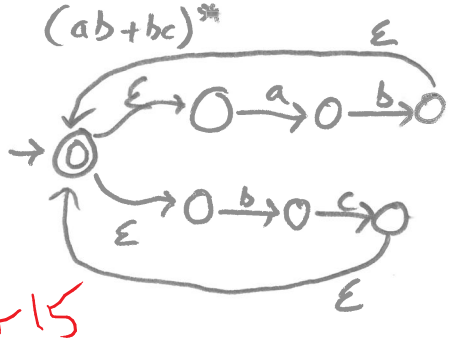
Anthony Fraser
CSCE355
Test 3
11/7/17

50

1) regex → ε-NFA

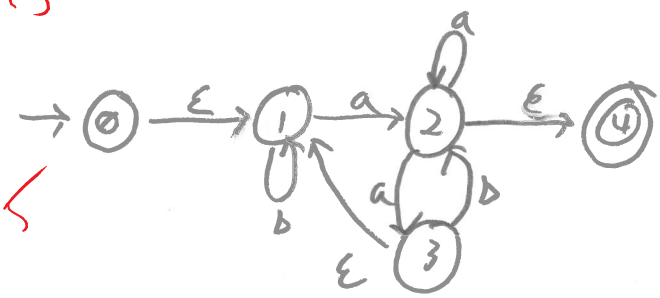
$(ab+bc)^*$



+15

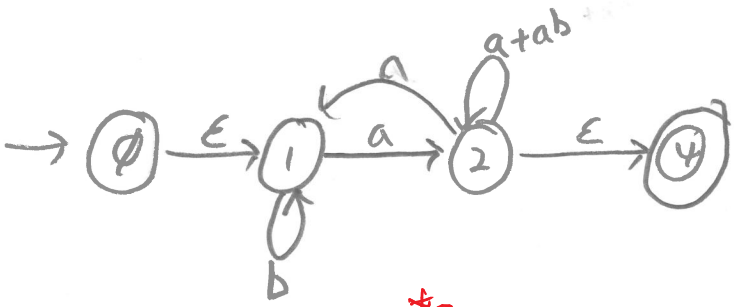
2)

eliminate in order: 3, 1, 2

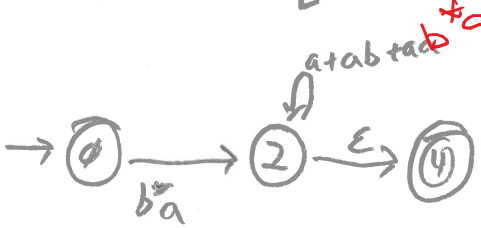


+15

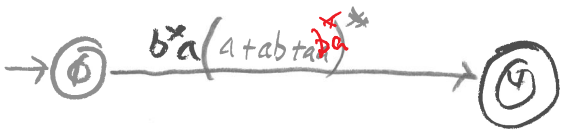
remove 3:



remove 1:



remove 2:



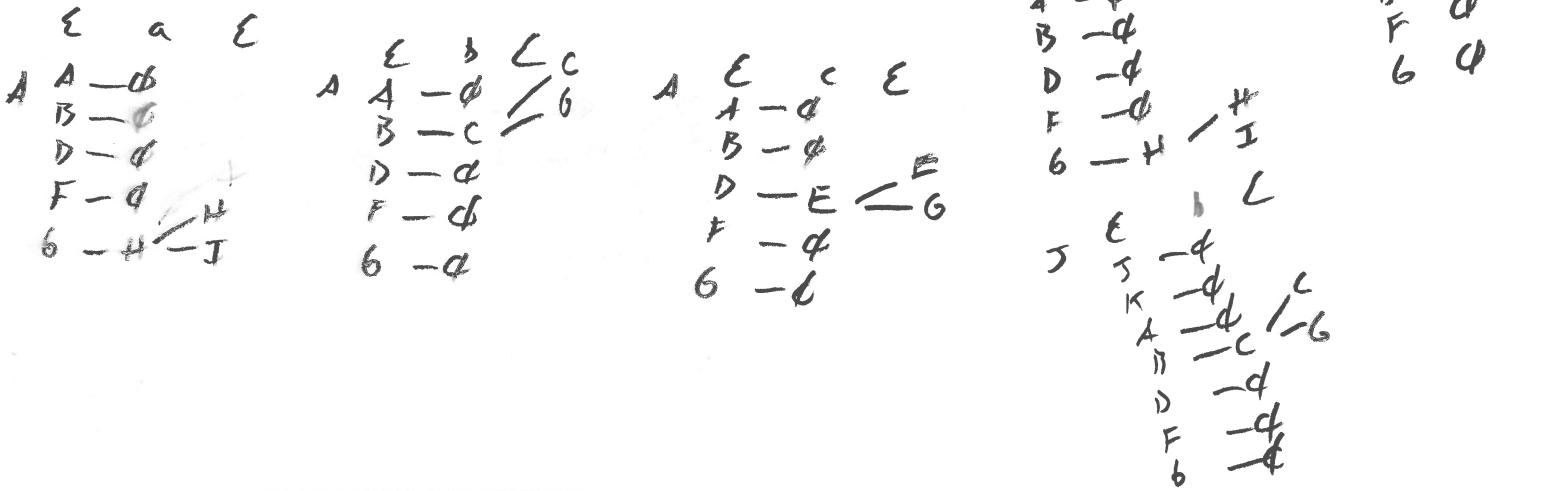
+20

3) ENFA → NFA

s = dead state

	ε	a	b	c
→A*	{A,B,D,F,G}	∅	∅	∅
B	B	∅	C	∅
C	{C,G}	∅	∅	∅
D	D	∅	∅	E
E	{E,G}	∅	∅	∅
F	{F,G}	∅	∅	∅
G	G	H	∅	∅
H	{H,I}	∅	∅	∅
I	I	J	∅	∅
J	{J,K,A,B,D,F,G}	∅	∅	∅
K	{K,A,B,D,F,G}	∅	∅	∅

	a	b	c
→A*	HI	CG	EG
HI	J	s	s
CG	H	s	s
EG	H	s	s
J	HI	CG	EG
H	s	s	s
s	s	s	s



4) The complement of $a^*b^*c^*$ would be $(b+c)^*(a+c)^*(a+b)^*$.

aba ∉ aba ∉