

Lista de Exercícios 13 - Autômatos

1- $F = \{q_0, q_2\}$

$NF = \{q_1, q_3, q_4, q_n\}$

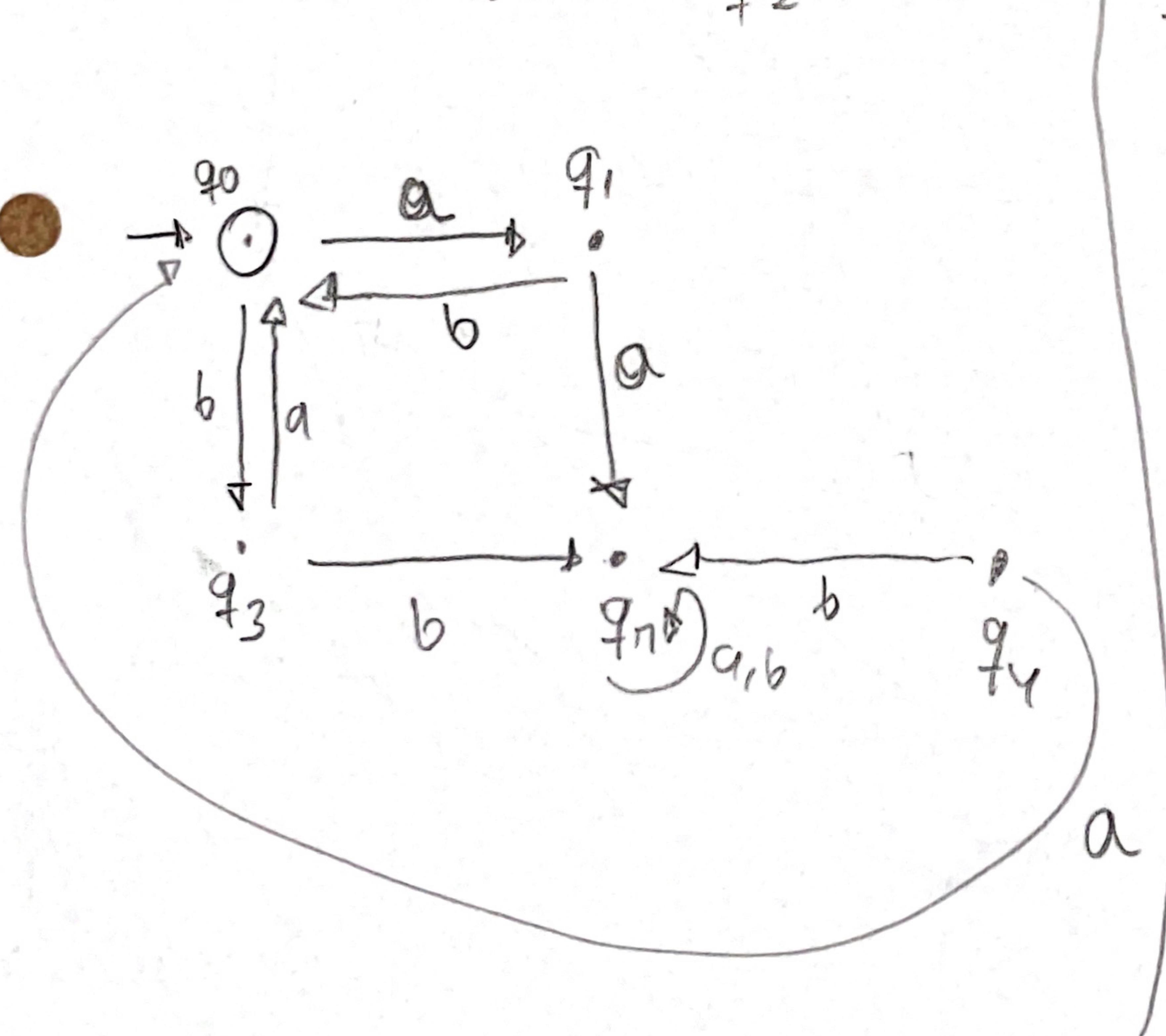
