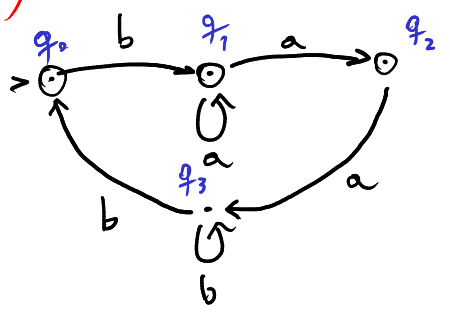
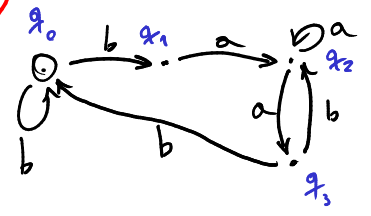


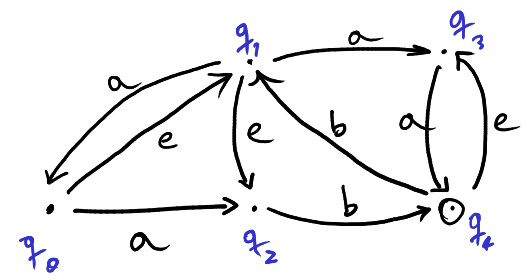
1º)



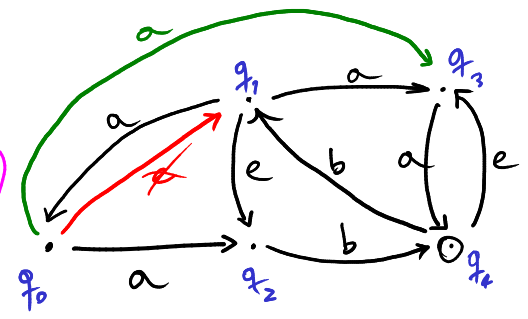
b)



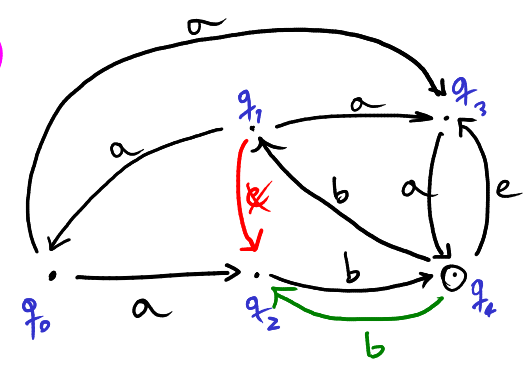
2º)



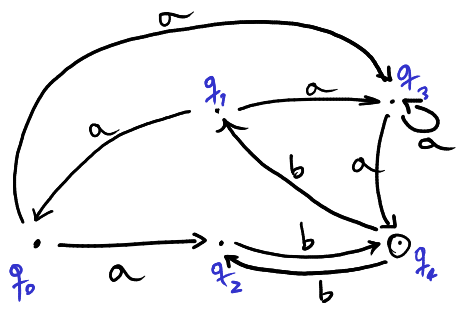
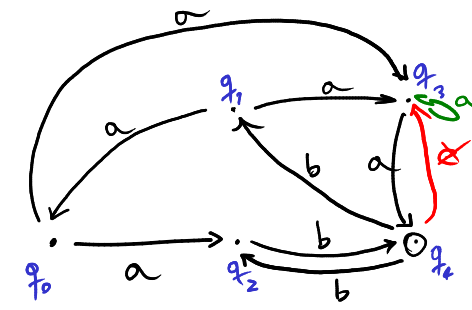
Elimino as transições vazias uma por uma:
Caso 2, primeira regra:



Caso 1, primeira regra:



Caso 1, primeira regra



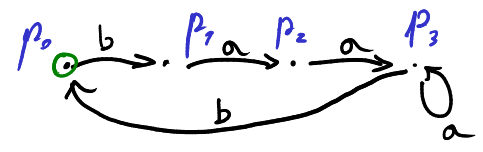
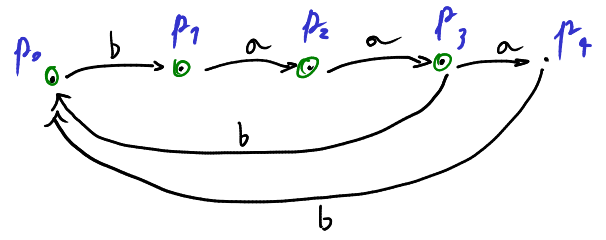
(Poderia escolher q2:b -> q3 também, mas escolhi q3:a -> q3, pois loops são mais simples)

