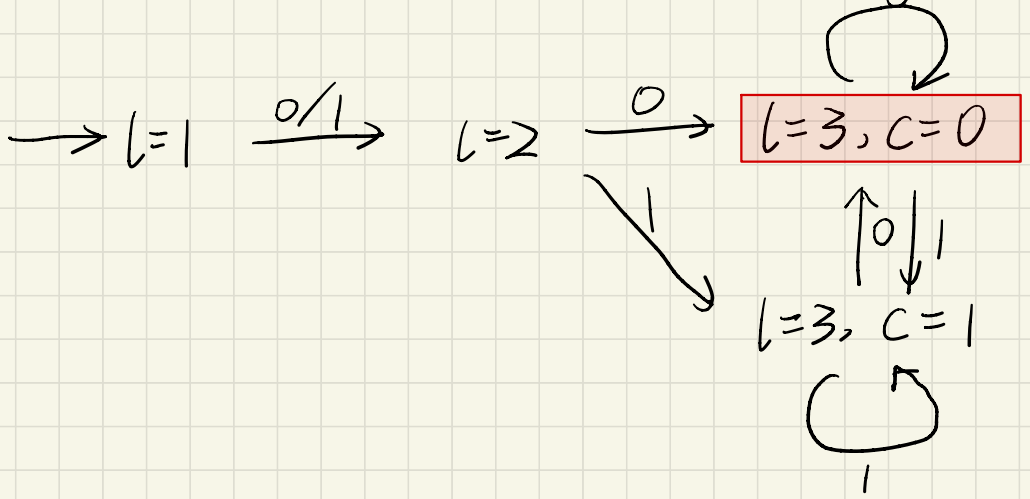
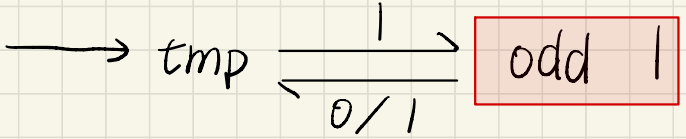
1.6

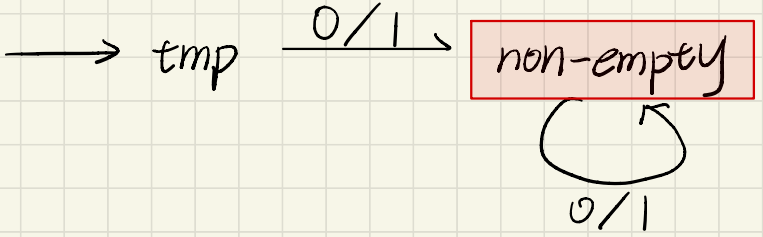
(d)



(i)

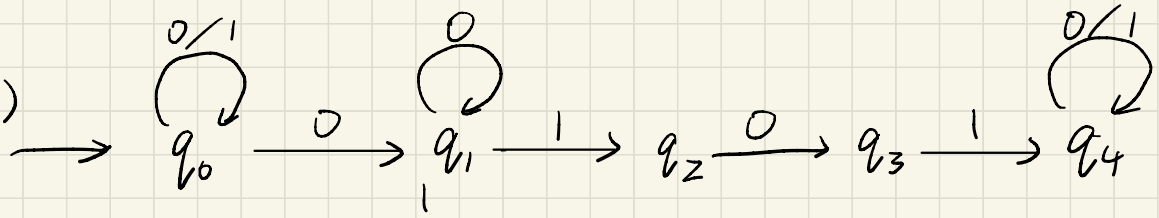


(n)

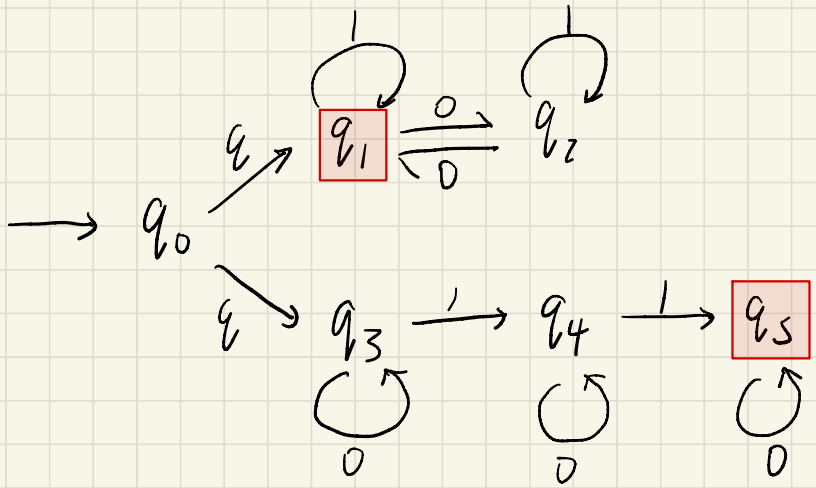


1.7.

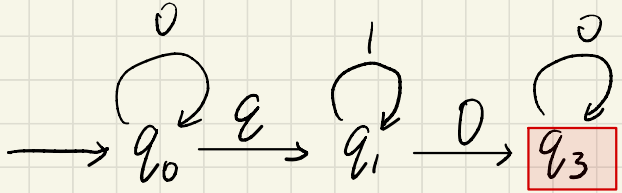
(b)


0/1
0
0/1
q_0
q_1
q_2
q_3
q_4
0
1
1
0
1

(c)


1
1
q_1
q_2
0
0
q_0
q_3
q_4
q_5
1
1
0
0
0

(e)

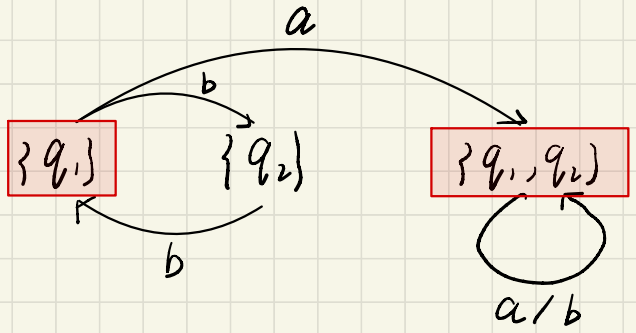

0
1
0
q_0
q_1
q_3
0
1

1.16.