	a	b
NF	NF	NF
NF	NF	NF

	a	b
NF	NF	F
F	F	NF
NF	NF	NF

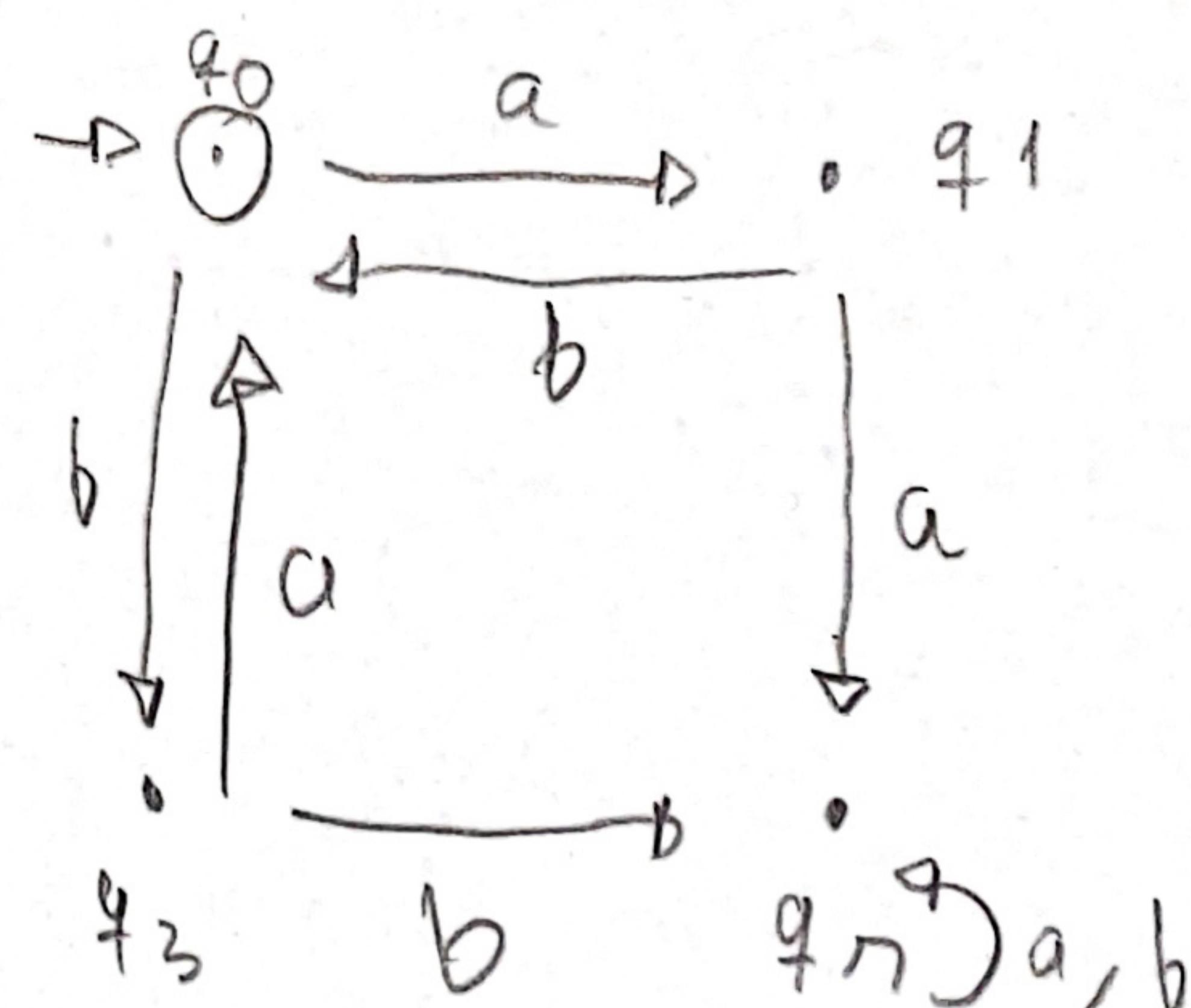
$A_1 = \{q_0, q_2\}$ $A_3 = \{q_3, q_n\}$

