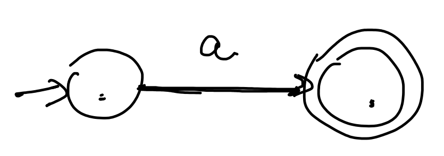
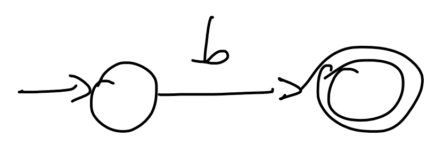
Sem7 - B4

Thursday, 2 April 2020 09:12

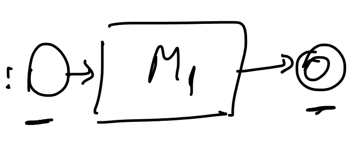
a



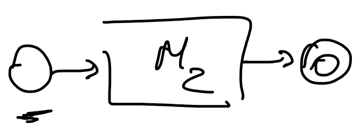


ab

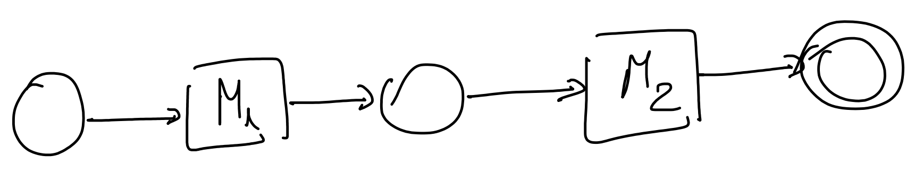
e_1 :



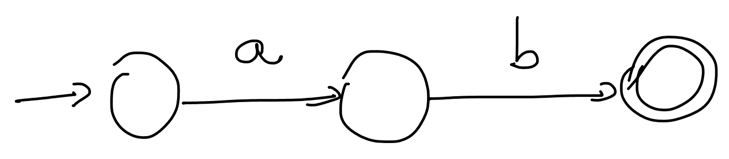
e_2 :



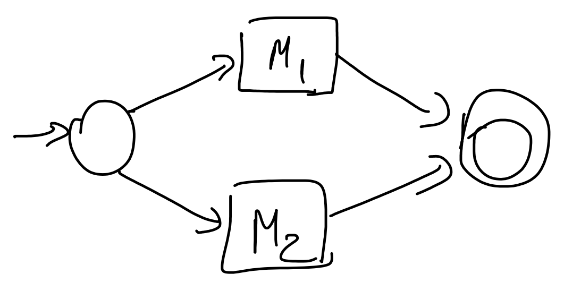
$e_1 . e_2$



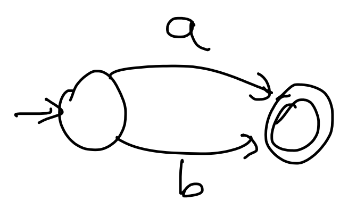
ab



$e_1 + e_2$

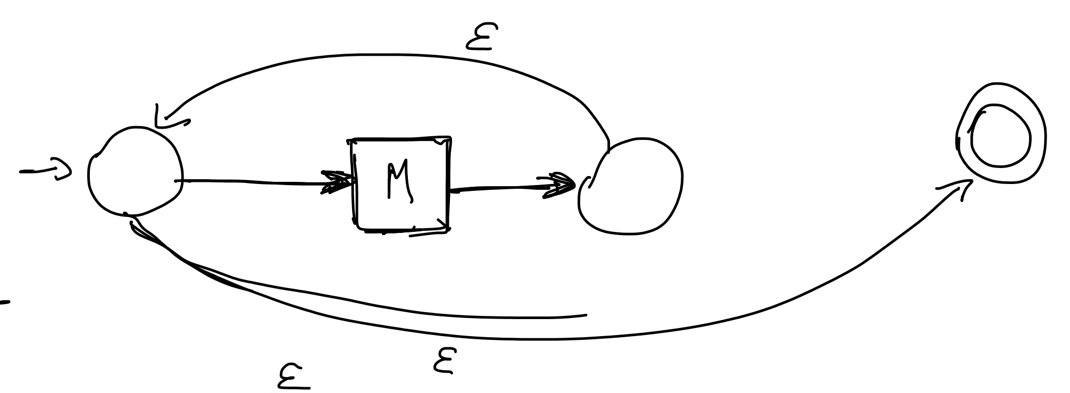


a+b



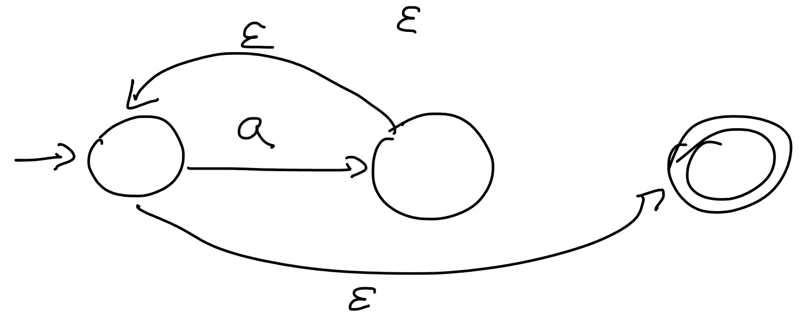
e^*

$(e\varepsilon)^*\varepsilon$



a^*

$(a\varepsilon)^*\varepsilon$



$\delta_a(e)$ - expresia care rămâne de citit din e după ce am citit a

$\delta_a(ab) = b$

$\varepsilon \in L(e_1)$

$\delta_a(e_1.e_2) = \delta_a(e_1).e_2 + \overbrace{\varepsilon?(e_1)}\delta_a(e_2)$

