Prova P1

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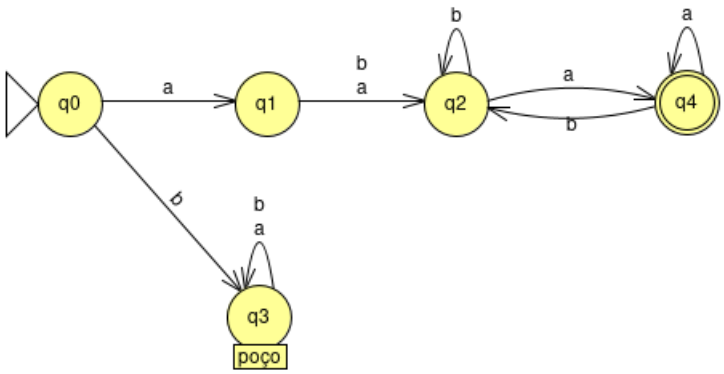
1.

Σ = {a,b}

a)



b)

GL = ({S}, {a,b}, {S→a, S→aS, S→abS, S→baS}, S)

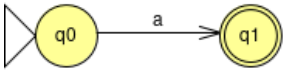
O tipo da gramática obtida é regular

c)

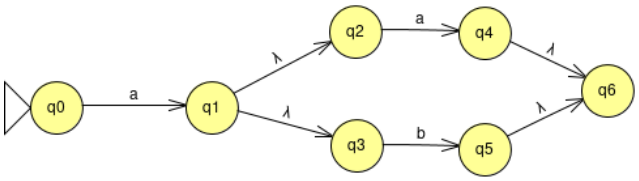
a(a|b)*a

d)

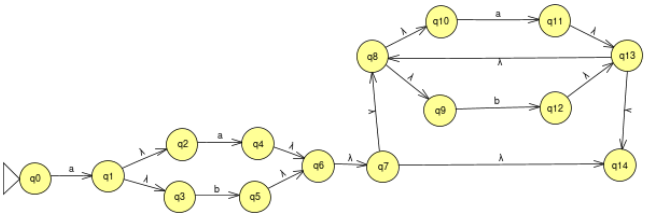
1.



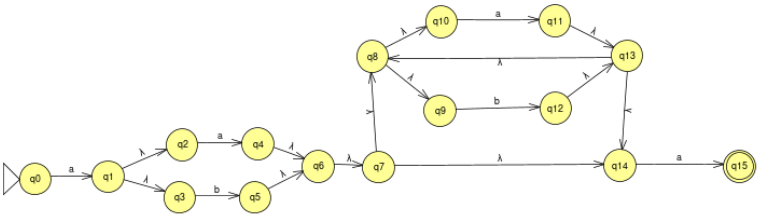
2.



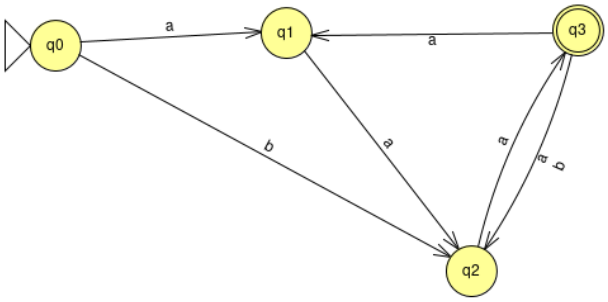
3.


q0
q1
q2
q3
q4
q5
q6
q7
q8
q9
q10
q11
q12
q13
q14
a
b
λ

4.


q0
q1
q2
q3
q4
q5
q6
q7
q8
q9
q10
q11
q12
q13
q14
q15
a
b
λ

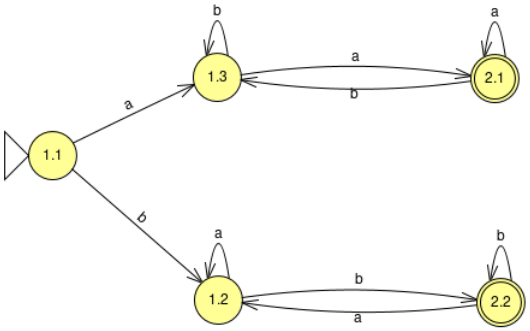
2.



3.

classe = 0	estado qi	[δ (qi, a)] = 0	[δ (qi, b)] = 0
1	q_0	1	1
	q_1	1	2
	q_2	2	1
	q_3	2	1
	q_6	1	2
2	q_4	2	1
	q_5	1	2

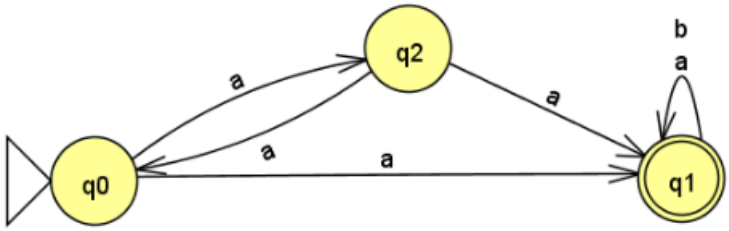
classe = 0	estado qi	[δ (qi, a)] = 1	[δ (qi, b)] = 1
1.1	q_0	1.3	1.2
1.2	q_1	1.2	2.2
	q_6	1.2	2.2
1.3	q_2	2.1	1.3
	q_3	2.1	1.3
2.1	q_4	2.1	1.3
2.2	q_5	1.2	2.2



4.

O numero de subconjuntos obtidos sera $2^3 = 8$.

- {}
- {q0}
- {**q1**} **final**
- {q2}
- {q0, **q1**} **final**
- {q0, q2}
- {**q1**, q2} **final**
- {q0, **q1**, q2} **final**



1.

Olhando para o afnd original: a quais estados consigo chegar usando uma transição com a letra a

δ ({q0}, a) = {q2} $\cup$ {q1}

δ ({q0}, b) = {}

2.

Olhando para o afnd original: a quais estados consigo chegar usando uma transição com a letra a

δ ({q1, q2}, a) = {q1} $\cup$ {q0}

δ ({q1, q2}, b) = {q1} $\cup$ {}

3.

Olhando para o afnd original: a quais estados consigo chegar usando uma transição com a letra a

δ ({q1, q0}, a) = {q2} $\cup$ {q1}

δ ({q1, q0}, b) = {q1}

4.

Olhando para o afnd original: a quais estados consigo chegar usando uma transição com a letra a

δ ({q1} ,a) = {q1}

δ ({q1}, b) = {q1}