

Determinización

b. $M_2 = (\{0, 1, 2, 3, 4, 5, 6\}, \{a, b\}, \delta_2, 0, \{6\})$

	a	b	λ
0	{1}	{2}	{4}
1	\emptyset	\emptyset	{0, 3}
2	\emptyset	\emptyset	{0, 3}
3	{4}	\emptyset	\emptyset
4	\emptyset	\emptyset	{5}
5	{6}	{6}	\emptyset
6	\emptyset	\emptyset	{5}

$$C\lambda: P(Q) \rightarrow P(Q) \quad \text{Clausura-}\lambda$$

$$C\lambda(K) = \{x \in Q : \exists q \in K \wedge (q, \lambda) \vdash^*(x, \lambda)\}$$

Construimos $M = (Q, \Sigma, \delta, Mq_0, F) \vdash_q L(M) = L(M_2)$

$$Q \subseteq P(\{0, 1, 2, 3, 4, 5, 6\}) \quad \Sigma = \{a, b\} \quad Mq_0 = C\lambda(\{0\}) = \{0, 4, 5\}$$

δ	a	b
$\{0, 4, 5\}$	$C\lambda(\{1, 6\})$ $= \{0, 1, 3, 4, 5, 6\}$	$C\lambda(\{2, 6\})$ $= \{0, 2, 3, 4, 5, 6\}$
$\{0, 1, 3, 4, 5, 6\}$	$C\lambda(\{1, 4, 6\})$ $= \{0, 1, 3, 4, 5, 6\}$	$C\lambda(\{2, 6\})$ $= \{0, 2, 3, 4, 5, 6\}$
$\{0, 2, 3, 4, 5, 6\}$	$C\lambda(\{1, 4, 6\})$ $= \{0, 1, 3, 4, 5, 6\}$	$C\lambda(\{2, 6\})$ $= \{0, 2, 3, 4, 5, 6\}$

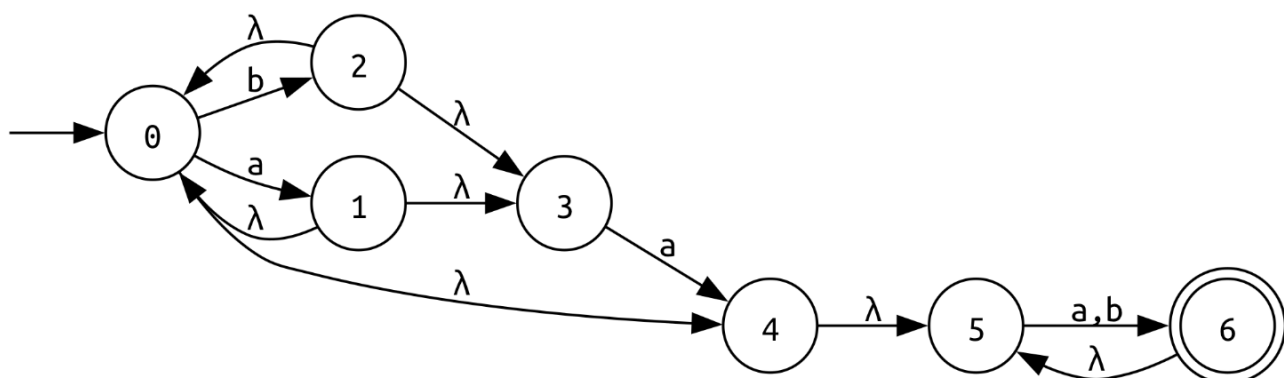
Renombramos los estados por comodidad

$$A = \{0, 4, 5\} \quad B = \{0, 1, 3, 4, 5, 6\} \quad C = \{0, 2, 3, 4, 5, 6\}$$

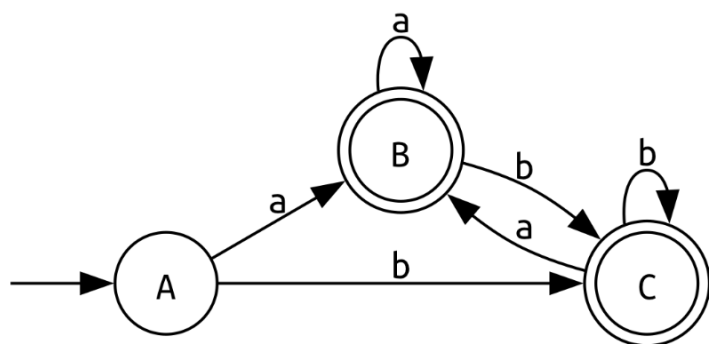
$$Q = \{A, B, C\}$$

$$F = \{q \in Q : q \cap \{6\} \neq \emptyset\} = \{B, C\}$$

M_2 AFND- λ



M AFD



$$A = \{0, 4, 5\}$$

$$B = \{0, 1, 3, 4, 5, 6\}$$

$$C = \{0, 2, 3, 4, 5, 6\}$$

Minimización

Estados	\equiv_0	a	b	\equiv_1	a	b	\equiv_2
A	NF	F	F	◇	○	○	□
B	F	F	F	○	○	○	△
C	F	F	F	○	○	○	△

Terminamos porque $(\equiv_1) = (\equiv_2)$

M' AFD mínimo tq $L(M') = L(M)$

$$M' = (\{\square, \triangle\}, \{a, b\}, \delta', \square, \{\triangle\})$$

$$\delta(\square, a) = \triangle$$

$$\delta(\triangle, a) = \triangle$$

$$\delta(\square, b) = \triangle$$

$$\delta(\triangle, b) = \triangle$$

