

José Alex de Oliveira Bergamo

LISTA_1-EXERCÍCIO-1-LETRA-A

$$\{ab,c\}^* = \{\epsilon, ab, c, abab, cc, ababab, ccc, abcab, \dots\}$$

LISTA_1 - EXERCÍCIO_1 - LETRA_b

$$\{a, b, c\}^+ = \{a, b, c, abc, aa, bb, cc, ab, ac, bc, ba, ca, cb, \dots\}$$

LISTA - 1 - EXERCÍCIO - 1 - LETRA - c

$$\{abc\}^* = \{\epsilon, abc, abcabc, abcabcabc, \dots\}$$

LISTA_1 - EXERCÍCIO_2 - LETRA a

$$\{a, b\} \cup \{c, d\} = \{a, b, c, d\}$$

LISTA_1_EXERCÍCIO_2 - LETRA_b

$$\{100, 010, 110\} \cup \{00, 01, 11\} = \{100, 010, 110, 00, 01, 11\}$$

LISTA_1-EXERCÍCIO_2-LETRA_S

$$\{101, 110\} \cdot \{00, 11\} = \{10100, 10111, 11000, 11011\}$$

LISTA - 1 - EXERCÍCIO - 2 - LETRA - d

$$\{Anabel, Emanuela, Gabriela, Isabela, Raquel\} \cdot \{\text{ela}\} = \{Anabel, Emanuela, Gabriela, Isabela,\\ Raquel\}$$

LISTA_1-EXERCÍCIO_3-LETRA_a

$$\Sigma^2 = \{rr, dd, sr, rd, rs, ds, sr, ss, sd\}$$

LISTA - 1 - EXERCÍCIO - 3 - LETRA - b

USTA-1-EXERCÍCIO-3-LETRA-C

$$\Sigma^2 \cup \Sigma^2 = \{pp, dd, nn, pd, pn, dp, dn, pp, nn, pd\}$$

LISTA -1 - EXERCÍCIO -3 - LÉTRA -d

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LISTA-1-EXERCÍCIO-3-LETRA-E

$$\sum_{i=1}^n \epsilon_i = \epsilon_1 + \epsilon_2 + \dots + \epsilon_n$$

$$\angle_1 = \{H_2K_2, K_2H_2, H_2H_2, K_2K_2\}$$

LISTA - 1 - EXERCÍCIO - 4: LETRA - b

$$\sum_1^2 V \sum_2^2 = \{He_6, FeH_2, H_2H_2, Fe_6, SO_4SO_4, O_2O_2, Cl_2Cl_2, SO_4O_2, SO_4Cl_2, O_3S_4, O_3Cl_2, Cl_2SO_4, Cl_2O_2\}$$

LISTA - 1 - EXERCÍCIO - 4 - LETRA - C

$$\sum_1^1 \cdot \sum_2^1 = \{ \text{H}_2\text{SO}_4, \text{H}_2\text{O}_2, \text{H}_2\text{Cl}_2, \text{FeSO}_4, \text{FeO}_2, \text{FeCl}_2 \}$$

José Alenc de O. Barreiro

LISTA_2 - EXERCÍCIO_1 - LETRA - 2
 $((abc)^+ (abc)^*)^*$

LISTA_2 - EXERCÍCIO_1 - LETRA - b
 $(ab)^* b^* | c^* | (aba)^* | (aca)^* |$

LISTA_2 - EXERCÍCIO_1 - LETRA - c
100^t

LISTA_2 - EXERCÍCIO_1 - LETRA - d
 $((011)1(011))^*$

LISTA_2 - EXERCÍCIO_2 - LETRA - 2

Número binário de 0000 até 1111, menor o número 0110.

LISTA_2 - EXERCÍCIO_2 - LETRA - b

Um caractere "a" ou sempre incremento de saida em 5 caracteres ob "a"

LISTA_2 - EXERCÍCIO_3 - LETRA - 2
IF = "if"

LISTA_2 - EXERCÍCIO_3 - LETRA - b

ID = [a-z] [a-zA-Z]*

LISTA_2 - EXERCÍCIO_3 - LETRA - c

NUM = [0-9] *

LISTA_2 - EXERCÍCIO_3 - LETRA - d

REAL = [0-9] + ". "[0-9] *) | (". "[0-9] +)

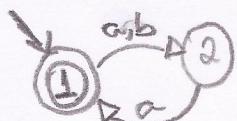
LISTA_2 - EXERCÍCIO_3 - LETRA - e

WHITE SPACE = (" - " [a-zA-Z]* \n) | (" \n")