p0
p1
p2
p3
p4

	a	b
p0	{q0}	{q1}
p1	{q1}	{q2}
p2	{q2}	{q3}
p3	{q3}	{q0}
p4	{q0}	{q1}

p0
p1
p2
p3

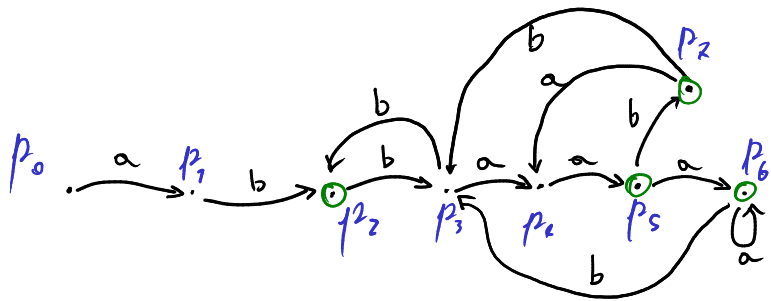
	a	b
p0	{q0}	{q1}
p1	{q1}	{q2}
p2	{q2}	{q3}
p3	{q3}	{q0}



p0
p1
p2
p3
p4
p5
p6
p7

	a	b
p0	{q0}	{q1}
p1	{q0}	{q1}
p2	{q1}	{q2}
p3	{q2, q1}	{q0, q3}
p4	{q0, q3}	{q1, q2}
p5	{q0, q3, q1}	{q1, q2}
p6	{q1, q2}	{q2, q1}
p7	{q0, q2, q3}	{q0, q3}

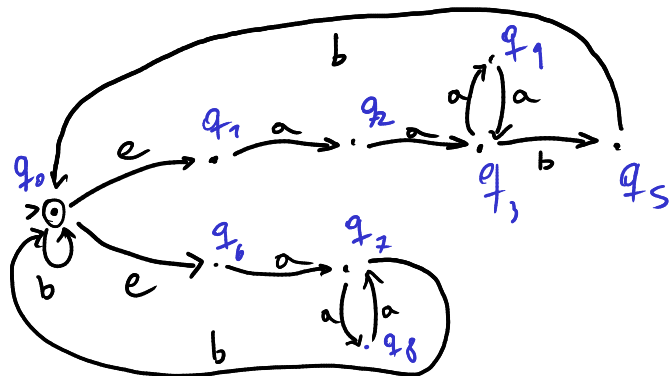
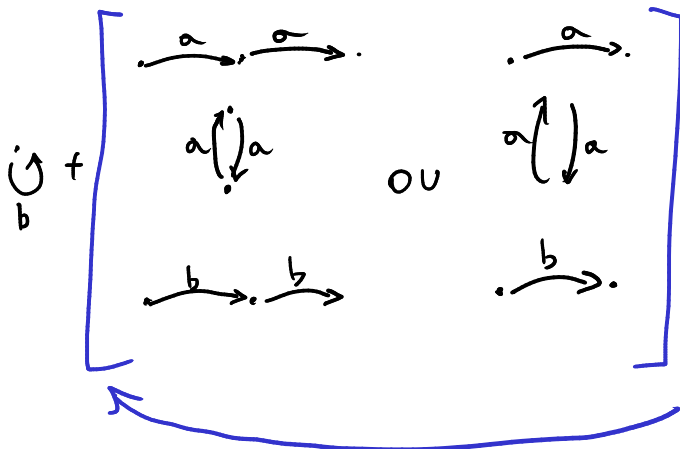
Resultado:



3^o)

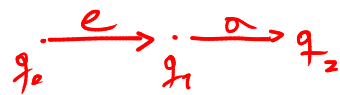
a)

$$b^* (aa(aa)^*bb \cup a(aa)^*b)^*$$

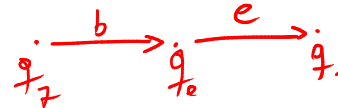


Eliminação de transições vazias

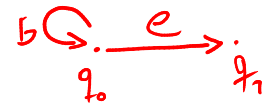
Caso 2, primeira regra



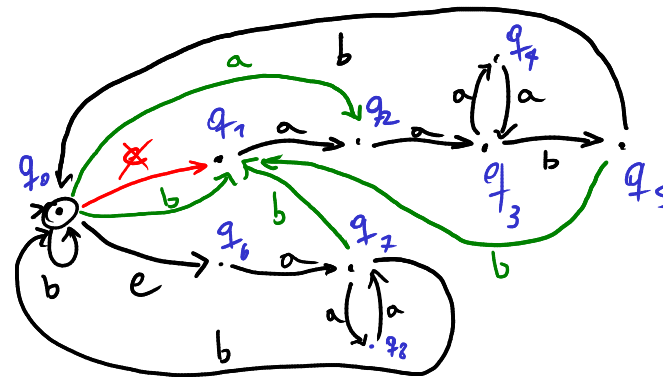
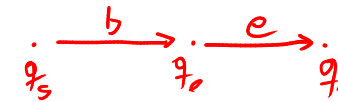
Caso 1, primeira regra



