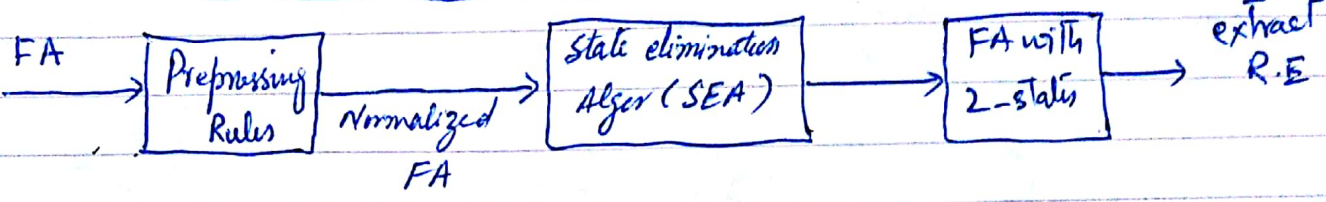


APRIL						
M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

ربيع الثاني ١٤٣١

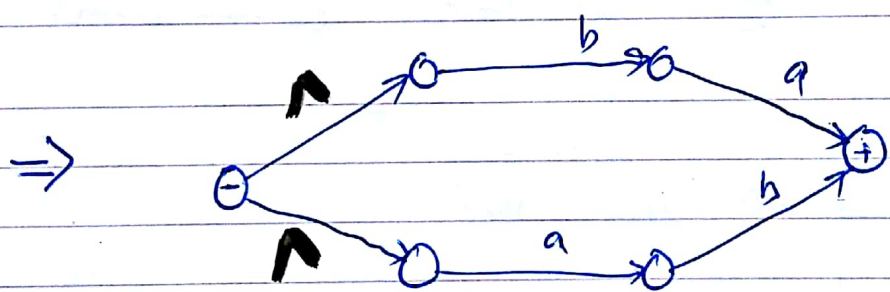
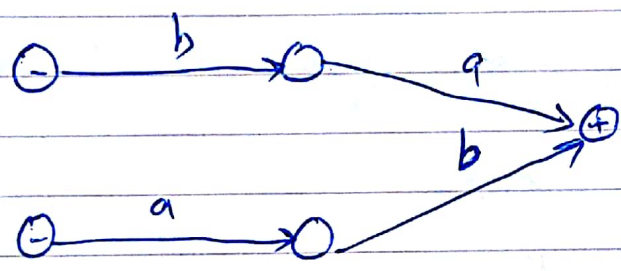
MAR-APR 2010