a^*b

$\delta_a(ab) = \delta_a(a)b + \cancel{\text{empty}.\delta_a(b)}$

$$\delta_a(b) = \begin{cases} \varepsilon, & a=b \\ \text{empty}, & a \neq b \end{cases}$$

$e = b(a+c)^*b(aa+cc)^*$ ← 0

$\delta_a(e) = \underbrace{\underbrace{\delta_a(b)}_{\text{empty}}(a+c)^*b(aa+cc)^*}_{\text{empty}}$

$\delta_b(e) = \underbrace{\delta_b(b)}_{\varepsilon}(a+c)^*b(aa+cc)^*$

$= (a+c)^*b(aa+cc)^*$ ← 1

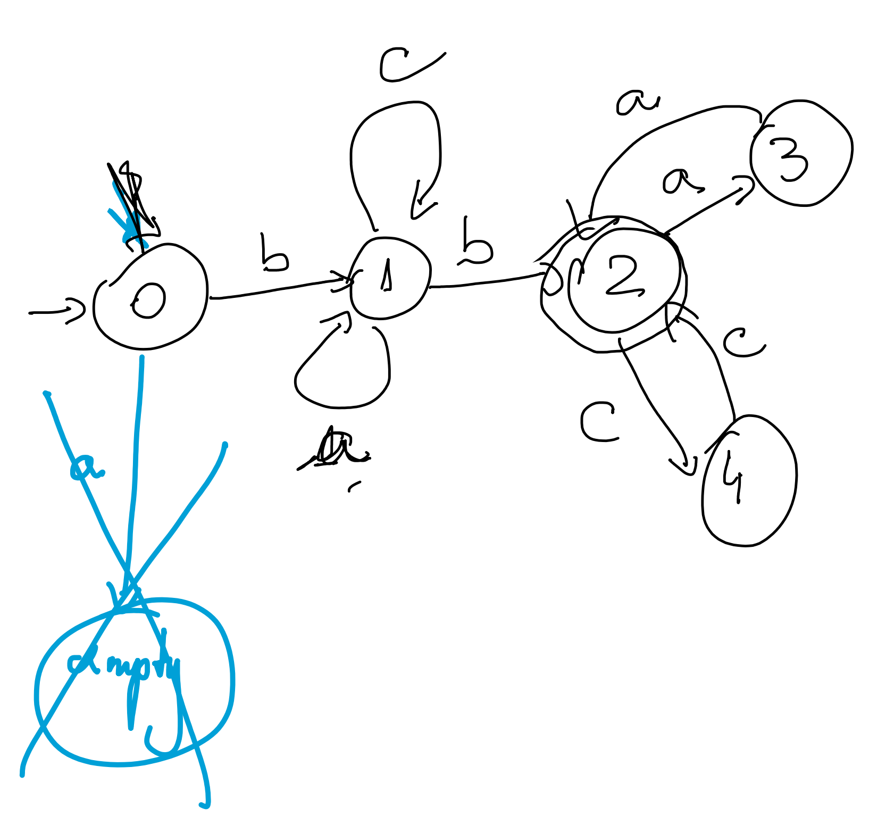
$\delta_c(e) = \text{empty}$

$\delta_a((a+c)^*b(aa+cc)^*) = (a+c)^*b(aa+cc)^*$

$(a+c)^* \to (a+\cancel{c})(a+c)^*$

$\delta_b((a+c)^*b(aa+cc)^*) = \underbrace{\underbrace{\delta_b((a+c)^*)}_{\text{empty}}b(aa+cc)^*}_{\text{empty}} + \delta_b(b(aa+cc)^*)$

$= (aa+cc)^*$ ← 2 ✓



$\delta_a((aa+cc)^*) = a(aa+cc)^*$ ← 3

$\delta_c((aa+cc)^*) = c(aa+cc)^*$ ← 4

finală dacă $\varepsilon \in L(e)$

5b) pt. expresia $b(a+c)^*b(aa+cc)^*$

t=	a	b	a	c	c	b	b	a	a	b	a	a	...
	0	1	2	3	4	5	6	7	8	9	10	11	

poz. start (i)	poz. curentă (j)	stare (s)	decizia
0	0	0	nepotrivire, s=0, i++ (j=i)
1	1	0	potrivire, s=next(0,b)=1, j++ t[j]
	2	1	potrivire
	3	1	potrivire
	4	1	potrivire
	5	1	potrivire
	6	2	

final → return 1