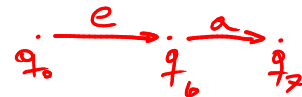
Caso 1, segunda regra



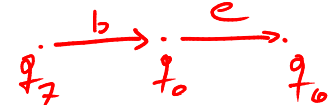
Caso 1, primeira regra



Caso 2, primeira regra



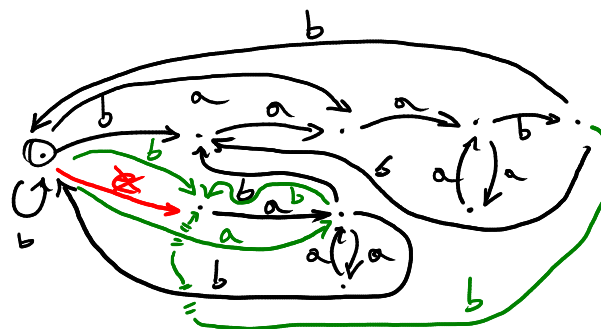
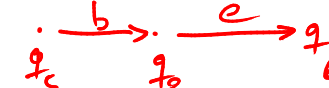
Caso 1, primeira regra



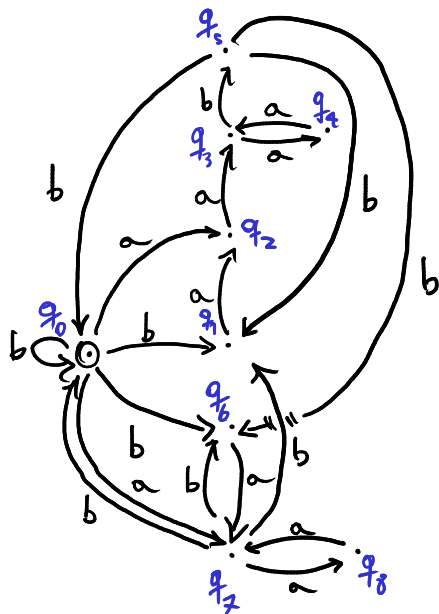
Caso 1, segunda regra



Caso 1, primeira regra

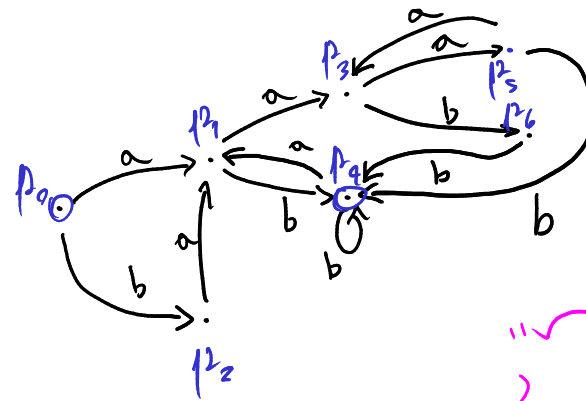


Rearranjando o autômato, temos



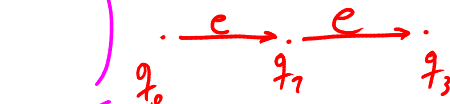
Transformo em determinístico

	a	b
$\{q_0\}$	$\{q_2, q_7\}$ \times	$\{q_1, q_6\}$ \times
$\{q_2, q_7\}$	$\{q_3, q_8\}$ \times	$\{q_0, q_1, q_6\}$ \times
$\{q_1, q_6\}$	$\{q_2, q_7\}$ \times	\emptyset \times
$\{q_3, q_8\}$	$\{q_1, q_6\}$ \times	$\{q_5\}$ \times
$\{q_0, q_1, q_6\}$	$\{q_2, q_7\}$ \times	$\{q_0, q_1, q_6\}$ \times
$\{q_2, q_7\}$	$\{q_1, q_6\}$ \times	$\{q_0, q_1, q_6\}$ \times
$\{q_5\}$	\emptyset	$\{q_0, q_1, q_6\}$ \times
\emptyset	\emptyset	\emptyset



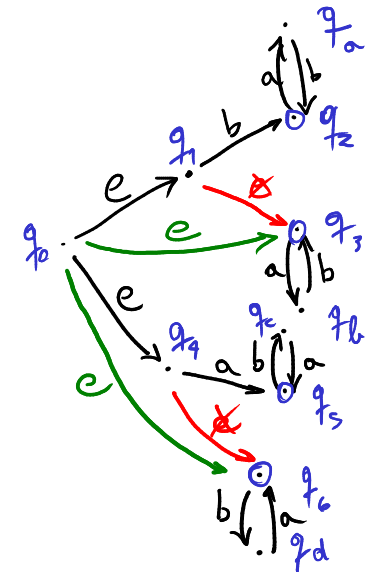
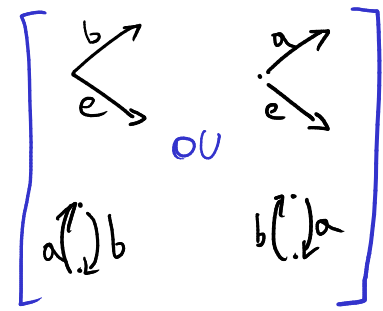
Eliminação de transições vazias:

