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1.  $(a^*|b^*)c$

AFN:

Diagrama

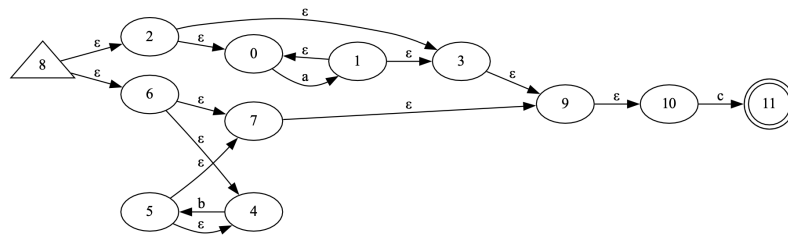


Tabla de transiciones

Estado	a	b	c	$\epsilon$
0	1	-	-	-
1	-	-	-	0,3
2	-	-	-	3,0
3	-	-	-	9
4	-	5	-	-
5	-	-	-	4,7
6	-	-	-	7,4
7	-	-	-	9
8 (inicial)	-	-	-	2,6
9	-	-	-	10
10	-	-	11	-
11	-	-	-	-

AFD

Diagrama

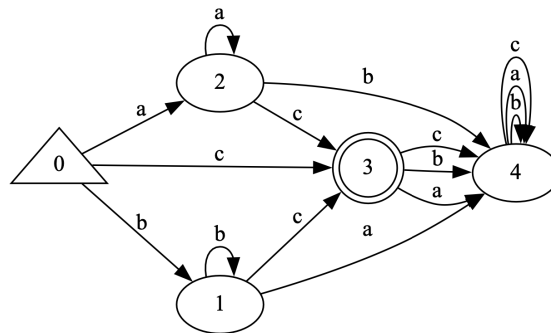


Tabla de transiciones

Estado	a	b	c
0 (inicial)	2	1	3
1	4	1	3
2	2	4	3
3	4	4	4
4	4	4	4

2.  $(b|b)^*abb(a|b)^*$

AFN

Diagrama

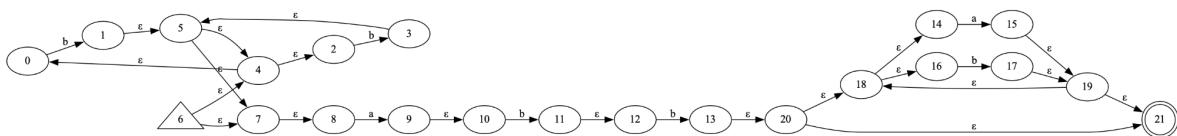


Tabla de transiciones

Estado	a	b	$\epsilon$
0	-	1	-
1	-	-	5
2	-	3	-
3	-	-	5

4	-	-	2,0
5	-	-	4,7
6 (inicial)	-	-	4,7
7	-	-	8
8	9	-	-
9	-	-	10
10	-	11	-
11	-	-	12
12	-	13	-
13	-	-	20
14	15	-	-
15	-	-	19
16	-	17	-
17	-	-	19
18	-	-	14,16
19	-	-	21,18
20	-	-	18,21
21	-	-	-

AFD

Diagrama

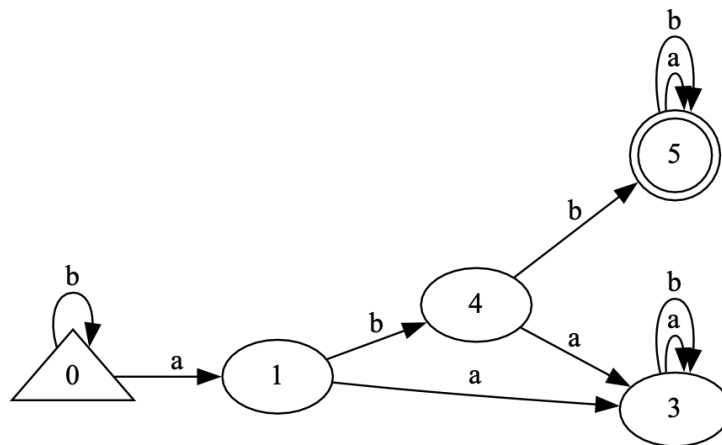
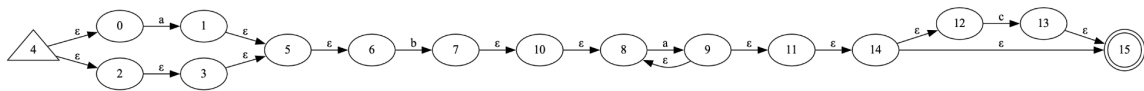


Tabla de transiciones

Estado	a	b
0	1	0
1	3	4
3	3	3
4	3	5
5	5	5

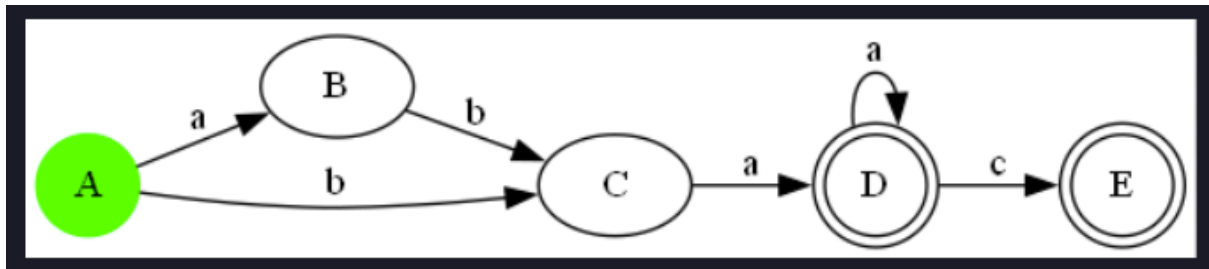
3.  $(a|\epsilon)b(a^+)|c$ ?