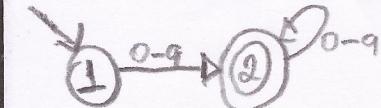
LISTA_2 - EXERCÍCIO_3 - LETRA - F

ERROR = •

LISTA_2 - EXERCÍCIO_4 - LETRA - 2

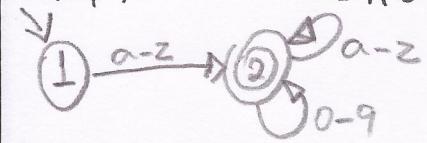


LISTA_2 - EXERCÍCIO_4 - LETRA - b

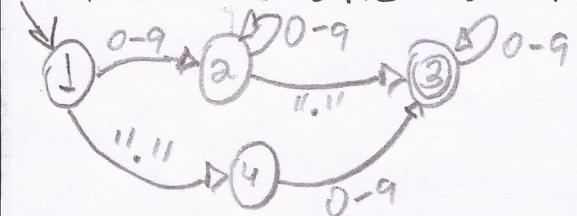


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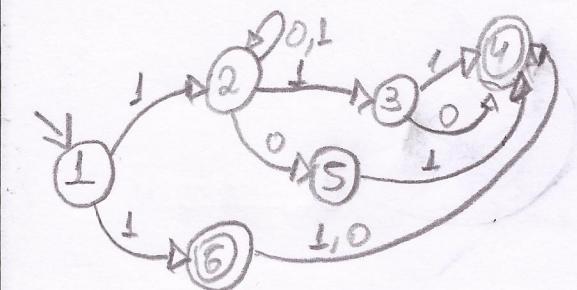
LISTA - 2 - EXERCÍCIO - 4 - LETRA - C



LISTA - 2 - EXERCÍCIO - 4 - LETRA - D



LISTA - 2 - EXERCÍCIO - 4 - LETRA - E



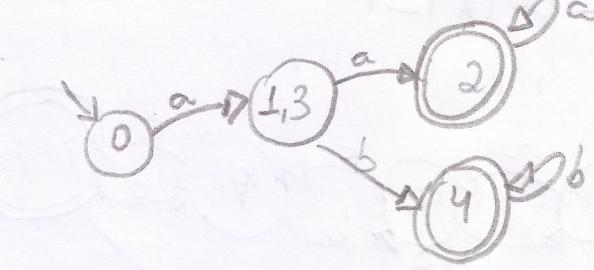
LISTA - 2 - EXERCÍCIO - 5

I, II e III estão corretas \rightarrow Alternativa D

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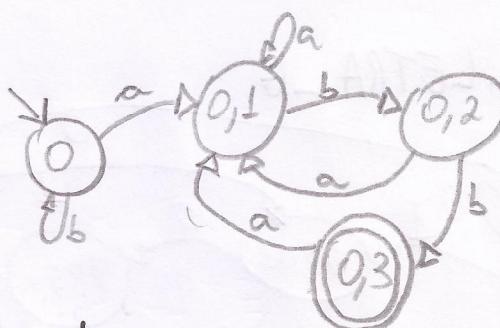
LISTA-3-EXERCÍCIO-1-LÉTRA-a

