

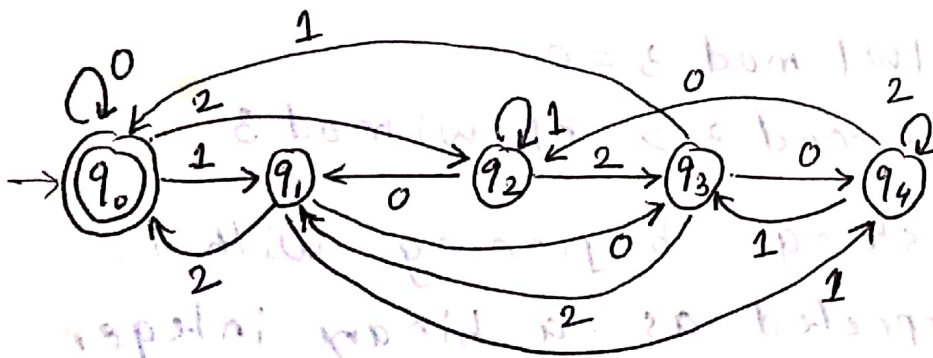
Design DFA

mod 5 Tester for Ternary input.

$\Sigma = \{0, 1, 2\}$

base 3
number system

remainder 0 1 2 3 4
 q_0 q_1 q_2 q_3 q_4



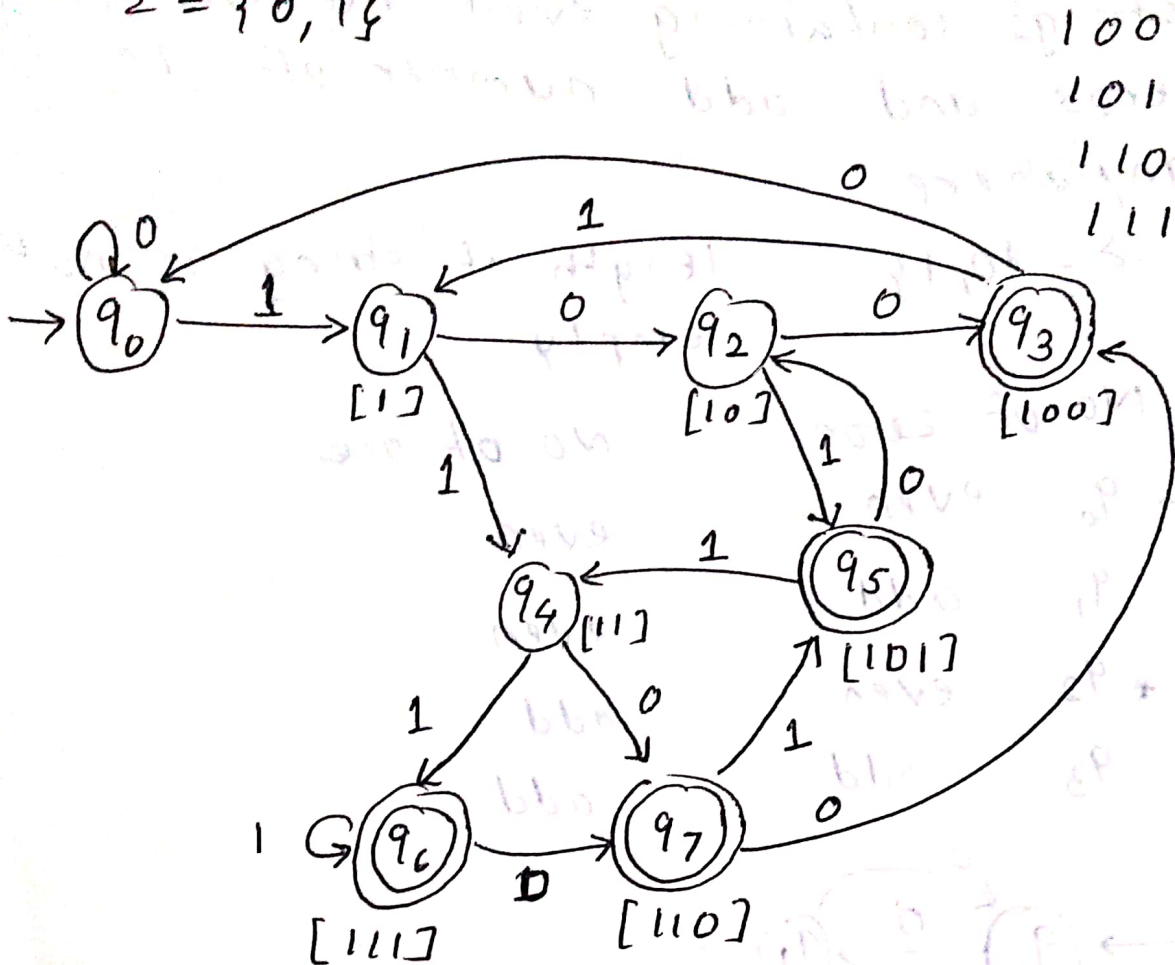
Test

$$\begin{array}{r}
 20 = \begin{array}{ccc} 3^2 & 3^1 & 3^0 \\ 2 & 0 & 2 \\ 18 + 0 + 2 \end{array}
 \end{array}$$

	3^2	3^1	3^0	
0	0	0	0	q_0
1	0	0	1	q_1
2	0	0	2	q_2
3	0	1	0	q_3
4	0	1	1	q_4
5	0	1	2	q_0
6	0	2	0	q_1
7	0	2	1	q_2
8	0	2	2	q_3
9	1	0	0	q_4
10	1	0	1	q_0
11	1	0	2	q_1
12	1	1	0	q_2
13	1	1	1	q_3
14	1	1	2	q_4
15	1	2	0	q_0
16	1	2	1	q_1

3rd symbol from right is 1

$\Sigma = \{0, 1\}$



(18) Every a is preceded by b .
and string must start with b .
ie aa \times