AFN



Estado del AFN	Transición con a	Transición con b	Transición con c	Transición con $\epsilon$
4	--	---	---	4, 0, 2
0	1	---	---	0
1	---	---	---	1, 5
2	---	---	---	2, 3
3	---	---	---	3, 5
5	---	---	---	5, 6
6	---	7	---	6
7	---	---	---	7, 10
10	---	---	---	10, 8
8	9	---	---	8
9	---	---	---	8, 9, 11
11	---	---	---	11, 14
14	---	---	---	14, 12, 15
12	---	---	13	12
13	---	---	---	13, 15
15	---	---	---	15

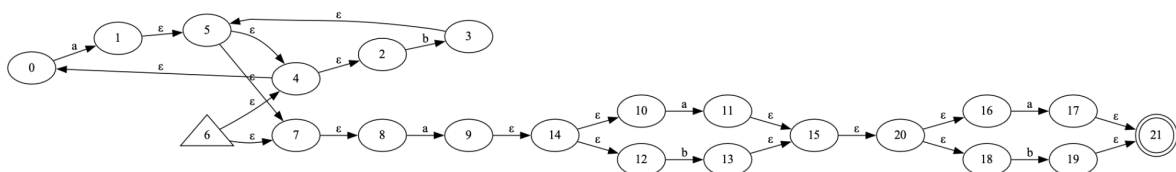
AFD



Estado del AFD	Transición con a	Transición con b	Transición con c
A	B	C	---
B	---	C	---
C	D	---	---
D	D	---	E
E	---	---	---

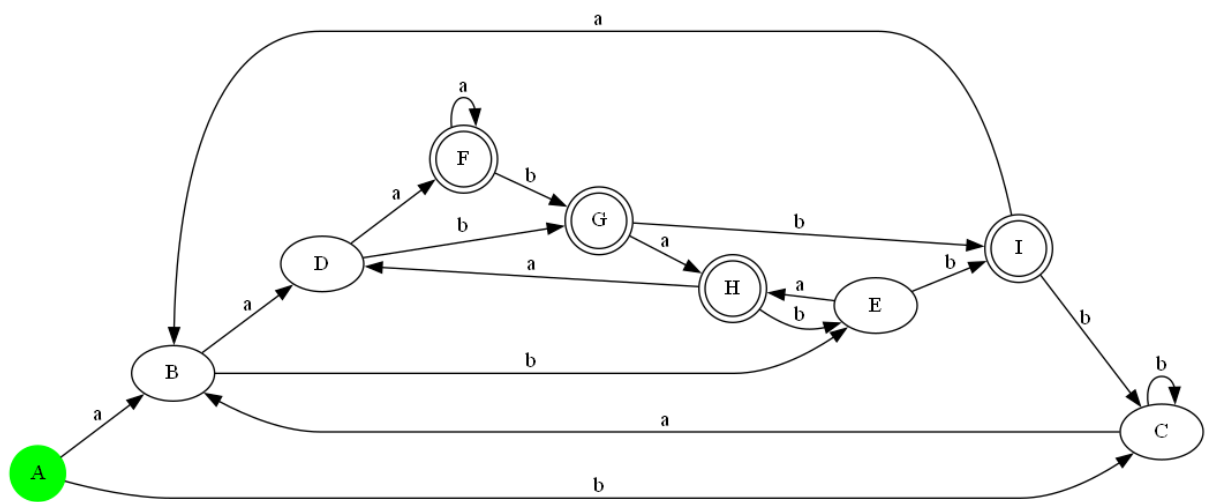
4.  $(a|b)^*a(a|b)(a|b)$

AFN



Estado del AFN	Transición con a	Transición con b	Transición con $\epsilon$
0	1	---	0
1	---	---	1, 5
5	---	---	5, 4, 7
4	---	---	0, 4, 2
2	---	3	2
3	---	---	3, 5
6	---	---	6, 4, 7
7	---	---	7, 8
8	9	---	8
9	---	---	9, 14
14	---	---	14, 10, 12
10	11	---	10
11	---	---	15
12	---	13	12
13	---	---	13, 15
15	---	---	15, 20
20	---	---	20, 16, 18
16	17	---	16
17	---	---	17, 21
18	---	19	18
19	---	---	19, 21
21	---	---	---

AFD



Estado del AFD	Transición con a	Transición con b	
A	B	C	•
B	D	E	•
C	B	C	•
D	F	G	
E	H	I	•
F	F	G	
G	H	I	•
H	D	E	
I	E	C	•