	a	b
0	1,3	Ø
1,3	2	4
2	2	Ø
4	Ø	4



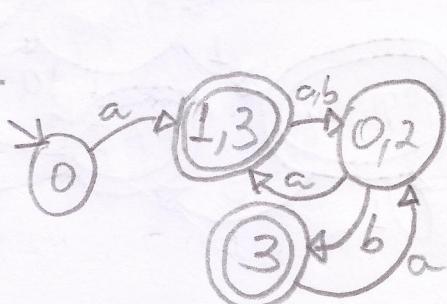
LISTA-3-EXERCÍCIO-1-LÉTRA-b

	a	b
0	0,1	Ø
0,1	0,1	0,2
0,2	0,1	0,3
0,3	0,1	Ø



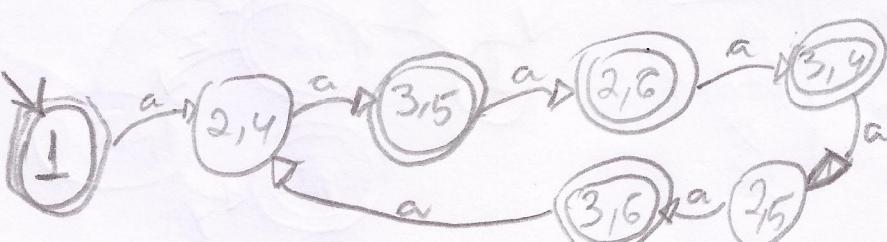
LISTA-3-EXERCÍCIO-1-LÉTRA-c

	a	b
0	1,3	Ø
1,3	0,2	0,2
0,2	1,3	3
3	0,2	Ø



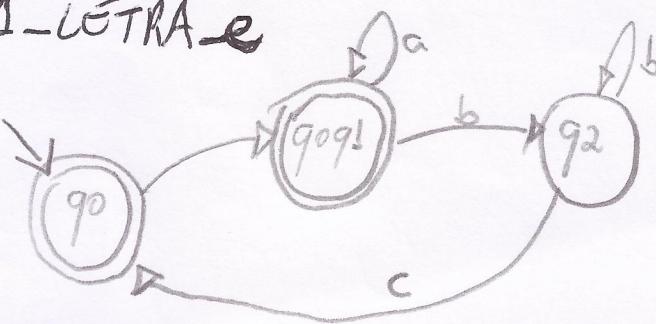
LISTA-3-EXERCÍCIO-1-LÉTRA-d

	a
1	2,4
2,4	3,5
3,5	2,6
2,5	3,4
3,4	2,5
2,5	3,6
3,6	2,4



LISTA-3-EXERCÍCIO-1-LÉTRA-e

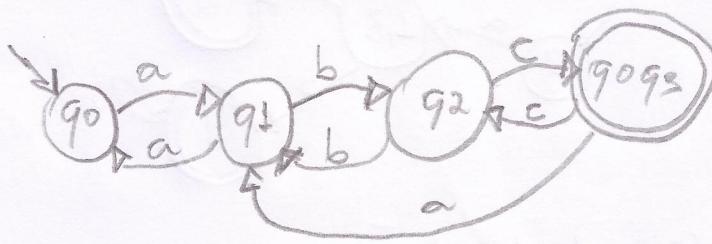
	a	b	c
90	9091	Ø	Ø
9091	9091	92	Ø
92	Ø	92	90



Jão Alex de Almeida Bergamo

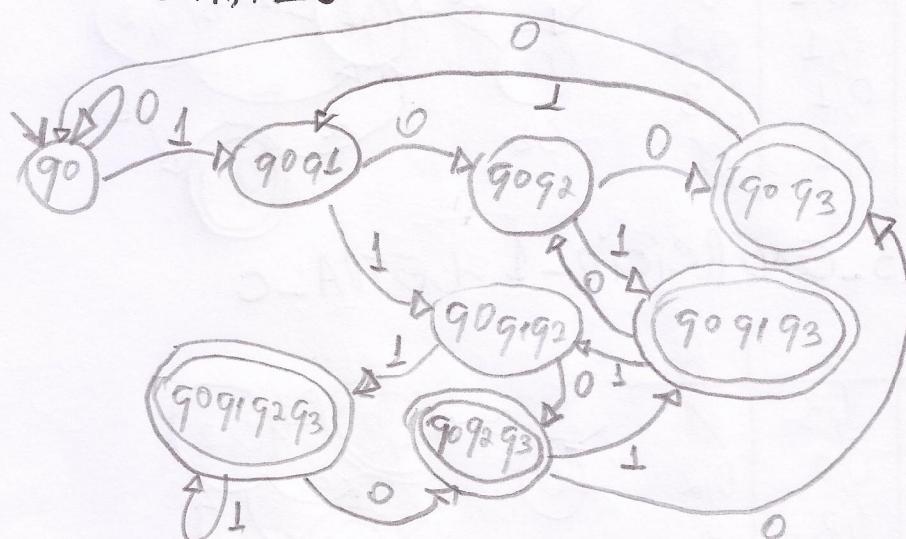
LISTA_3-EXERCÍCIO_1-LETRA_F

	a	b	c
q0	q1	Ø	Ø
q1	q0	q2	Ø
q2	Ø	q1	q0,q3
q0,q3	q1	Ø	q2



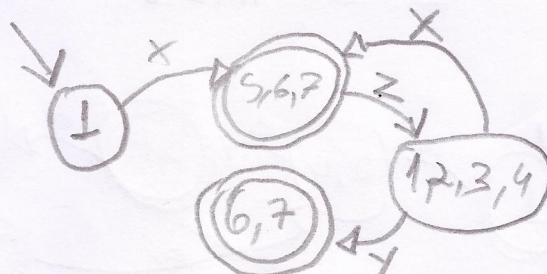
LISTA_3-EXERCÍCIO_1-LETRA_G

	0	1
q0	q0	q0,q1
q0,q1	q0,q2	q0,q1,q2
q0,q1,q2	q0,q2,q3	q0,q1,q2,q3
q0,q2	q0,q3	q0,q1,q3
q0,q2,q3	q0,q3	q0,q1,q3
q0,q1,q3	q0,q2	q0,q1,q2
q0,q3	q0	q0,q1
q0,q1,q2,q3	q0,q2,q3	q0,q1,q2,q3



