

# EJERCICIOS PREVIOS A LABORATORIO

## ab\*ab\*

1. Formatear con los puntos

i = 0      length = 6      res = a

c1 = a

c2 = b

i = 1      length = 6      res = a .

c1 = b

c2 = \*

res = a . b

i = 2      length = 6      res = a .b\*

c1 = \*

c2 = a

i = 3      length = 6      res = a .b\*.

c1 = a

c2 = b

res = a .b\* .a.

i = 4      length = 6      res = a .b\* .a.

c1 = b

c2 = \*

res = a .b\* .a.b

```
for (i in range 0 to regex.length):  
  c1 = regex.charAt(i)  
  
  if (i + 1 < regex.length()):  
    c2 = regex.charAt(i + 1)  
  
    concat c1 to res  
  
    if (  
      c1 != ( and  
      c2 != ) and  
      allOperators does not contain c2 and  
      binaryOperators does not contain c1  
    ):  
      concat '.' to res  
  end for  
  
  concatenate last char from regex to res  
  
return res
```

i = 5      length = 6      res = a .b\*.a.b

c1 = \*

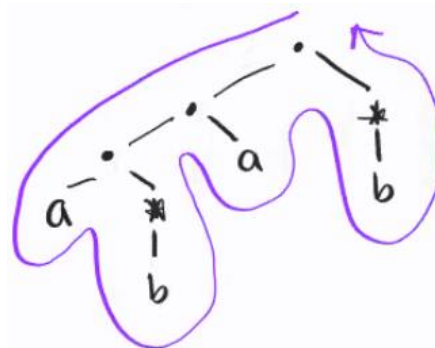
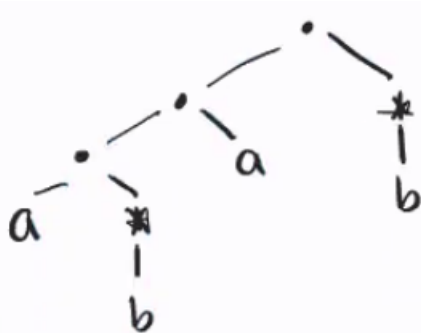
c2 =

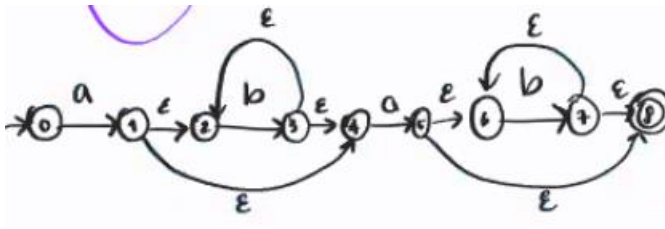
res = a .b\*.a.b\*

Postfix:

	Char	Postfix	Stack	Peek	p.p.	c.p
1	a		a			
2	.	a	.	a	6	3
3	b	a	.b	.	3	6
4	*	ab	.	b	6	4
			.*	.	3	4
5	.	Ab*	.	*	4	3
		Ab*.	.	.	3	3
6	a	Ab*.	.a	.	3	6
7	.	Ab*.a	.	a	6	3
		Ab*.a.	.	.	3	3
8	B	Ab*.a.	.b	.	3	6
9	*	Ab*.a.b	.	b	6	4
		Ab*.a.b	.*	.	3	4
		Ab*.a.b*	.			
		Ab*.a.b*	vacio			

Ab\*.a.b\*

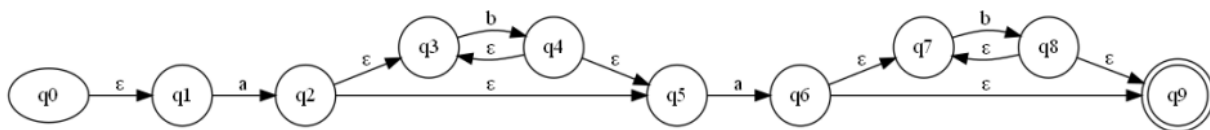
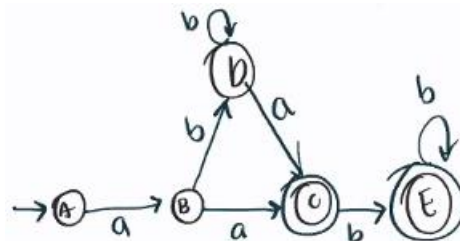




Transición

	a	b	$\epsilon^*$
0	1	-	{0}
1	-	-	{1,2}
2	-	3	{2}
3	-	-	{2,3,4}
4	5	-	{4}
5	-	-	{5,6,8}
6	-	7	{6}
7	-	-	{6,7,8}
8	-	-	{8}

	$a\epsilon^*$	$b\epsilon^*$
{0} = A	{1,2,4} = B	0
{1,2,4} = B	{5,6,8} = C	{2,3,4} = D
{5,6,8} = C	0	{6,7,8} = E
{2,3,4} = D	{5,6,8} = C	{2,3,4} = D
{6,7,8} = E	0	{6,7,8} = E