Extraction of R.E using SEA

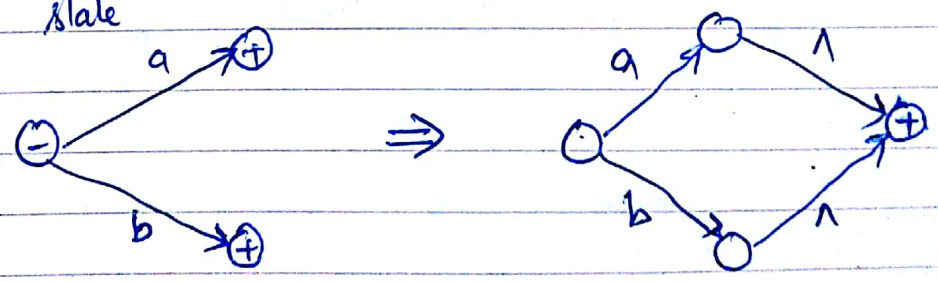


preprocessing Rules :-

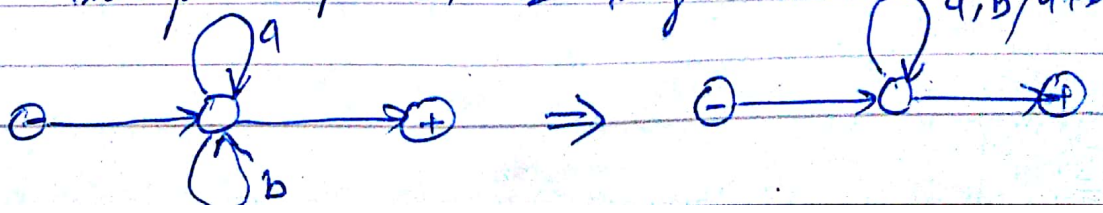
① One start state



② One end state

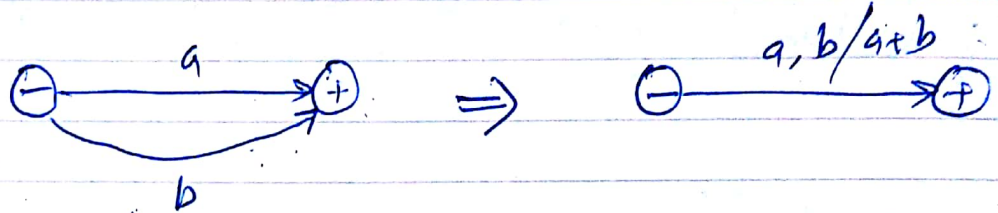


③ No multiple loops on a single state a, b/a+b

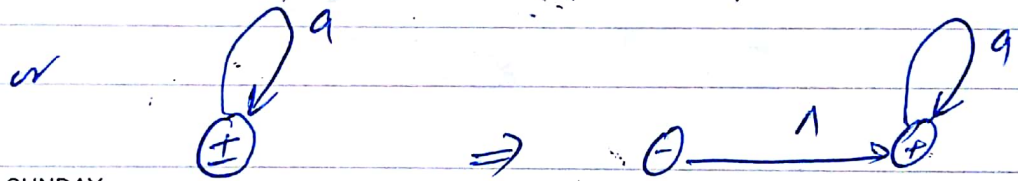
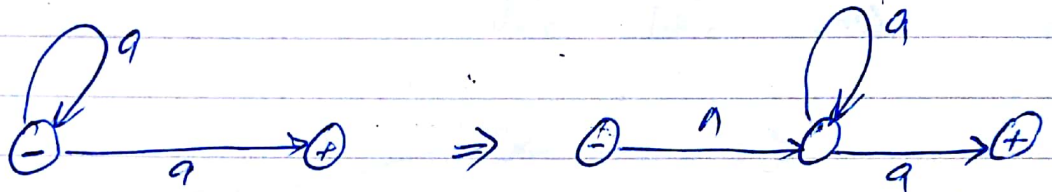


APRIL						
M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

④ No multiple paths



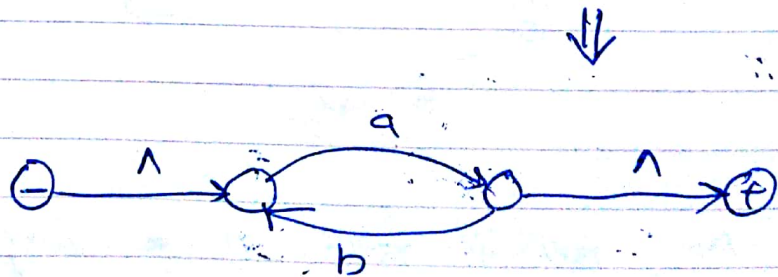
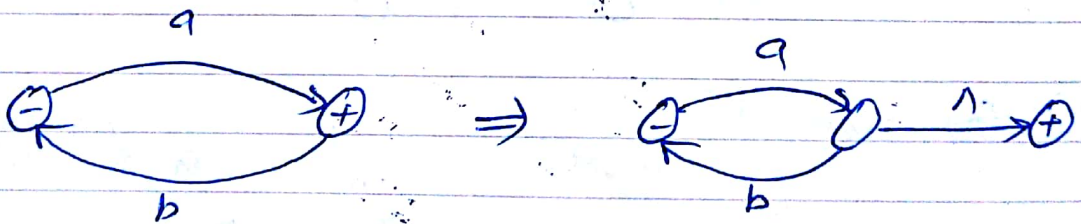
⑤ Un-entvable initial state



2 FRIDAY
١٢ ربيع الثاني

3 SATURDAY 4 SUNDAY
١٤ ربيع الثاني ١٨ ربيع الثاني

⑥ Un-removable final state



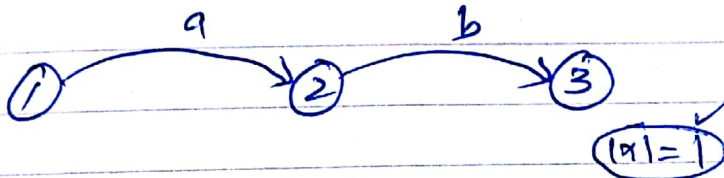
APRIL						
M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

ربيع الثاني ١٤٣١

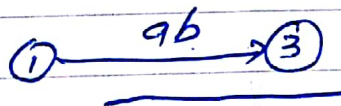
APRIL 2010

SEA (State Elimination Algorithm)