LISTA_3-EXERCÍCIO_2-LETRA_A

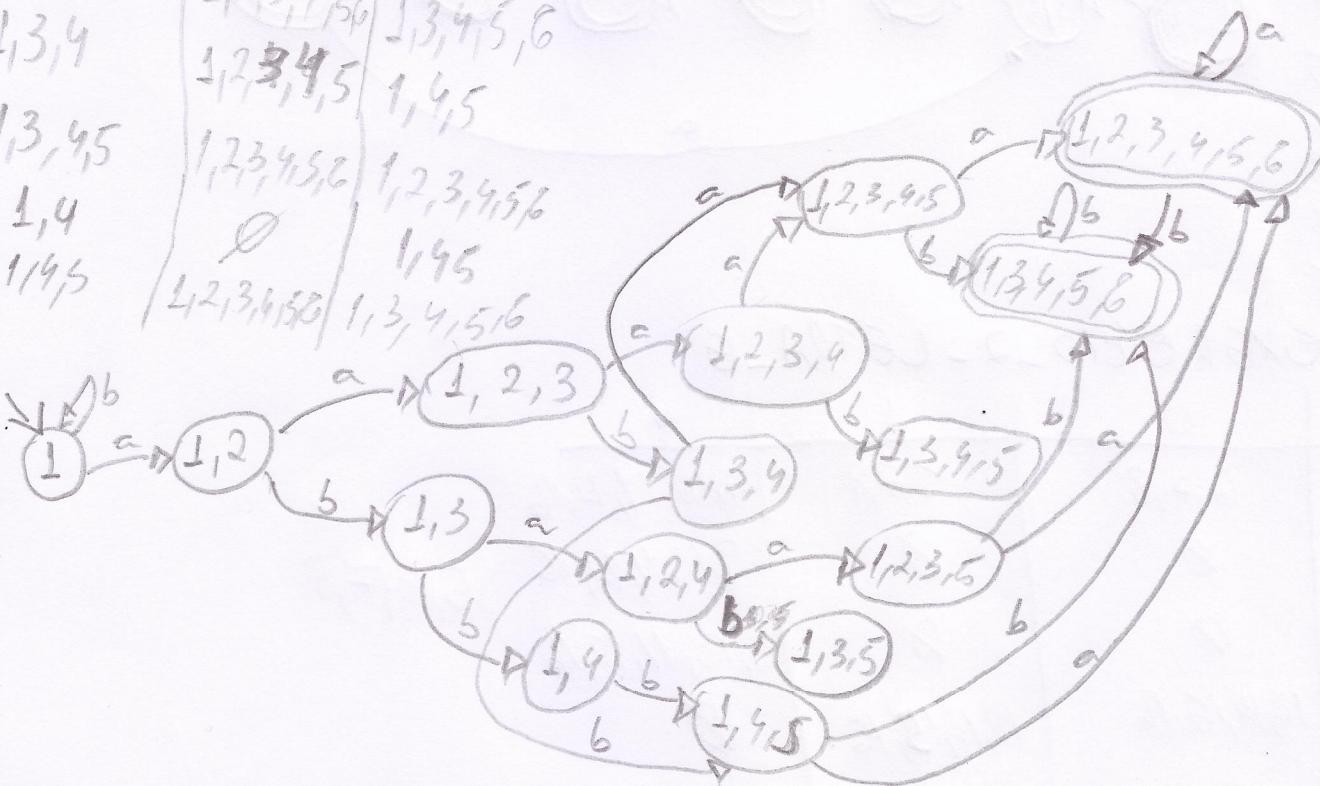
	x	y	z
1	S,6,7	Ø	Ø
5,6,7	Ø	Ø	1,2,3,4
1,2,3,4	S,6,7	6,7	Ø
6,7	Ø	Ø	Ø



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LISTA-3 - EXERCÍCIO-2 - LÉTRA-b

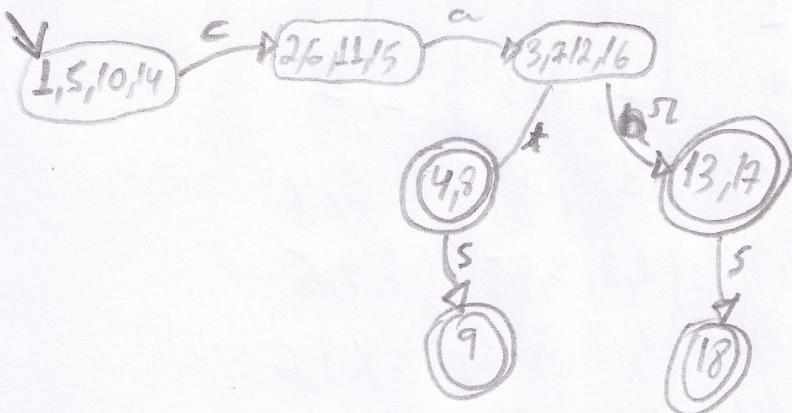
	a	b
1	1, 2	1
1, 2	1, 2, 3	1, 3
1, 2, 3	1, 2, 3, 4	1, 3, 4
1, 2, 3, 4	1, 2, 3, 4, 5	1, 3, 4, 5
1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6	1, 3, 4, 5, 6
1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6	1, 3, 4, 5, 6
1, 3	1, 2, 4	1, 4
1, 2, 4	1, 2, 3, 5	1, 3, 5
1, 2, 3, 5	1, 2, 3, 4, 5, 6	1, 3, 4, 5, 6
1, 3, 4	1, 2, 3, 4, 5	1, 4, 5
1, 3, 4, 5	1, 2, 3, 4, 5, 6	1, 3, 4, 5, 6
1, 4	0	1, 4, 5
1, 4, 5	1, 2, 3, 4, 5, 6	1, 3, 4, 5, 6