Caso 1, primeira regra

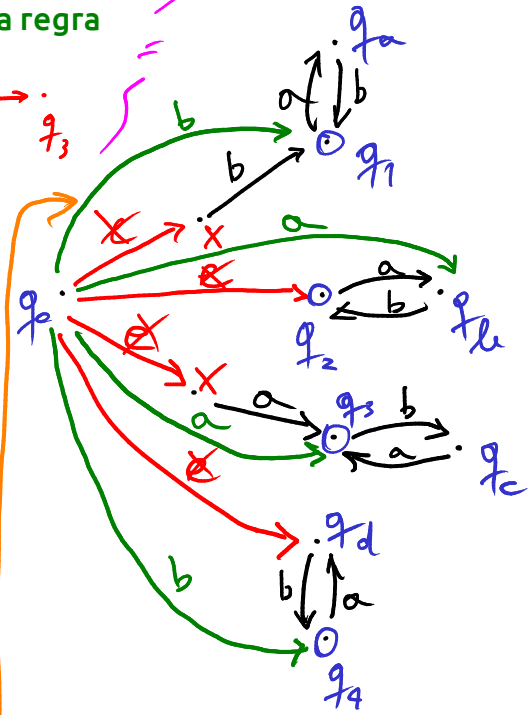
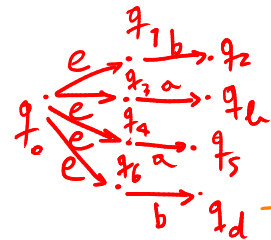


b)

$$(b \cup e)(ab)^* \cup (a \cup e)(ba)^*$$

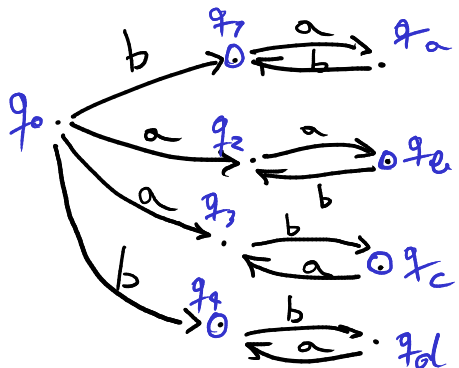


Caso 2, primeira regra

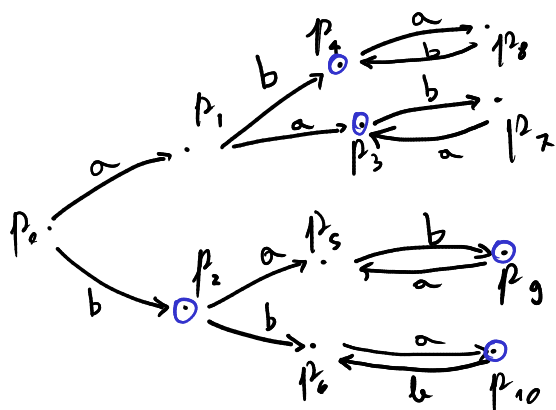


Próxima página...

Reorganizando:

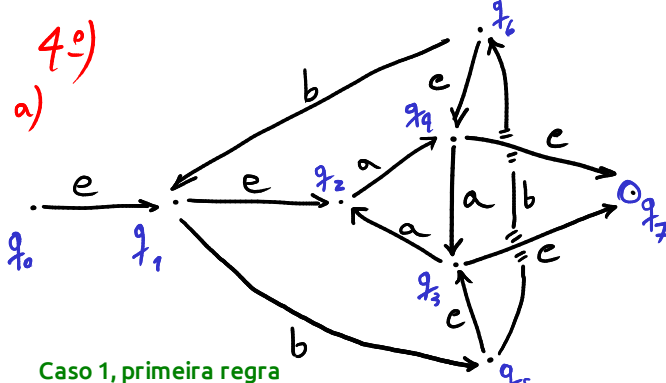


	a	b
p_0	$\{q_0\}$	$\{q_1, q_2\}$
p_1	$\{q_3, q_4\}$	$\{q_5, q_6\}$
p_2	$\{q_7, q_8\}$	$\{q_9, q_{10}\}$
p_3	$\{q_{11}\}$	$\{q_{12}\}$
p_4	$\{q_{13}\}$	$\{q_{14}\}$
p_5	$\{q_{15}\}$	$\{q_{16}\}$
p_6	$\{q_{17}\}$	$\{q_{18}\}$
p_7	$\{q_{19}\}$	$\{q_{20}\}$
p_8	$\{q_{21}\}$	$\{q_{22}\}$
p_9	$\{q_{23}\}$	$\{q_{24}\}$
p_{10}	$\{q_{25}\}$	$\{q_{26}\}$

