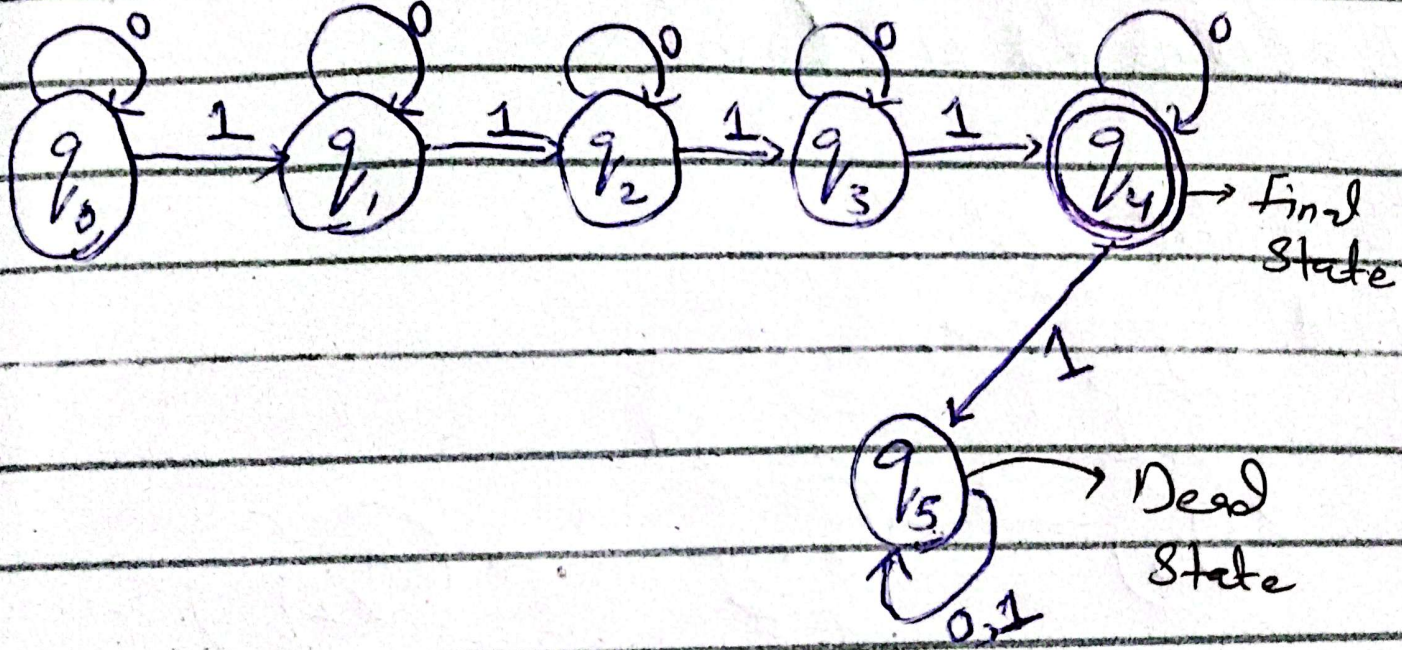
Examples

Q: Draw FA for the language that have exactly 4 ones in every string over. $\Sigma = \{0, 1\}$.

$RE = 0^*10^*10^*10^*10^*$

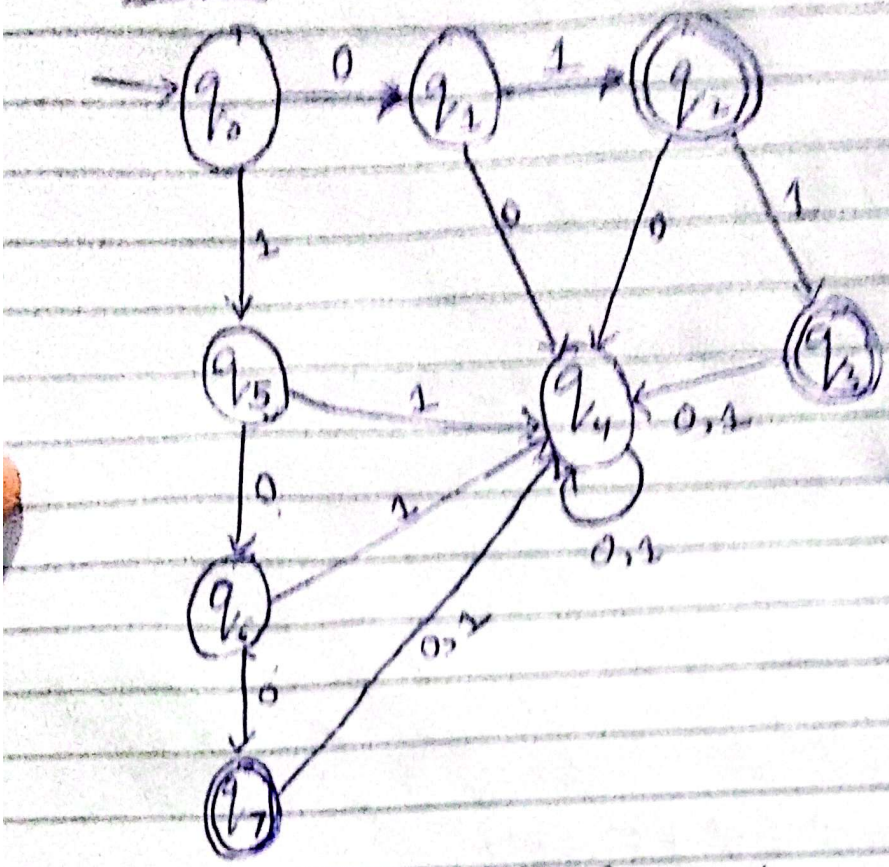
DFA



Q: Draw FA for the language that only accept $L = \{01, 011, 100\}$ over $\Sigma = \{0, 1\}$.

