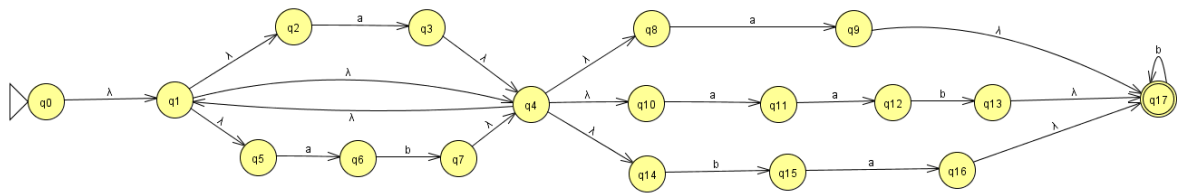


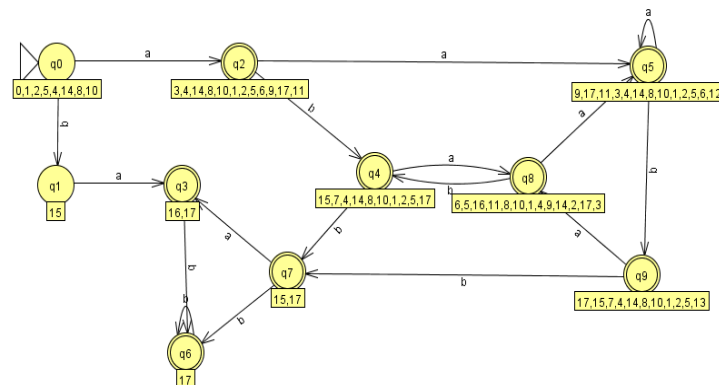
NFA



NFA	a	b	λ
->q0	∅	∅	q1
q1	∅	∅	{q2, q4, q5}
q2	q3	∅	∅
q3	∅	∅	q4
q4	∅	∅	{q1, q8, q10, q14}
q5	q6	∅	∅
q6	∅	q7	∅
q7	∅	∅	q4
q8	q9	∅	∅
q9	∅	∅	q17
q10	q11	∅	∅
q11	q12	∅	∅
q12	∅	q13	∅
q13	∅	∅	q17
q14	∅	q15	∅
q15	q16	∅	∅
q16	∅	∅	q17
*q17	∅	q17	∅

$clausura - \lambda (\{q_0\}) = \{q_0, q_1, q_2, q_4, q_5, q_8, q_{10}, q_{14}\}$
 $clausura - \lambda (\{q_1\}) = \{q_1, q_2, q_4, q_5, q_8, q_{10}, q_{14}\}$
 $clausura - \lambda (\{q_2\}) = \{q_2\}$
 $clausura - \lambda (\{q_3\}) = \{q_1, q_2, q_3, q_4, q_5, q_8, q_{10}, q_{14}\}$
 $clausura - \lambda (\{q_4\}) = \{q_1, q_2, q_4, q_5, q_8, q_{10}, q_{14}\}$
 $clausura - \lambda (\{q_5\}) = \{q_5\}$
 $clausura - \lambda (\{q_6\}) = \{q_6\}$
 $clausura - \lambda (\{q_7\}) = \{q_1, q_2, q_4, q_5, q_7, q_8, q_{10}, q_{14}\}$
 $clausura - \lambda (\{q_8\}) = \{q_8\}$
 $clausura - \lambda (\{q_9\}) = \{q_9, q_{17}\}$
 $clausura - \lambda (\{q_{10}\}) = \{q_{10}\}$
 $clausura - \lambda (\{q_{11}\}) = \{q_{11}\}$
 $clausura - \lambda (\{q_{12}\}) = \{q_{12}\}$
 $clausura - \lambda (\{q_{13}\}) = \{q_{13}, q_{17}\}$
 $clausura - \lambda (\{q_{14}\}) = \{q_{14}\}$
 $clausura - \lambda (\{q_{15}\}) = \{q_{15}\}$
 $clausura - \lambda (\{q_{16}\}) = \{q_{16}, q_{17}\}$
 $clausura - \lambda (\{q_{17}\}) = \{q_{17}\}$