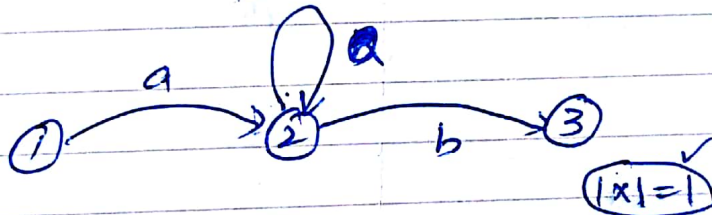
~~XXXXXXXXXX~~



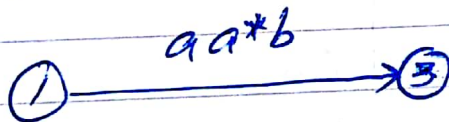
Removing ② would be



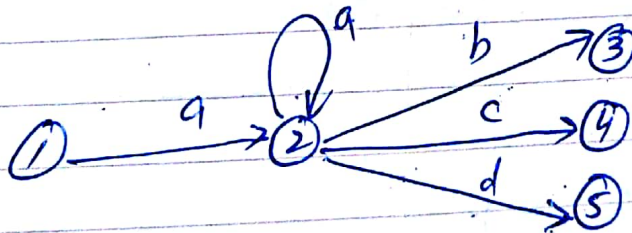
and/or



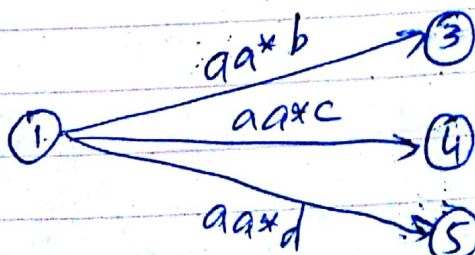
Removing ② would be



and/or



Removing/eliminating ②, we have



Total path/edges
= Incoming edges
* outgoing edges
(excluding loops)