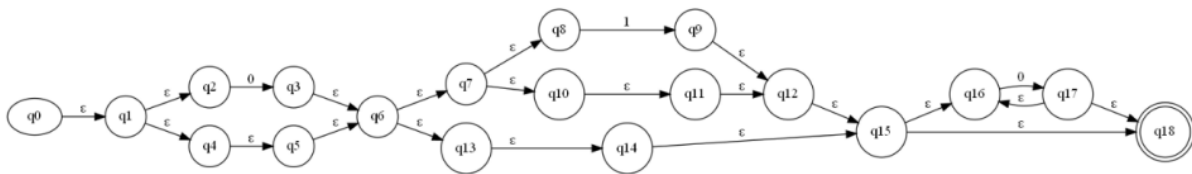


**$0?(1?)?0^*$**

②  $0?(1?)?0^*$

formateo:  $0?(1?)?0^* \rightarrow (0|\epsilon) \cdot (((1|\epsilon))|\epsilon) \cdot 0^*$

Postfix:  $(0|\epsilon) \cdot (((1|\epsilon))|\epsilon) \cdot 0^* \rightarrow 0\epsilon|1\epsilon|\epsilon| \cdot 0^* \cdot$

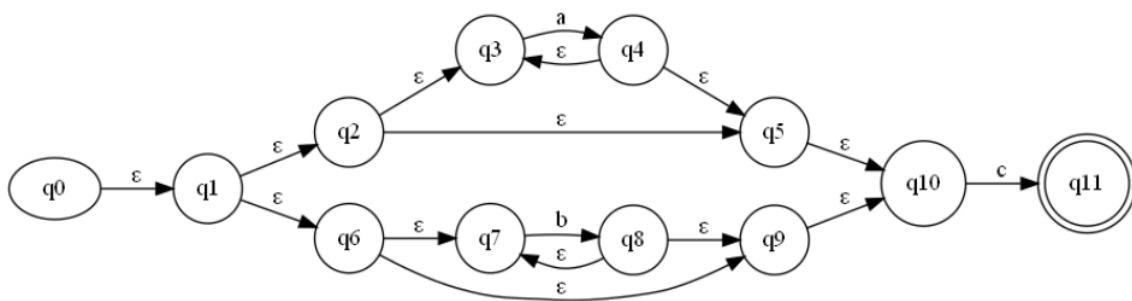


**$(a^*|b^*)c$**

③  $(a^*|b^*)c$

formateo:  $(a^*|b^*)c \rightarrow (a^*|b^*) \cdot c$

Postfix:  $(a^*|b^*) \cdot c \rightarrow a^*b^*|c \cdot$

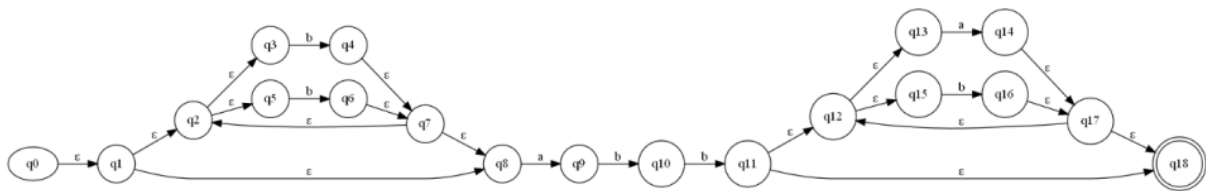


**$(b|b)^*abb(a|b)^*$**

④  $(b|b)^*abb(a|b)^*$

formato:  $(b|b)^*abb(a|b)^* \rightarrow (b|b)^* \circ a \circ b \circ b \circ (a|b)^*$

postfix:  $(b|b)^* \circ a \circ b \circ b \circ (a|b)^* \rightarrow bbl \circ a \circ b \circ b \circ ab| \circ$

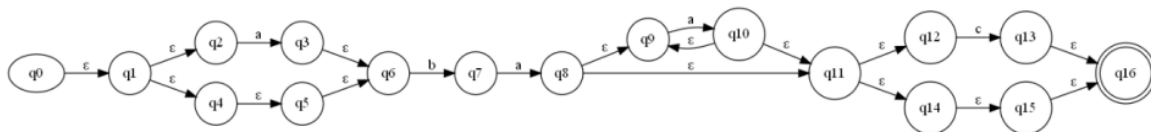


**$(a|\epsilon)b(a^+)c^?$**

⑤  $(a|\epsilon)b(a^+)c^?$

formato:  $(a|\epsilon)b(a^+)c^? \rightarrow (a|\epsilon) \circ b \circ (a \circ a^*) \circ (c|\epsilon)$

postfix:  $(a|\epsilon) \circ b \circ (a \circ a^*) \circ (c|\epsilon) \rightarrow a\epsilon|b \circ aa^* \circ c\epsilon| \circ$



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

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

formato:  $(a|b)^*a(a|b)(a|b) \rightarrow (a|b)^* \circ a \circ (a|b) \circ (a|b)$

postfix:  $(a|b)^* \circ a \circ (a|b) \circ (a|b) \rightarrow ab| \circ a \circ ab| \circ ab| \circ$

