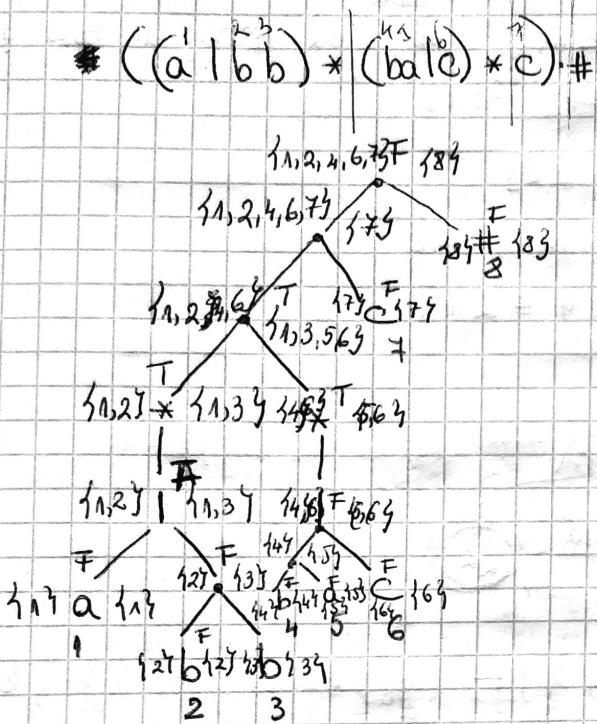


Seminari 2

Ex 1: $(a \mid bb)^* (ba \mid c)^* c$: transf exp reg in AFD



ARBORELE ASOCIAȚI

(firstpos)

- acolada din stanga este mt. poz.
de pe care poate incepe (imbojul
(Cetnros) dreapta
 - in stanga poz. pe care se termina
(nullable)
 - T/F dacă include { };

followpos

$$1, 2, 4, 6, 7$$

2 | 3

3 1, 2, 4, 6, 7

4 5

5 | 4, 6, 7

6 4, 6, 7

7 8

8

→ [state initialé] $\xrightarrow{a, b} [1, 2, 4, 6, 7]$

$b \xrightarrow{b} [3, 5]$

$[4, 6, 7] \xrightarrow{b, c} [5]$

Ex 2 : Să se scrie un translator finit care :

a) translatează $L_1 = \{ a^m b^{2m} \mid m \geq 0 \}$ în

$$L_2 = \{ a^n b a^n \mid n \geq 0 \}$$

b) translatează siruri $w \in \{0,1\}^*$ să călăruțească în baza 4

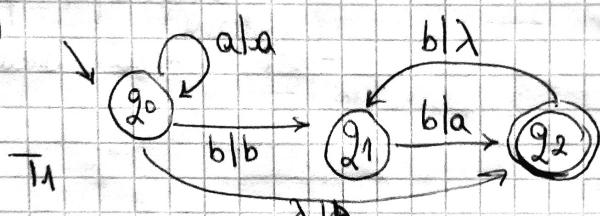
$$110110111 \rightarrow 12313$$

$$00101001 \rightarrow 221$$

c) translatează fiecare cuvânt $a^n, m \geq 0$

în $\{ a^p b^q \mid p+q \leq 2m \}$

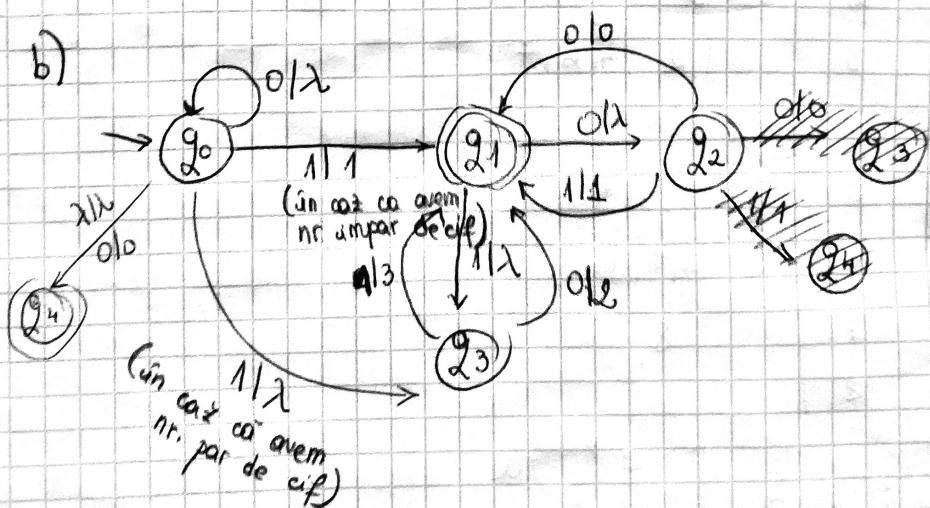
a)



exemplu : $(q_0, abb, \lambda) \xrightarrow{} (q_0, bb, a) \xrightarrow{} (q_1, b, ab) \xrightarrow{} (q_2, \lambda, aba)$

$$\overline{L}(T_1) = \{ a^m b^{2m}, a^m b a^m \}, m, m \geq 0$$

b)



// eliminăm doar 0 din pată

- dacă avem nr. impar de cif cînd primul și, trecem în q1

și după ceamăparem $(0,0), (0,1), (1,0), (1,1)$

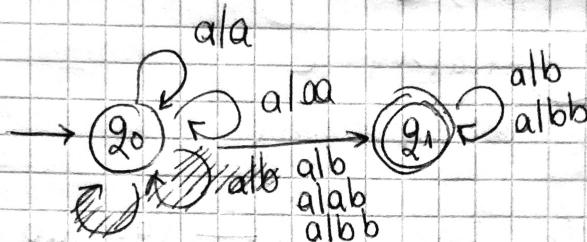
Ex 3

Ex 3

- dacă avem nr. par de cif, direct cu primul și cu g_3
ca parte a primului perechi.