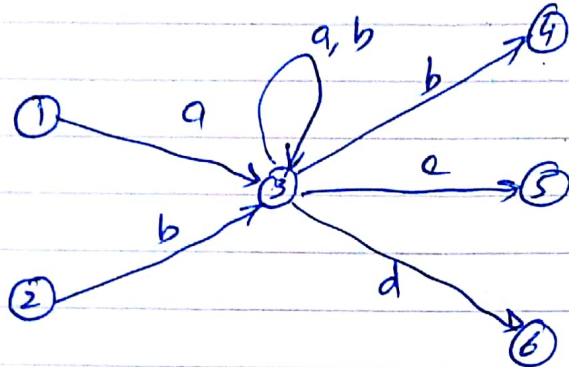
MONDAY 5
١٩ ربيع الثاني

TUESDAY 6
٢٠ ربيع الثاني

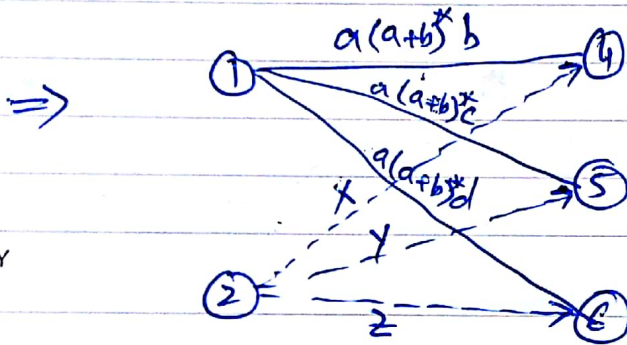
Evening

APRIL						
M	T	W	T	F	S	S
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

and/or



$$2 \times 3 = 6$$



7 WEDNESDAY
ربيع الثاني 21

8 THURSDAY
ربيع الثاني 22

where

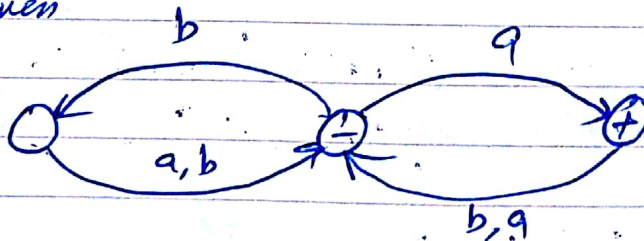
$$x = b(a+b)^*b$$

$$y = b(a+b)^*c$$

$$z = b(a+b)^*d$$

Example

Given



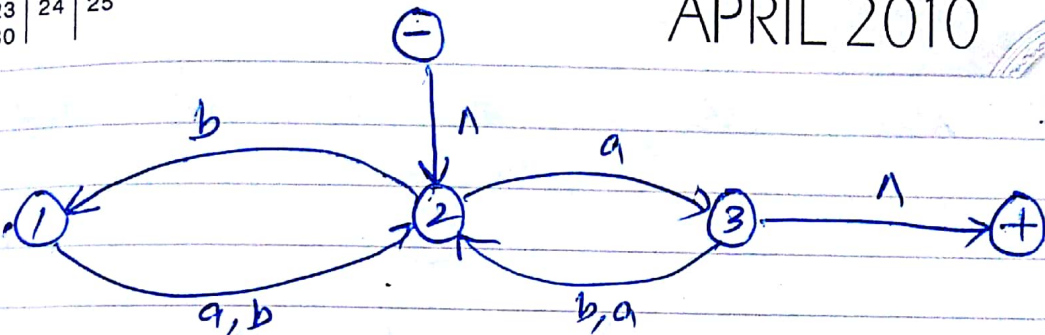
Evening

By applying preprocessing rules first

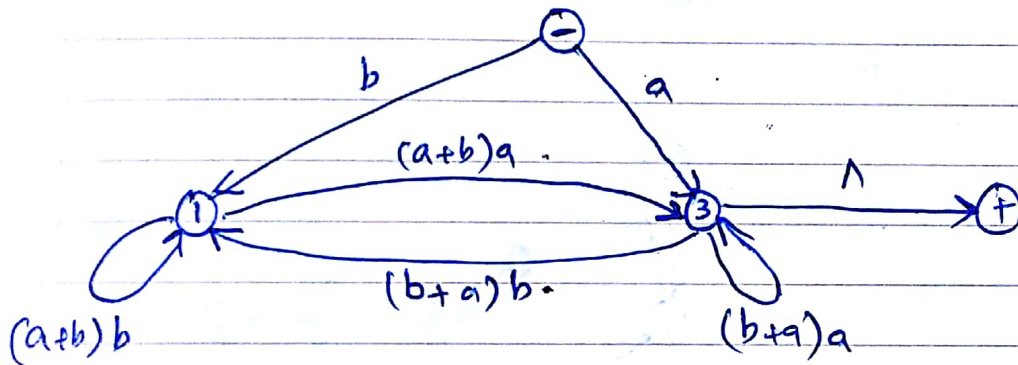
APRIL						
M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