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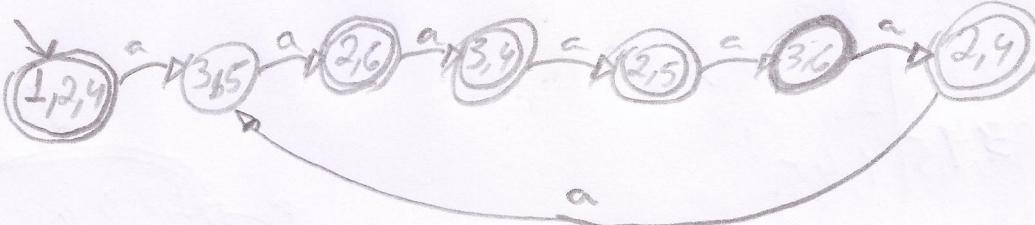
LISTA - 3 - EXERCÍCIO - 2 - LETRA - C

	C	a	t	s	R
15,10,14	2,6,11,15	0	0	0	0
26,11,15	0	3,7,12,16	0	0	0
3,7,12,16	0	0	4,8	0	0
4,8	0	0	0	9	0
13,17	0	0	0	18	0
9	0	0	0	0	0
18	0	0	0	0	0



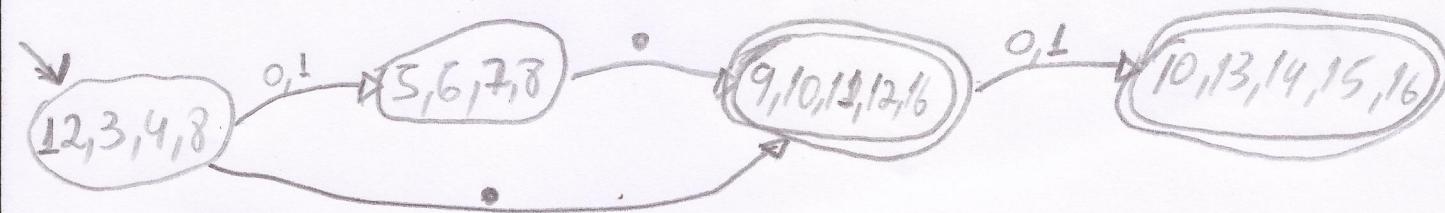
LISTA - 3 - EXERCÍCIO - 2 - LETRA - D

	a
1,2,4	3,5
3,5	2,6
2,6	3,4
3,4	2,5
2,5	3,6
3,6	2,4
2,4	3,5



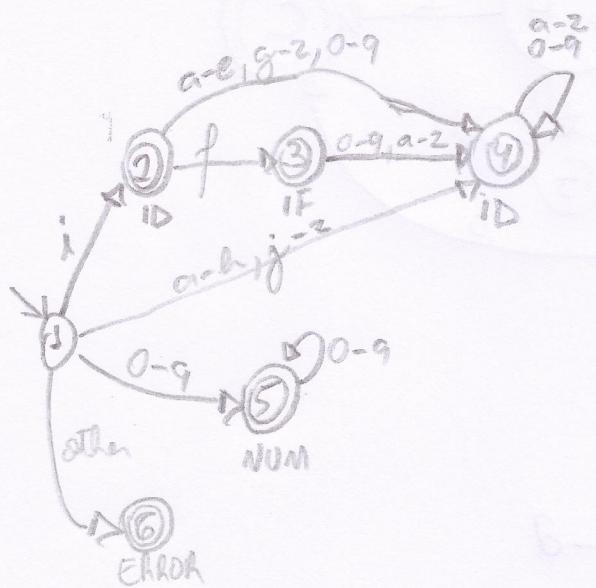
LISTA - 3 - EXERCÍCIO - 2 - LETRA - E

	0	1	•
1,2,3,4,8	6,7,8	5,7,8	9,10,11,12,16
6,7,8	0	0	9,10,11,12,16
5,7,8	0	0	9,10,11,12,16
9,10,11,12,16	10,14,15,16	10,13,15,16	0
10,14,15,16	0	0	0
10,13,15,16	0	0	10,13,14,15,16

