

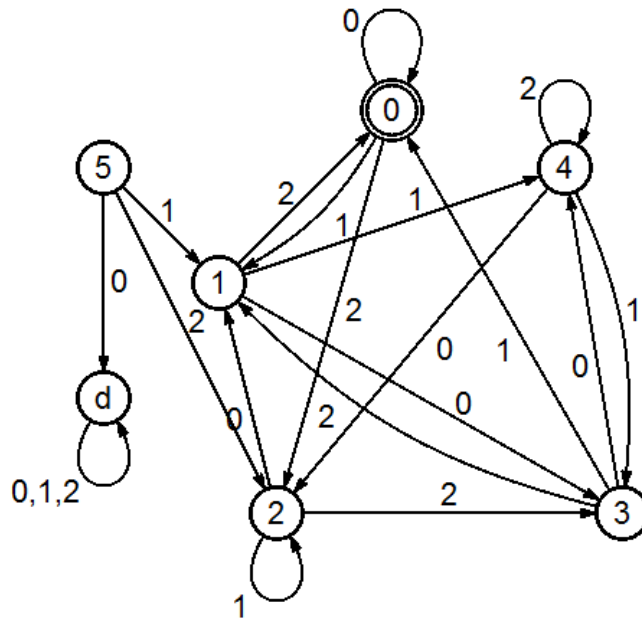
(해설)

1. 5로 나누었을 때, 나누어떨어지는 삼진수의 집합인 DFA는 다음과 같다.

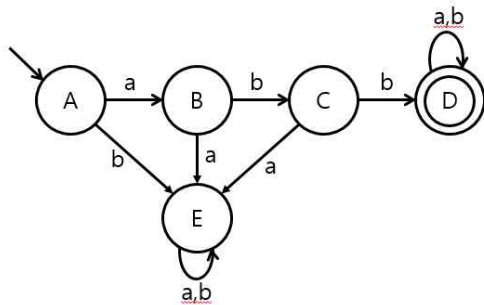
$$DFA M = (Q, \Sigma, \delta, q_0, F)$$

where $Q = \{q_0, q_1, q_2, q_3, q_4, q_5, d\}$, $\Sigma = \{0, 1, 2\}$, $F = \{q_0\}$,

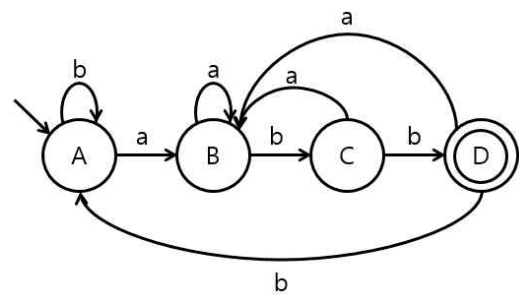
$\delta : Q \times \Sigma \rightarrow Q$ such that for any $a \in \{0, 1, 2\}$, $\delta(q_i, a) = q_j$ where $j \equiv 3 \cdot i + a \pmod{5}$ ($i, j = 0, 1, 2, 3, 4$) and $\delta(d, a) = d$, $\delta(q_5, 0) = d$, $\delta(q_5, 1) = q_1$, $\delta(q_5, 2) = q_2$.



2-(1).



2-(2).



2-(3).