c) $a \rightarrow \{a, b, aa, ab, bb\}$

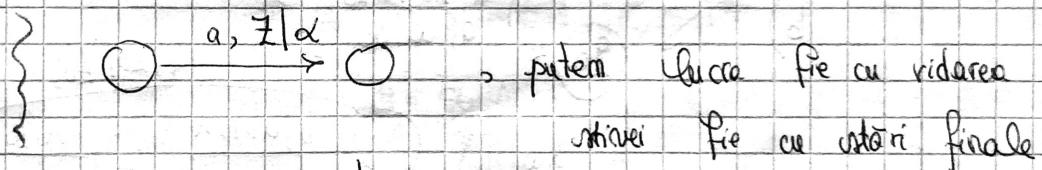
$$a^2 \rightarrow \{a^2, ab, b^2, a^3, a^2b, ab^2, b^3, \dots, b^4\}$$



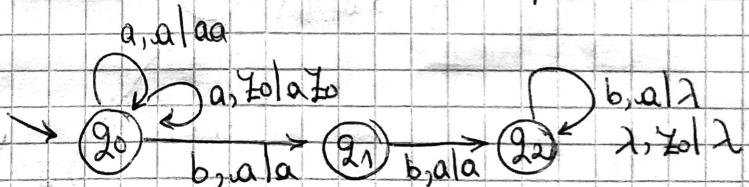
Ex3: Să scrie un automat finit care recunoaște:

a) $L_1 = \{w \in \{a, b\}^* \mid |w|_a = |w|_b\}$

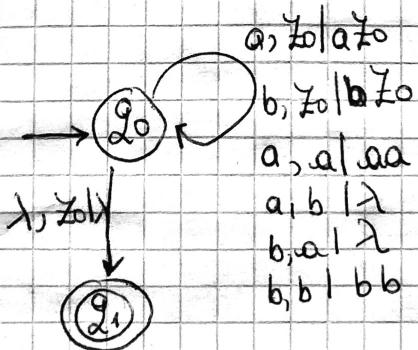
b) $L_2 = \{a^i b^{j+2} \mid i \geq j\}$



b) L_2



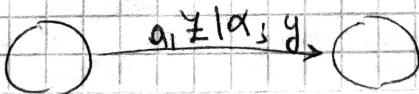
a) L_1

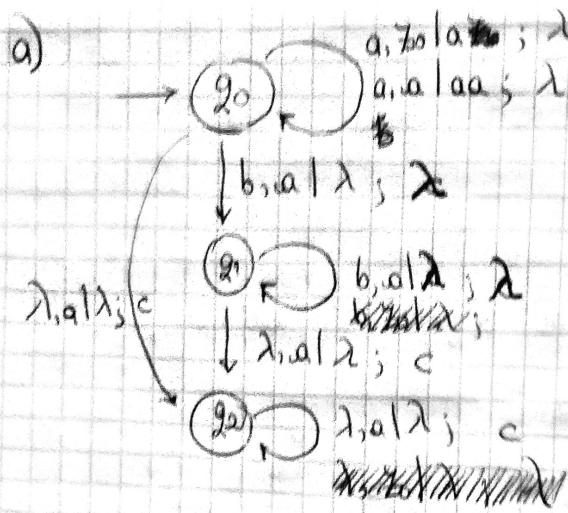


Ex4: Să scrie un translator pentru a cărui traducere este:

a) $M_1 = \{(a^i b^j), c^{i-j} \mid i \geq j \geq 0\}$

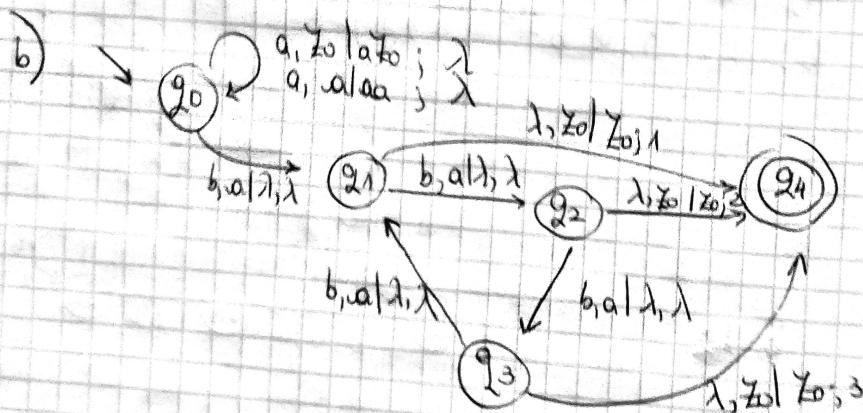
b) $M_2 = \{(a^n b^m, x) \mid n \geq 0, m \geq 0, n \equiv m \pmod{3}\}$





$$(q_0, aaab, z_0, \lambda) \vdash (q_0, aab, a, \lambda) \vdash (q_0, ab, aa, \lambda) \vdash$$

$$(q_0, b, aaa, \lambda) \vdash (q_1, \lambda, aa, \lambda) \vdash (q_2, \lambda, a, c)$$

$$\vdash (q_2, \lambda, \lambda, cc)$$


Th Fa

ANAL

Sintaxa

indep role context

Def:

Derivare

Derivare

Limbajul
L(G) =

Derivare

Derivare

Arborele

A