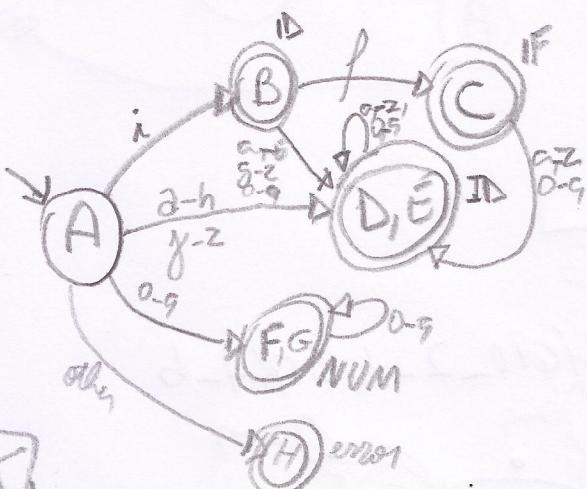
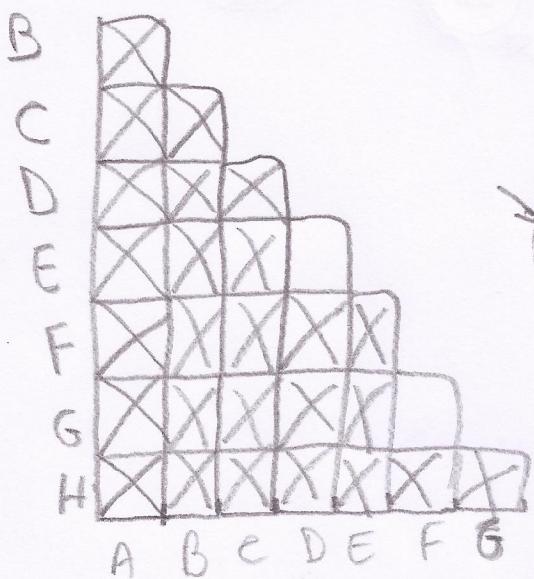


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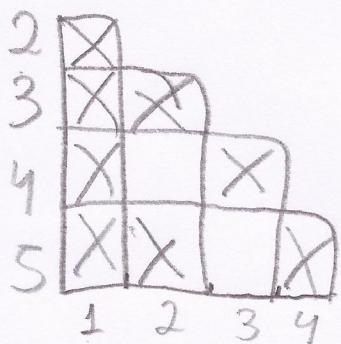
LISTA_3_Exercício_3



LISTA_4_Exercício_1-LETRA_a

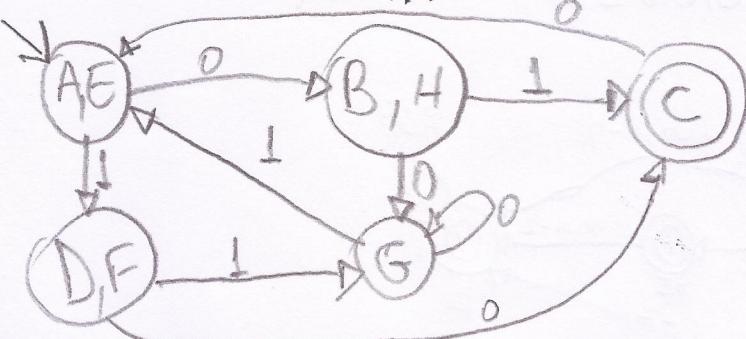
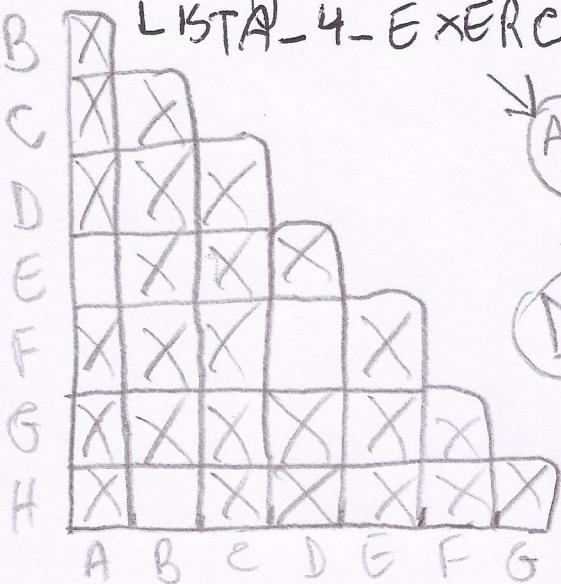


LISTA_4_Exercício_1-LETRA_b

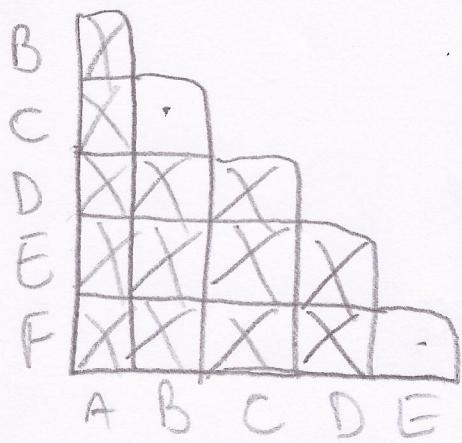


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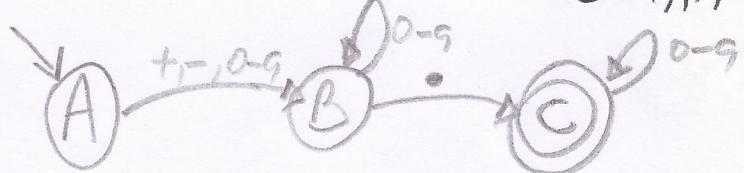
LISTA-4-EXERCÍCIO-1-LETRA-C