$RE = 01 + 011 + 100.$

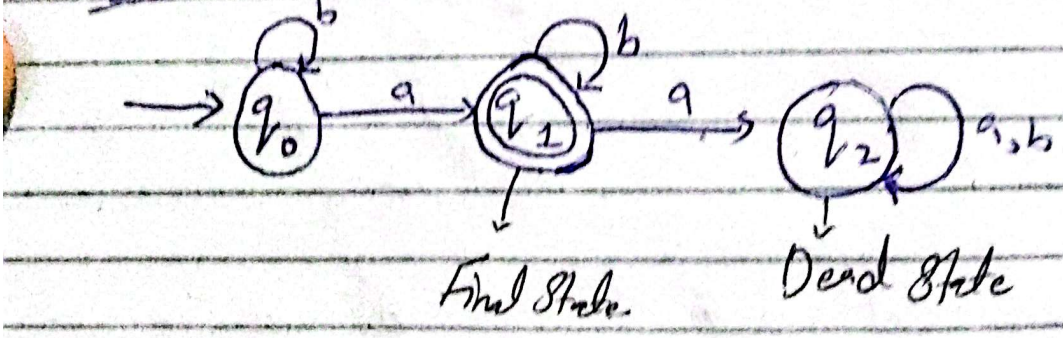
DFA



Q: Draw FA for the following language L
$L = \{w : n_a = 1, w \in \{a,b\}^*\}$

$RE = b^* a b^*$

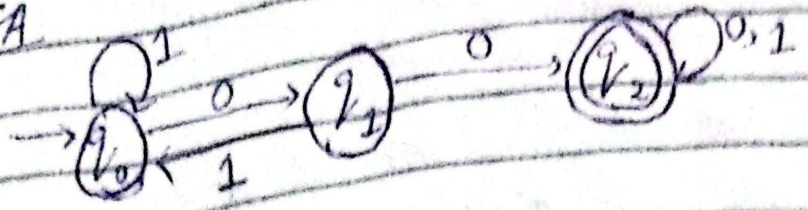
DFA



Q: $L = \{w \in \{0,1\}^* \mid w$ contains 00 as a substring$\}$.

$RE = (0+1)^* 00 (0+1)^*$

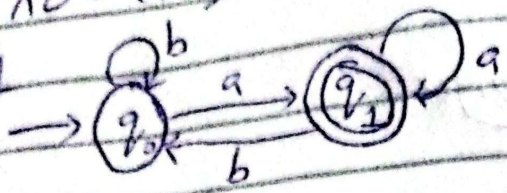
DFA



Q: Draw FA accept all words ending with a.

$RE = (a+b)^* a$.

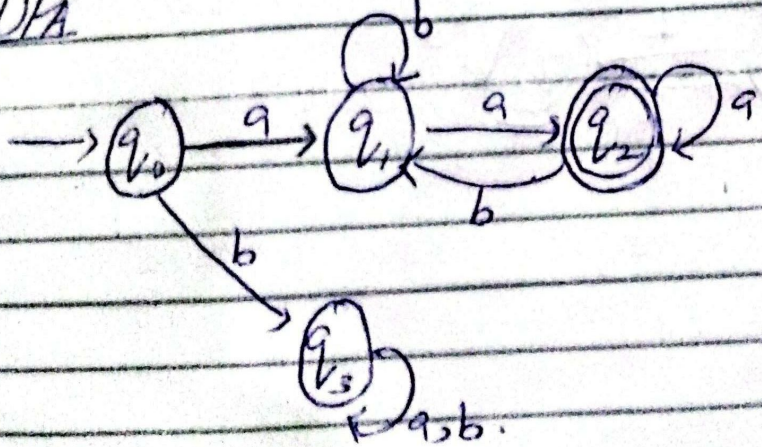
DFA



Q: Draw FA that accept all words starting and ending with a over $\Sigma = \{a, b\}$.

$RE = a(a+b)^* a$

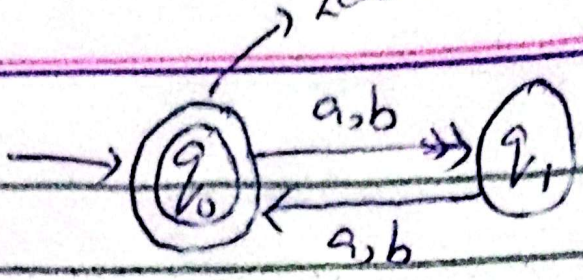
DFA



Q: Draw FA that accept all Strings with even lengths over $\Sigma = \{a, b\}$.

$RE = (aa + ab + ba + bb)^*$

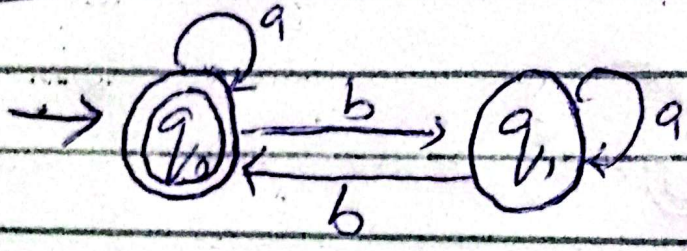
Zero is also called even.



Q: Draw FA that accepts all strings with even no: of b's over $\Sigma = \{a, b\}$.

$RE = a^* + (a^*ba^*ba^*)^*$

DFA



Q: Draw FA that accept all strings with odd no of 1's over $\Sigma = \{0, 1\}$.

$RE = 0^*10^*(10^*10^*)^*$

DFA