

1

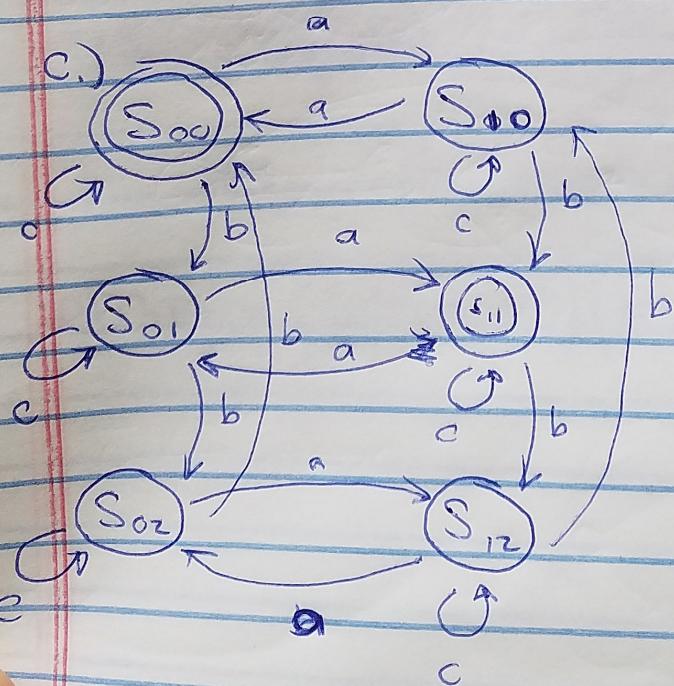
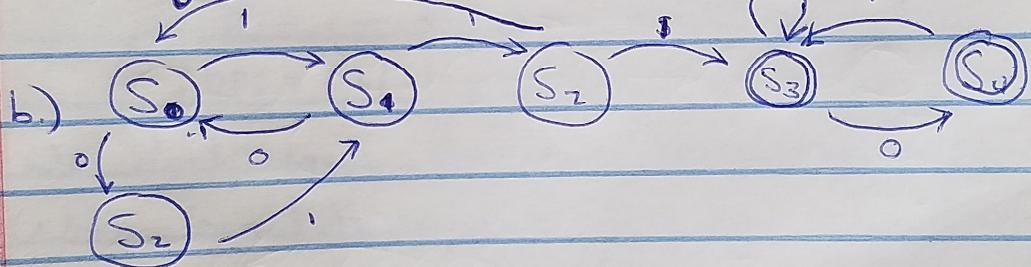
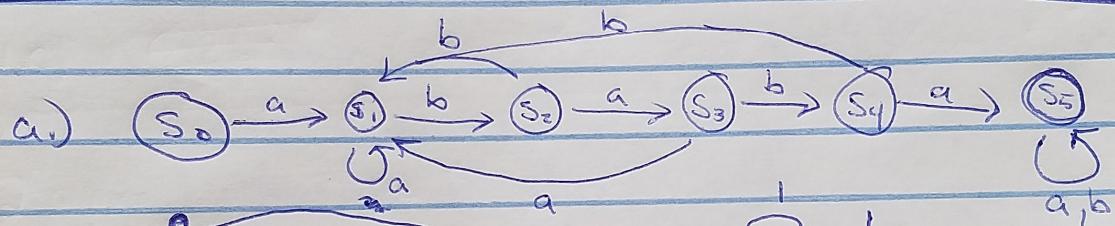
a.) $b(ab)^*b$

@gtimmons

b.) $(10|01)^*(11|00)(0|1)^*$

c.) $(ab|b^*)^*aaa^*ba^*b(ab|b^*)^*aa(a|b)^*$

2



~~$S_{00} \Rightarrow a \bmod 2 \equiv i, b \bmod 3 \equiv j$~~

$S_{ij} \Rightarrow a \bmod 2 \equiv i, b \bmod 3 \equiv j$

4c. $: \text{Digit} := (1|2|3|4|5|6|7|8|9)$

$: \text{Decimal} := 1.(0:\text{DIGIT:})(0:\text{DIGIT:})$

$: \text{Thousands} := , (0:\text{DIGIT:})(0:\text{DIGIT:})(0:\text{DIGIT:})$

$: \text{REGEX} := \$: \text{DIGIT:} (0:\text{DIGIT:}|3)(0:\text{DIGIT:}|3) (\text{Thousands})^* (: \text{DECIMAL})$

(In Modern Regex) : $\$ [1-9][0-9]?[0-9]? ([0-9]\{3\})^* (1.[0-9]\{2\})?$

5. ~~intVar~~ $: \text{INT} := (0|(1|2\dots|9)(0|1|2\dots|9)^*$

$: \text{VAR} := (a|b|c\dots|z)(a|b|c\dots|z)^*$

$: \text{ID} := (\text{INT}|\text{VAR}) (\text{INT}|\text{VAR})^*$

$: \text{OP} := (+|-|\times|/)$

We don't require that our REGEX validate brackets.