LISTA-4-EXERCÍCIO-2-LETRA-A



LISTA-4-EXERCÍCIO-2-LETRA-B



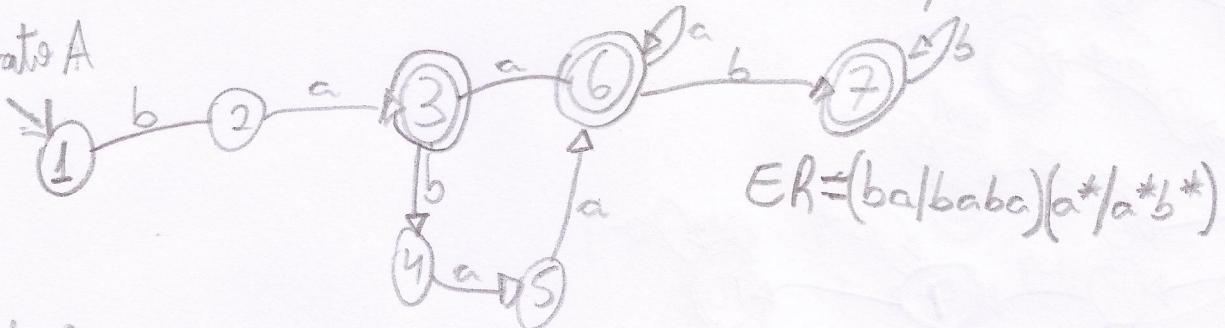
~~(+/- 0-9) 0-9* .. 0-9*~~

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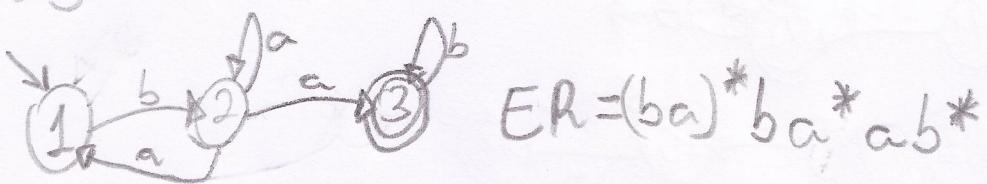
LISTA-4-EXERCÍCIO-3

O Autômato A e o Autômato B não são equivalentes.