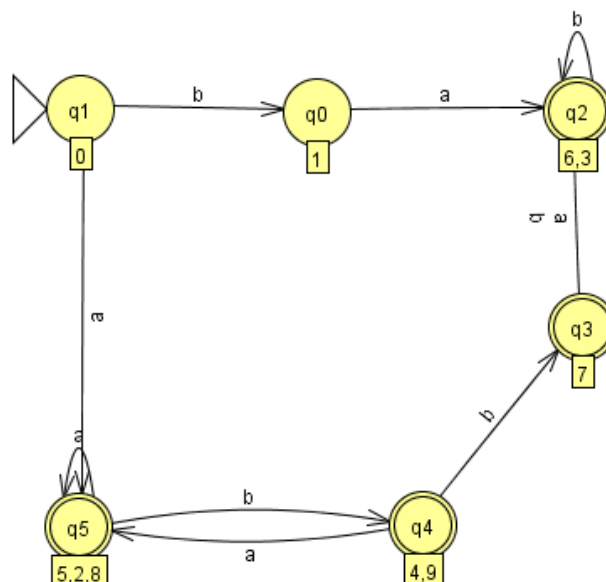
DFA



DFA	a	b
$\rightarrow \{q_0, q_1, q_2, q_4, q_5, q_8, q_{10}, q_{14}\}$	$\{q_1, q_2, q_3, q_4, q_5, q_6, q_8, q_9, q_{10}, q_{11}, q_{14}, q_{17}\}$	$\{q_{15}\}$
$\{q_1, q_2, q_4, q_5, q_8, q_{10}, q_{14}\}$	$\{q_1, q_2, q_3, q_4, q_5, q_6, q_8, q_9, q_{10}, q_{11}, q_{14}, q_{17}\}$	$\{q_{15}\}$
$\{q_2\}$	$\{q_1, q_2, q_3, q_4, q_5, q_8, q_{10}, q_{14}\}$	\emptyset

{q1, q2, q3, q4, q5, q8, q10, q14}	{q1, q2, q3, q4, q5, q6, q9, q8, q10, q11, q14, q17}	{q15}
{q1, q2, q4, q5, q8, q10, q14}	∅	∅
{q5}	{q6}	∅
{q6}	∅	{q1, q2, q4, q5, q7, q8, q10, q14}
{q1, q2, q4, q5, q7, q8, q10, q14}	{q1, q2, q3, q4, q5, q6, q9, q8, q10, q11, q14, q17}	∅
{q8}	{q9, q17}	∅
{q9, q17}	∅	{q17}
{q10}	{q11}	∅
{q11}	{q12}	∅
{q12}	∅	{q13, q17}
{q13, q17}	∅	{q17}
{q14}	∅	{q17}
{q15}	{q16, q17}	∅
{q16, q17}	∅	{q17}
*{q17}	∅	∅

DFA Minimizado:



$$\pi_0 = \{ \mathbf{1}\{q_0, q_1\}, \mathbf{2}\{q_2, q_3, q_4, q_5, q_6, q_7, q_8, q_9\} \}$$

Entrada	q0	q1	q2	q3	q4	q5	q6	q7	q8	q9
a	2	2	2		2	2		2	2	2
b	1		2	2	2	2	2	2	2	2

$$\pi_1 = \{ \mathbf{3}\{q_0\}, \mathbf{4}\{q_1\}, \mathbf{5}\{q_3, q_6\}, \mathbf{6}\{q_2, q_4, q_5, q_7, q_8, q_9\} \}$$

Entrada	q0	q1	q2	q3	q4	q5	q6	q7	q8	q9
a	6	5	6		6	6		5	6	6
b	4		6	5	6	6	5	5	6	6

$$\pi_2 = \{ \mathbf{7}\{q_7\}, \mathbf{8}\{q_2, q_4, q_5, q_8, q_9\} \}$$

Entrada	q0	q1	q2	q3	q4	q5	q6	q7	q8	q9
a	8	5	8		8	8		5	8	8
b	4		8	5	7	8	5	5	8	7

$$\pi_3 = \{ \mathbf{9}\{q_2, q_5, q_8\}, \mathbf{10}\{q_4, q_9\} \}$$

Entrada	q0	q1	q2	q3	q4	q5	q6	q7	q8	q9
a	9	5	9		9	9		5	9	9
b	4		10	5	7	10	5	5	10	7

$$\pi_4 = \{ \{q_0\}, \{q_1\}, \{q_3, q_6\}, \{q_7\}, \{q_2, q_5, q_8\}, \{q_4, q_9\} \}$$