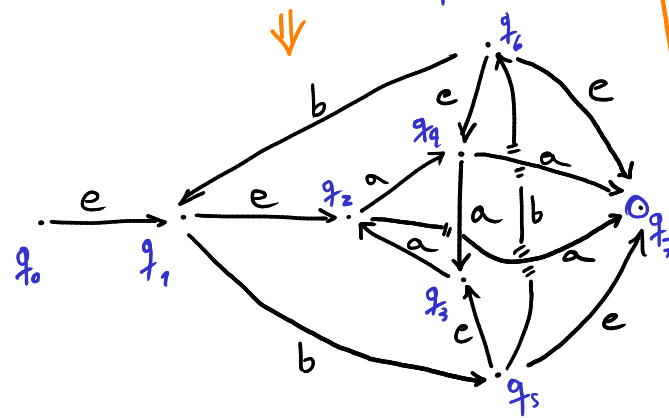
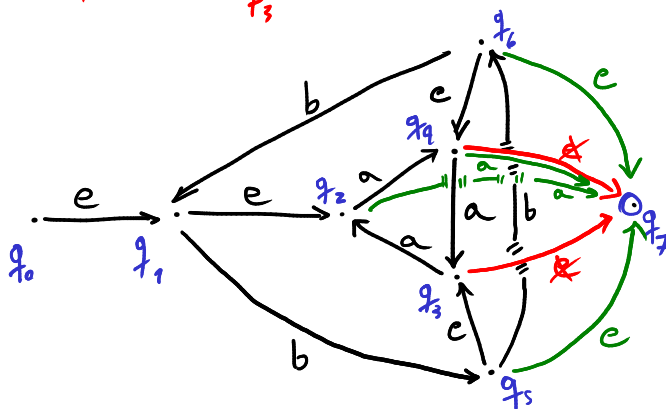
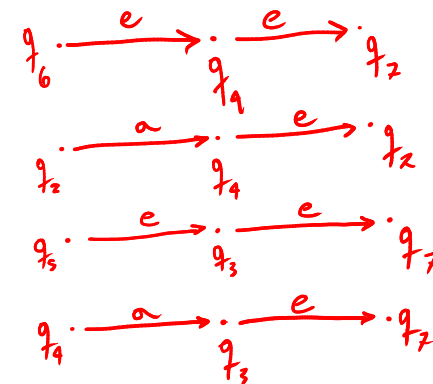


4º)

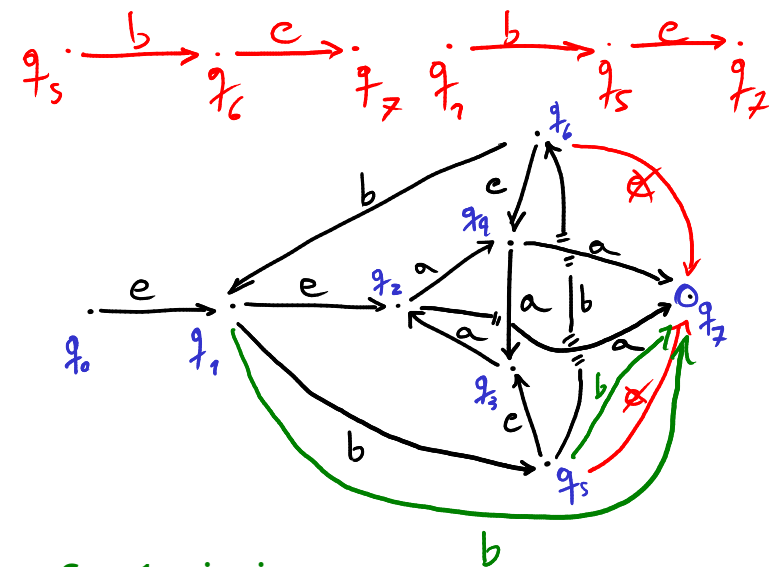
a)