$A_2 = \{q_1\}$ $A^u = \{q_n\}$

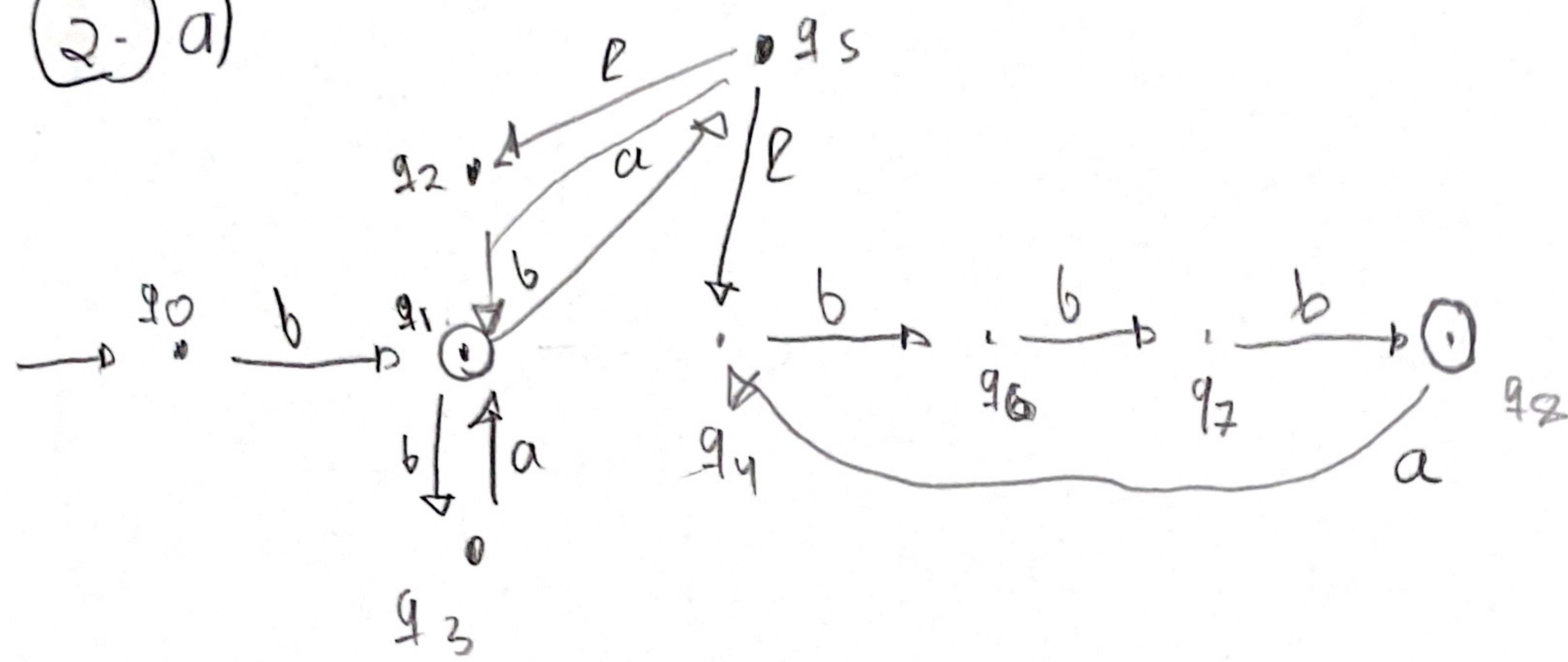
I - Vamos remover q_2



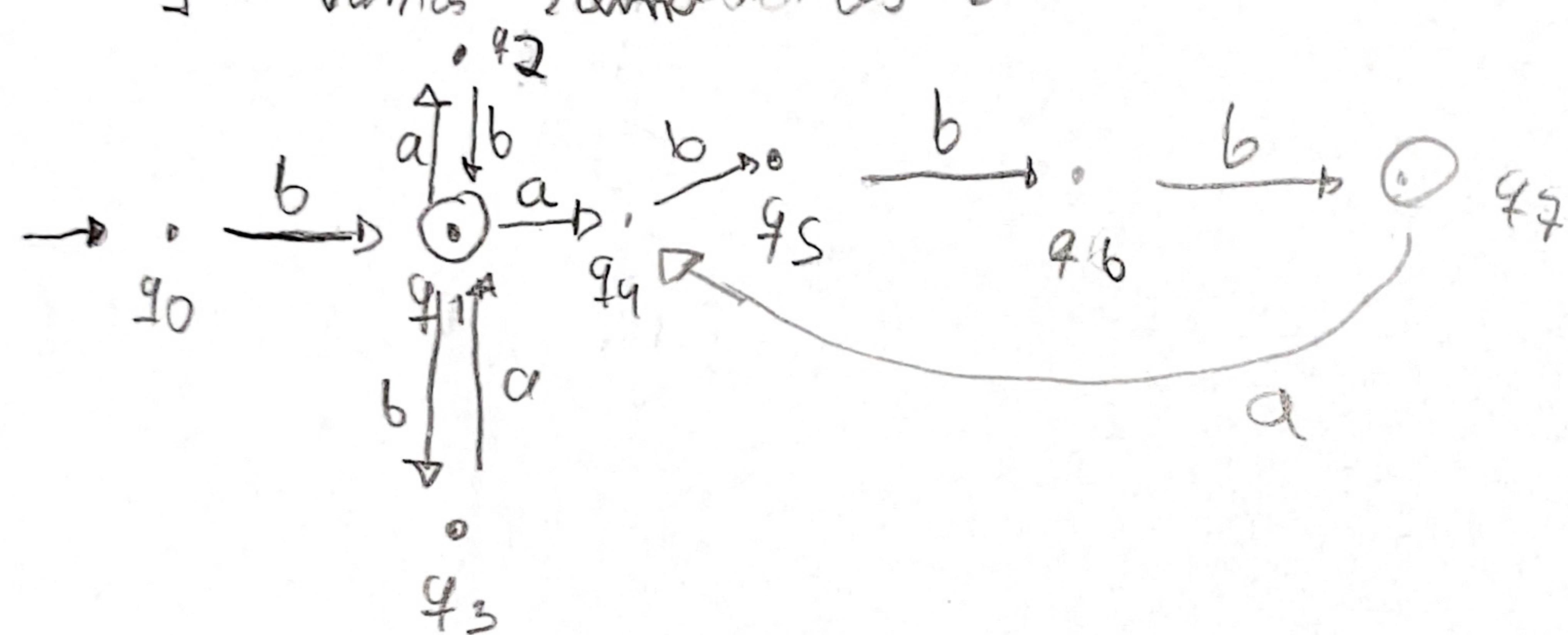
II - Vamos remover q_4



(2-a)



b) I - Vamsi removes as ℓ 's



	a	b	
$\{q_0\}$	\emptyset	$\{q_1\}$	p_0
$\{q_1\}$	$\{q_2, q_4\}$	$\{q_3\}$	p_1
$\{q_2, q_4\}$	\emptyset	$\{q_1, q_5\}$	p_2
$\{q_3\}$	$\{q_1\}$	\emptyset	p_3
$\{q_1, q_5\}$	$\{q_2, q_4\}$	$\{q_3, q_6\}$	p_4
$\{q_3, q_6\}$	$\{q_1\}$	$\{q_7\}$	p_5
$\{q_7\}$	$\{q_4\}$	\emptyset	p_6
$\{q_4\}$	\emptyset	$\{q_5\}$	p_7
$\{q_5\}$	\emptyset	$\{q_6\}$	p_8
$\{q_6\}$	\emptyset	$\{q_7\}$	p_9
\emptyset	\emptyset	\emptyset	\emptyset

Diagram illustrating the states and transitions:

- States: $p_0, p_1, p_2, p_3, p_4, p_5, p_6, p_7, p_8, p_9$
- Transitions:
 - $p_0 \xrightarrow{a} p_1$, $p_0 \xrightarrow{b} p_2$