①

	a	b
ϕ	ϕ	ϕ
$\{q_1\}$	$\{q_1, q_2\}$	$\{q_2\}$
$\{q_2\}$	ϕ	$\{q_1\}$
$\{q_1, q_2\}$	$\{q_1, q_2\}$	$\{q_1, q_2\}$

$\Rightarrow$



② NFA:

$\varepsilon\text{-}C(q_1) = \{q_1, q_2\}$

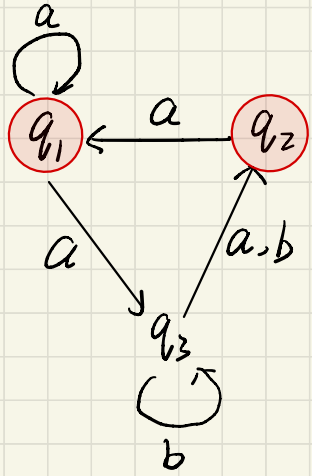
$\varepsilon\text{-}C(q_2) = \{q_2\}$

$\varepsilon\text{-}C(q_3) = \{q_3\}$

$\Rightarrow$ $\delta_N \cup \langle (q_1, a), q_1 \rangle$

$F_N \cup \{q_1\}$

$\Rightarrow$

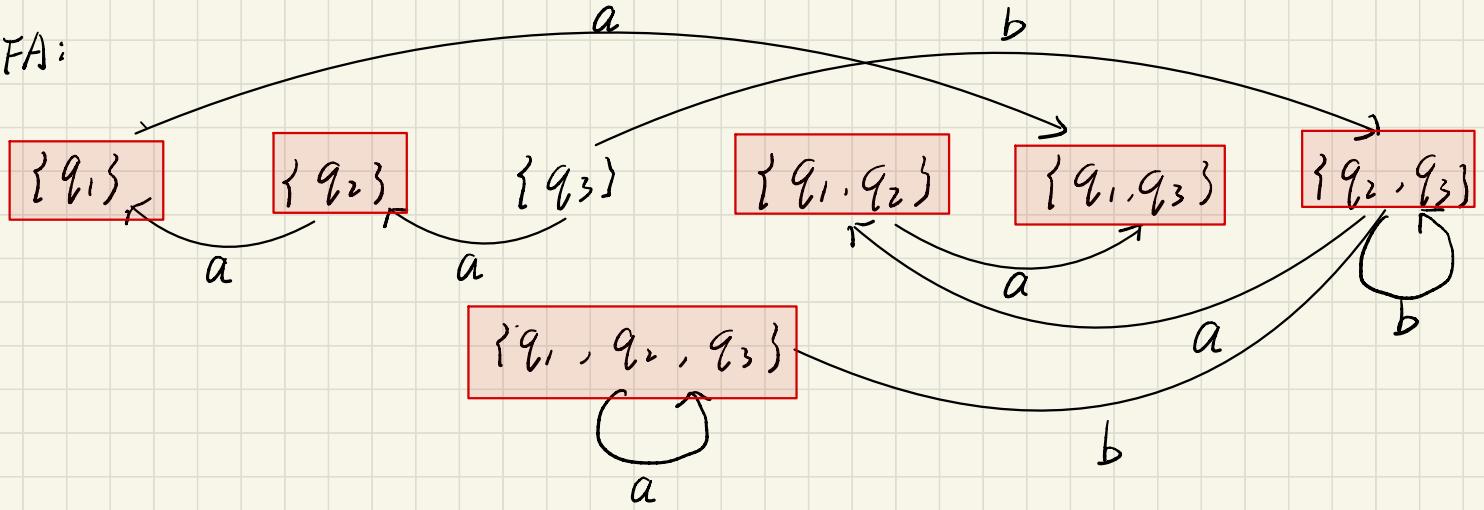


$\therefore$

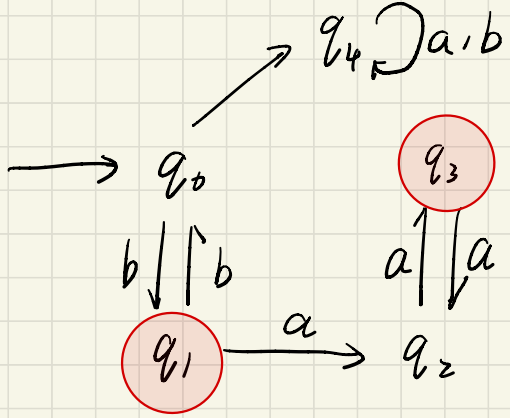
ϕ	a	b
$\{q_1\}$	$\{q_1, q_3\}$	ϕ
$\{q_2\}$	$\{q_1\}$	ϕ
$\{q_3\}$	$\{q_2\}$	$\{q_2, q_3\}$

$\{q_1, q_2\}$	$\{q_1, q_3\}$	ϕ
$\{q_2, q_3\}$	$\{q_1, q_2\}$	$\{q_2, q_3\}$
$\{q_1, q_2, q_3\}$	$\{q_1, q_2, q_3\}$	$\{q_2, q_3\}$

∴ DFA:



1.12.



regular expression:

$$b(bb)^*(aa)^*$$