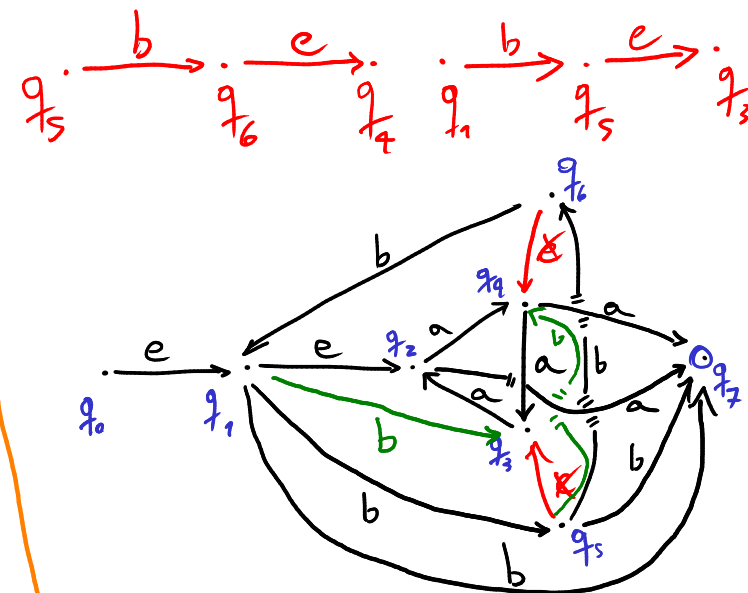
Caso 1, primeira regra

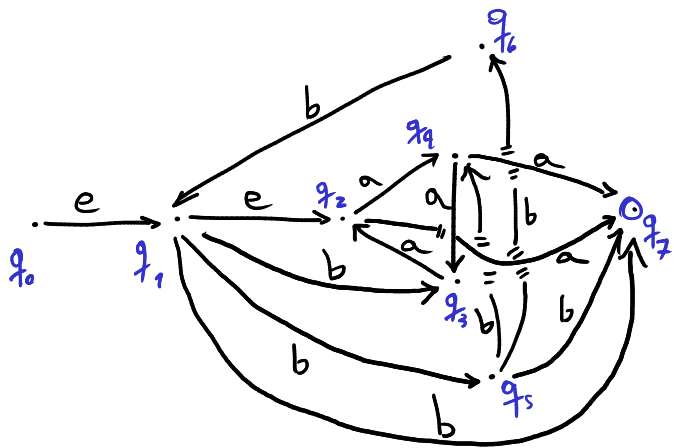


Caso 1, primeira regra

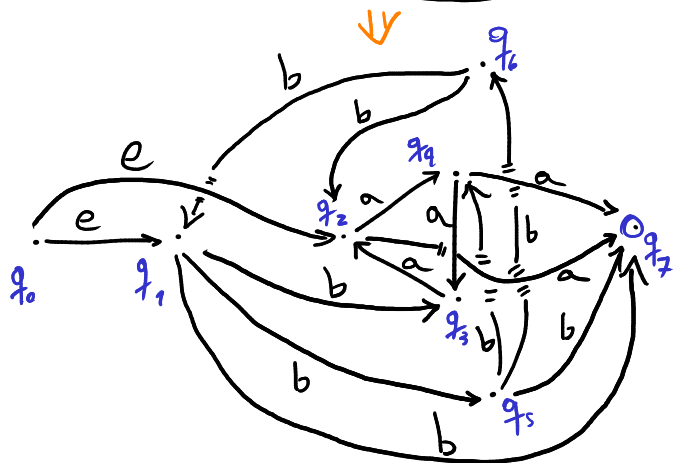
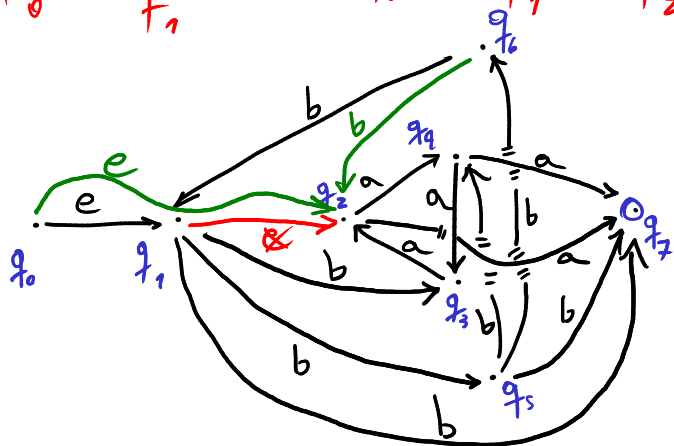
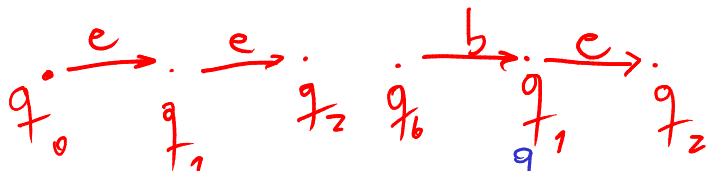