 - $p_1 \xrightarrow{a} p_2$, $p_1 \xrightarrow{b} p_4$
 - $p_2 \xrightarrow{a} p_3$, $p_2 \xrightarrow{b} p_4$
 - $p_3 \xrightarrow{a} p_4$
 - $p_4 \xrightarrow{a} p_5$, $p_4 \xrightarrow{b} p_6$
 - $p_5 \xrightarrow{a} p_6$
 - $p_6 \xrightarrow{a} p_7$, $p_6 \xrightarrow{b} p_8$
 - $p_7 \xrightarrow{a} p_8$
 - $p_8 \xrightarrow{a} p_9$

Lista 13

8) c) $F = \{P_1, P_4, P_6\}$

$$NF = \{P_0, P_2, P_3, P_5, P_7, P_8, P_9\}$$

F	a	b
P_1	NF	NF
P_4	NF	NF
P_6	NF	NF

A₀

NF	a	b
P_0	NF	F
P_2	NF	F
P_3	F	NF
P_5	F	F
P_7	NF	NF
P_8	NF	NF
P_9	NF	F
\varnothing	NF	NF

A_0	a	b
P_1	A ₁	A ₂
P_4	A ₁	A ₃
P_6	A ₄	A ₄

B₁

A_4	a	b
P_7	A ₄	A ₄
P_8	A ₄	A ₁
\varnothing	A ₄	A ₄

B₄

A_1	a	b
P_0	A ₄	A ₀
P_2	A ₄	A ₀
P_9	A ₄	A ₀

convergim

B_5	a	b
P_7	B ₅	B ₆
\varnothing	B ₅	B ₅

1- Rønsevindle P_3 & P_2