ربيع الثاني ١٣٣١

APRIL 2010



by eliminating ②, we have



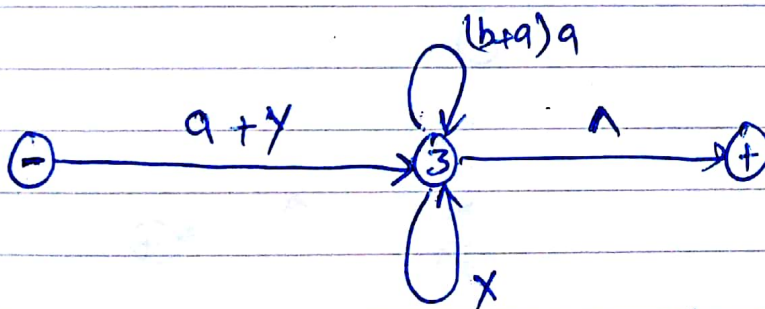
3x2=6

Evening

FRIDAY 9
٢٣ ربيع الثاني

SUNDAY ٢٥ ربيع الثاني | SATURDAY ١٠
٢٢ ربيع الثاني

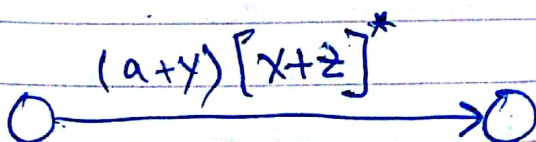
eliminating ①, we have



2x1=2

where $x = (b+a)b [(a+b)b]^* (a+b)a$
 $y = b [(a+b)b]^* (a+b)a$

Now eliminating ③, we have (Multiple loops exists)
 where $z = (b+a)a$



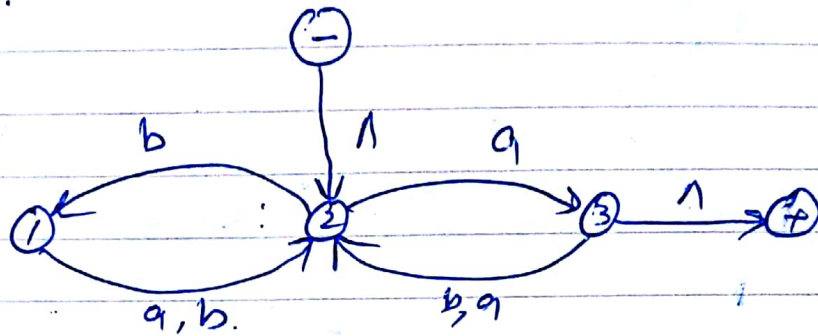
1x1=1
Evening

ربيع الثاني ١٤٣١

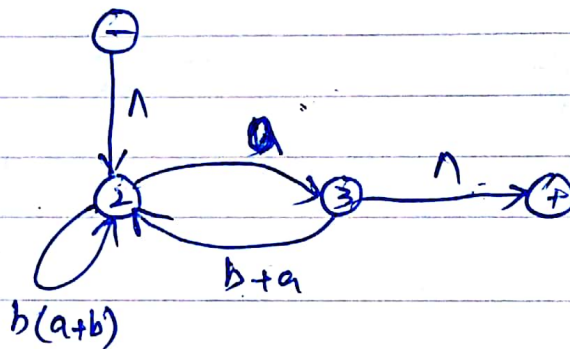
APRIL 2010

APRIL						
M	T	W	T	F	S	S
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Now change The sequence 1, 3, 2



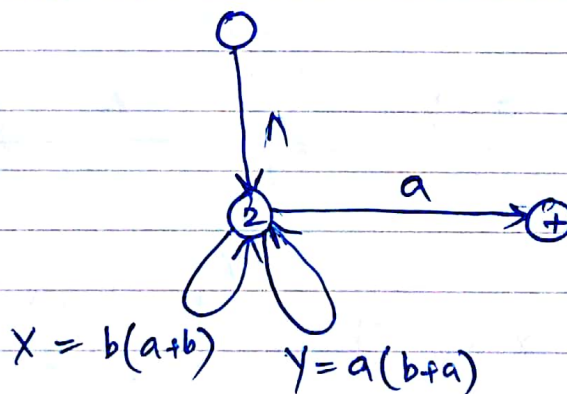
eliminating ①



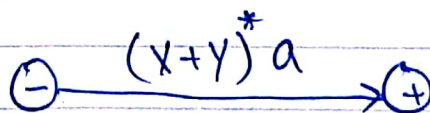
12 MONDAY
ربيع الثاني ٢٦

13 TUESDAY
ربيع الثاني ٢٧

eliminating ③



eliminating ②



Evening

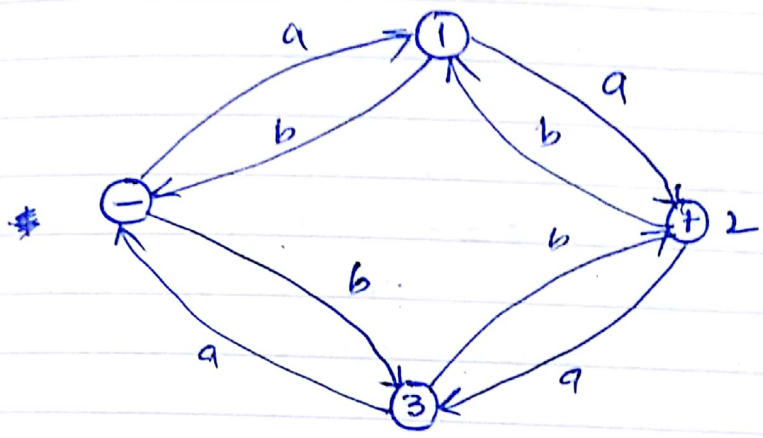
APRIL						
M	T	W	T	F	S	S
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

ربيع الثاني ١٤٣١

APRIL 2010

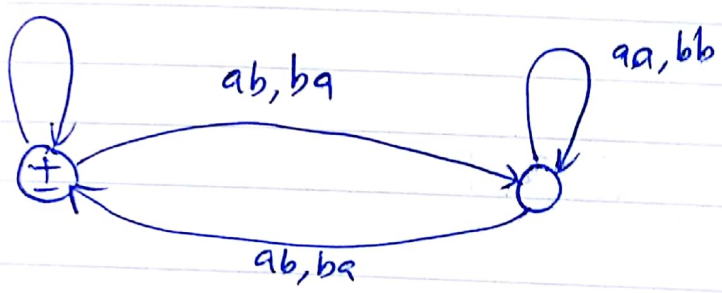
Home work

1-



aa, bb

2-



WEDNESDAY 14
ربيع الثاني ٢٨

THURSDAY 15
ربيع الثاني ٢٩

Evening