Caso 1, primeira regra

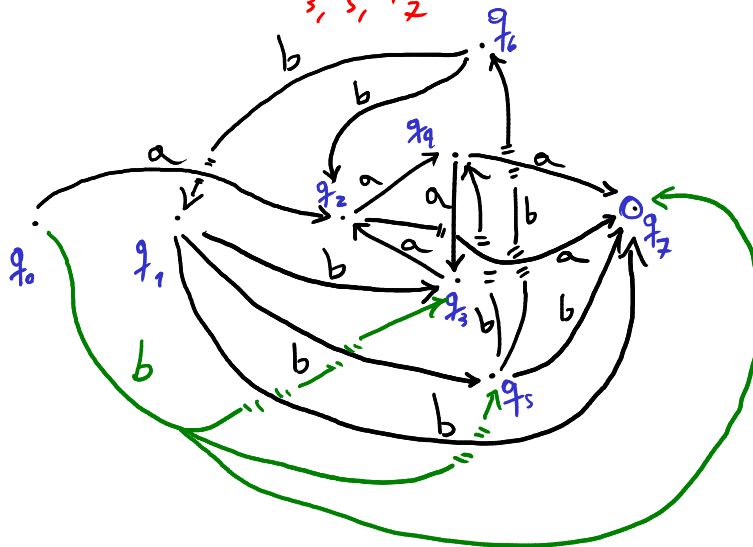
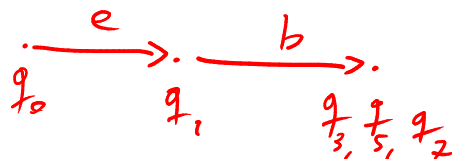
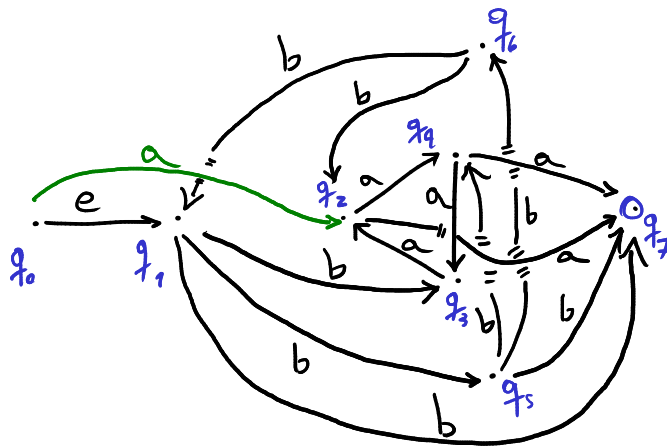
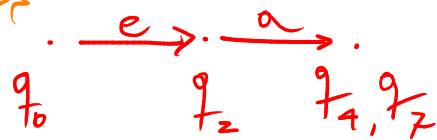




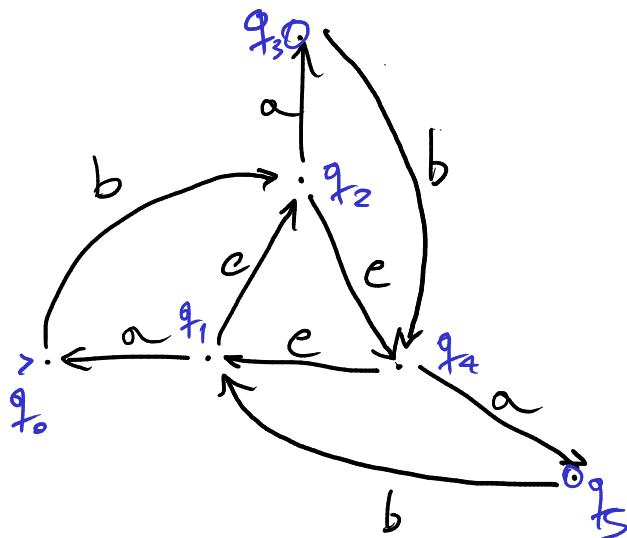
Caso 1, primeira regra



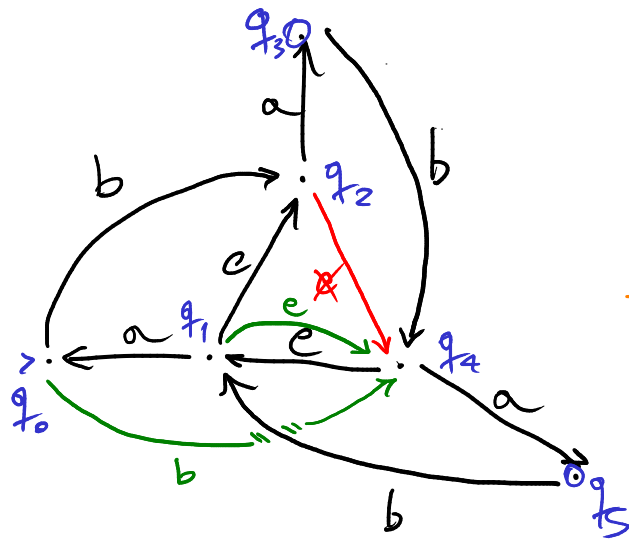
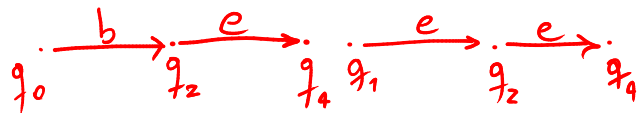
Caso 2, primeira regra