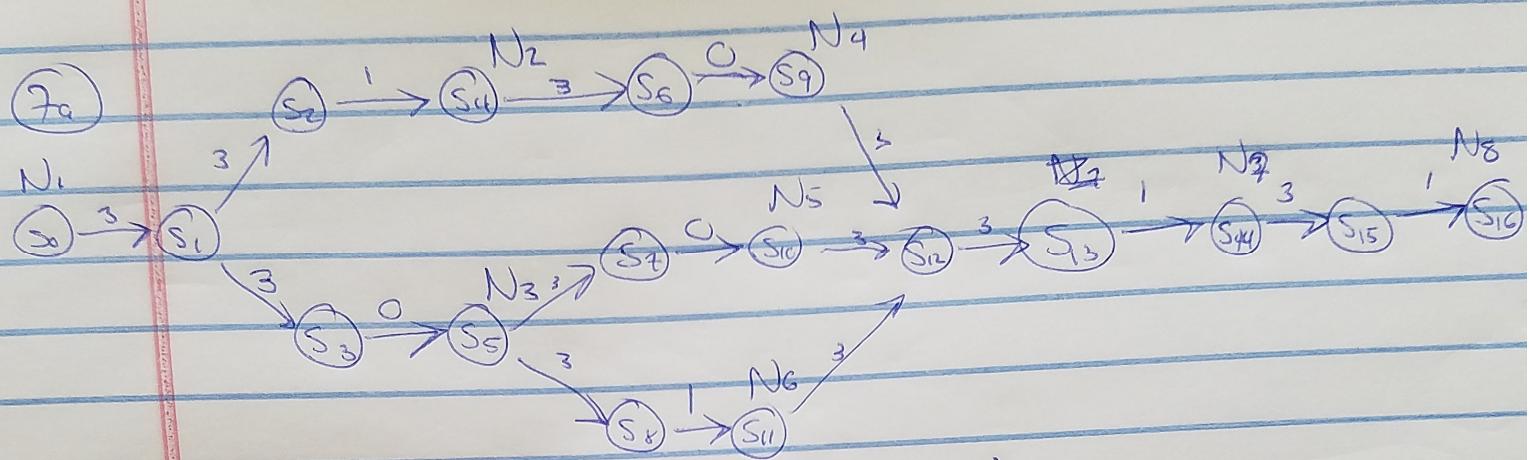
With brackets removed a valid exp have the form

~~intVar intVar intVar intVar intVar~~ $: \text{VAR} (\text{OP} : \text{VAR})^*$

With parenthesis added (no validation)

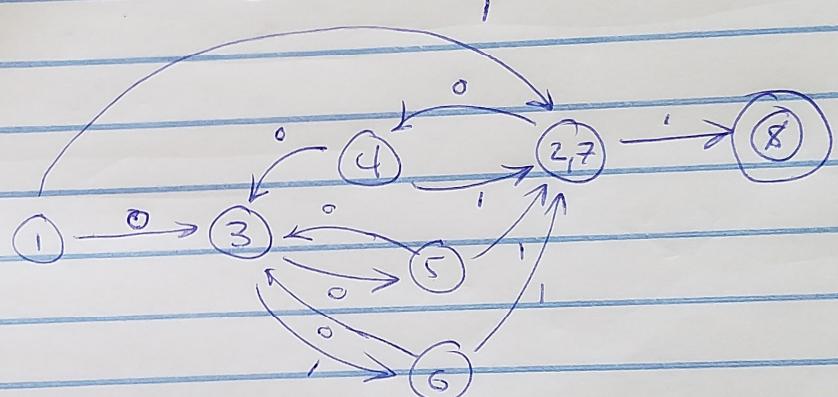
$: \text{REGEX} := ((*: \text{VAR}:)^*) ((\text{OP}: ((*: \text{VAR}:)^*))^*$

Note: $\backslash)^*$
is escaped paren



7b

	1	0	1
N ₁	2,7	3	
N ₂		4	
N ₃	6	5	
N ₄	2,7	3	
N ₅	2,7	3	
N ₆	2,7	3	
N ₇	8		
N ₈		1	
N ₉	8	4	



7c