Autômato A



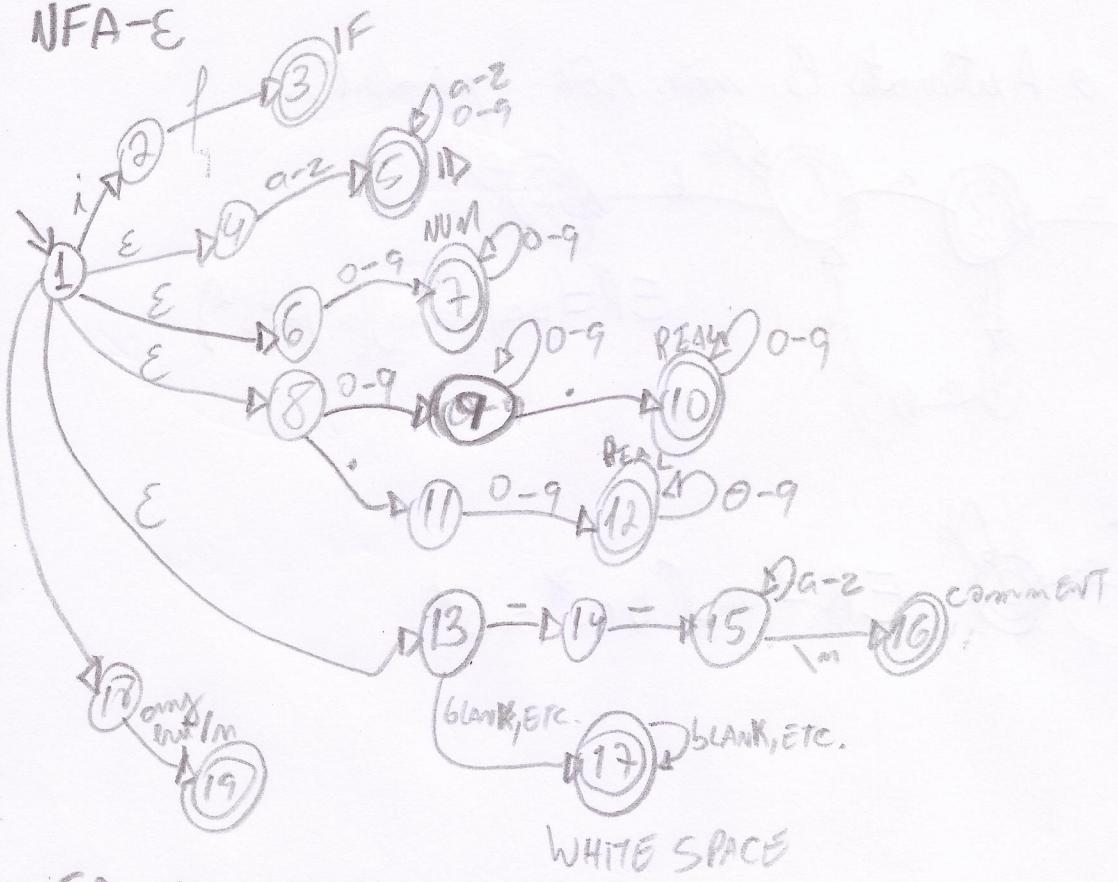
Autômato B



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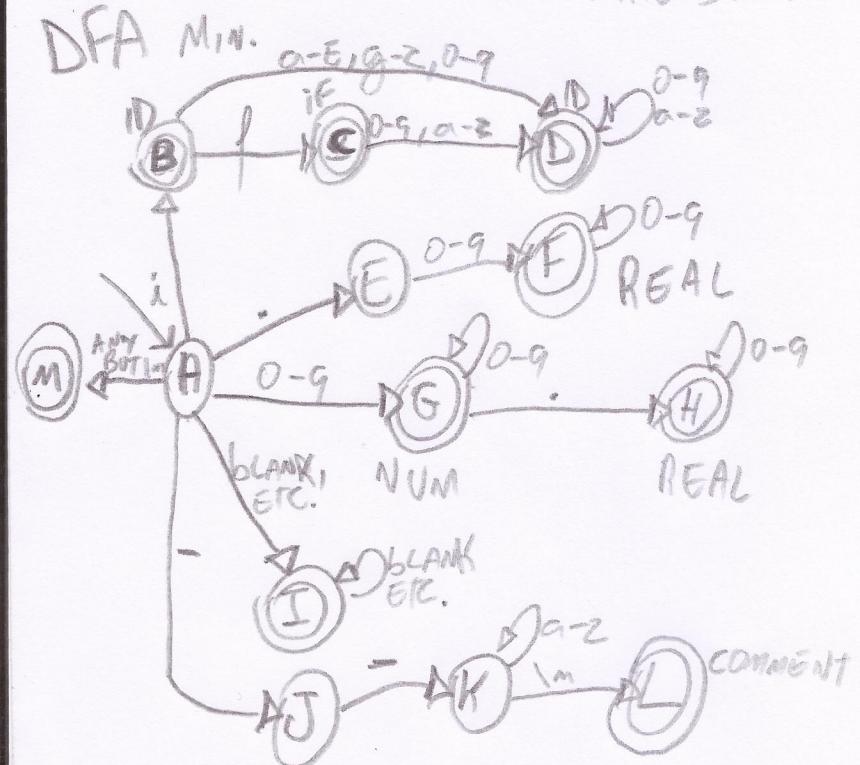
LISTA - 4 - EXERCÍCIO - 4

NFA-E



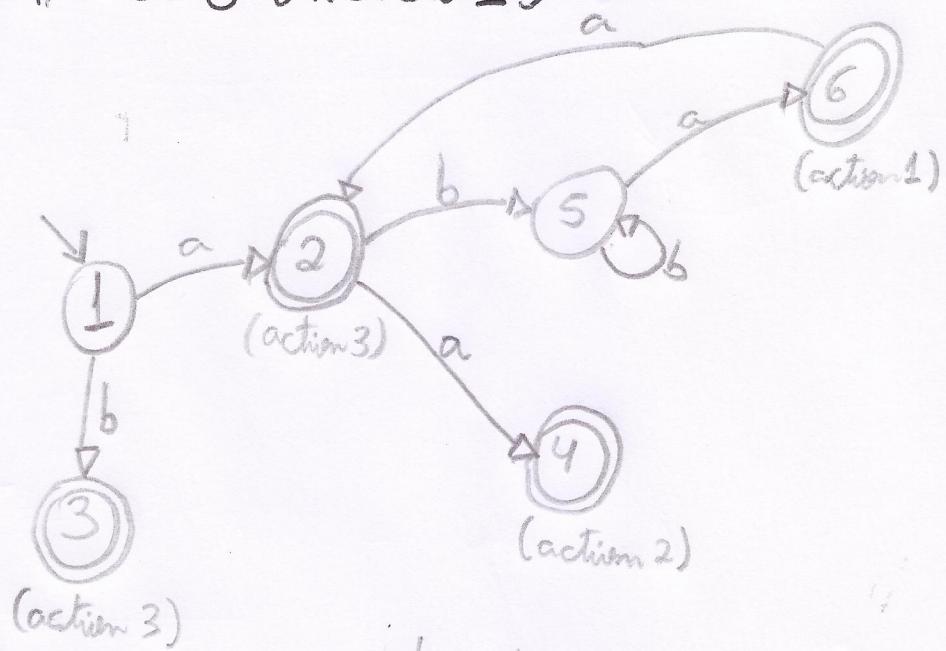
WHITE SPACE

DFA Min.



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LISTA - 5 - EXERCÍCIO - 3



abaabbaba \Rightarrow (action 1)
(action 2)
(action 3)
(action 3)