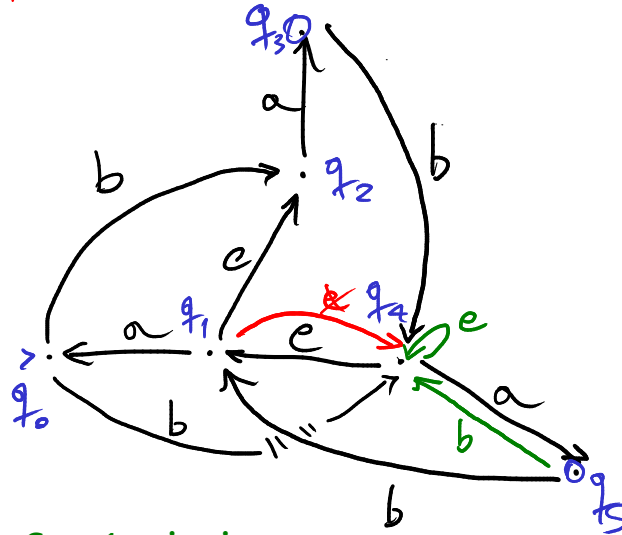
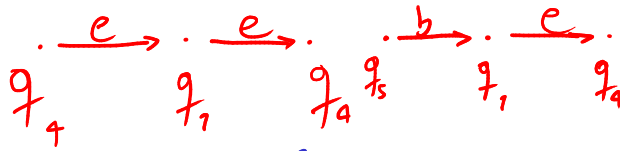
b)



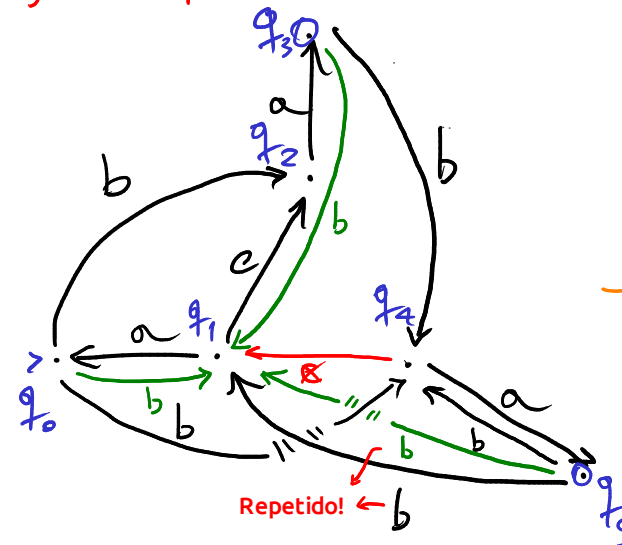
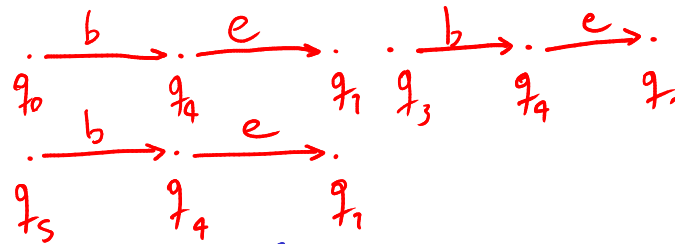
Caso 1, primeira regra



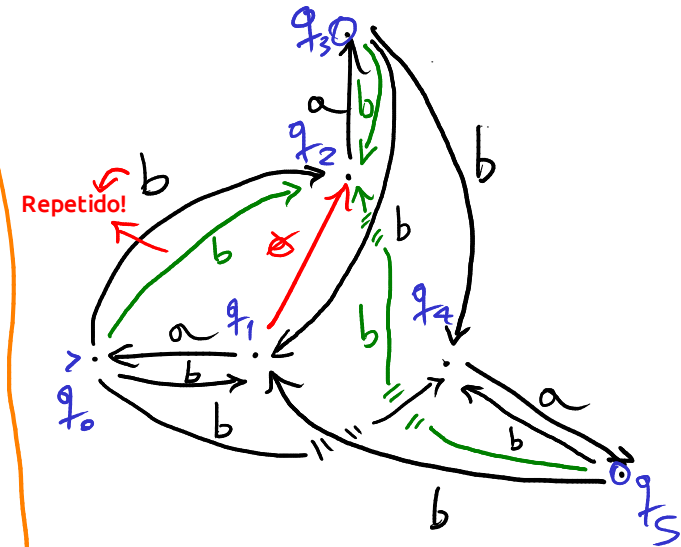
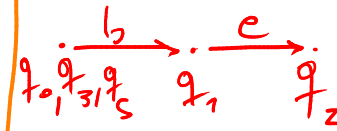
Caso 1, primeira regra



Caso 1, primeira regra



Caso 1, primeira regra



Rearranjando o autômato:

