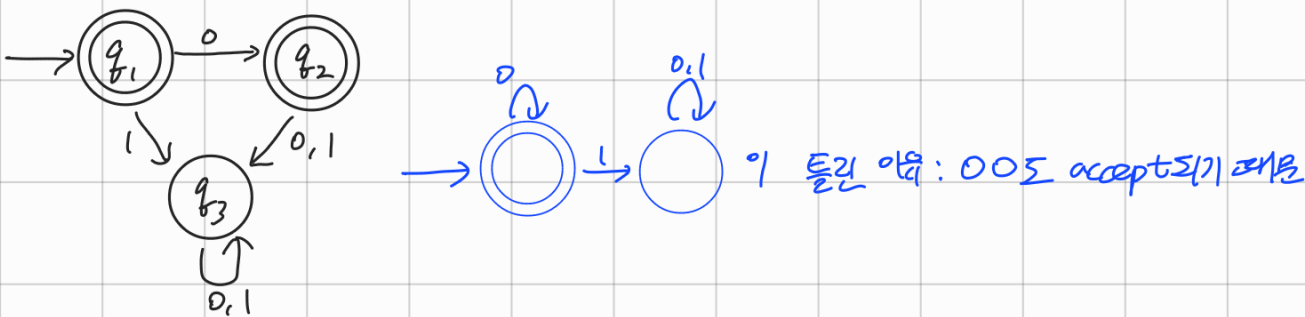
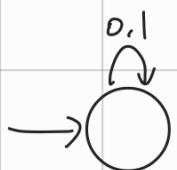


A. $\Sigma = \{0, 1\}$ 일 때 다음 언어를 인식하는 DFA의 State diagram을 그리시오.

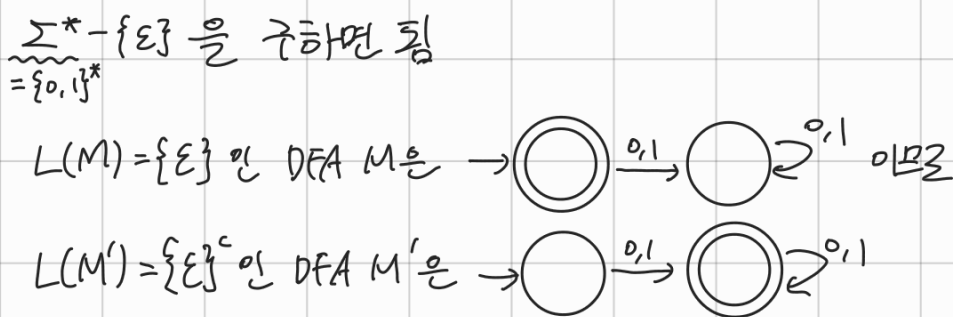
1.6(k) $\{\epsilon, 0\}$



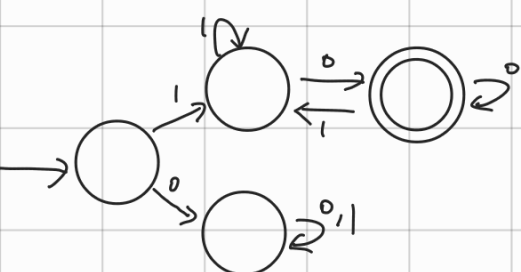
1.6(m) empty set(공집합) \emptyset



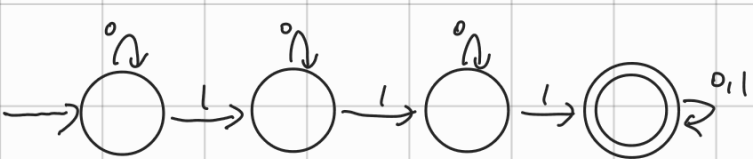
1.6(n) All strings except the empty string ($\Sigma^* - \{\epsilon\}$)



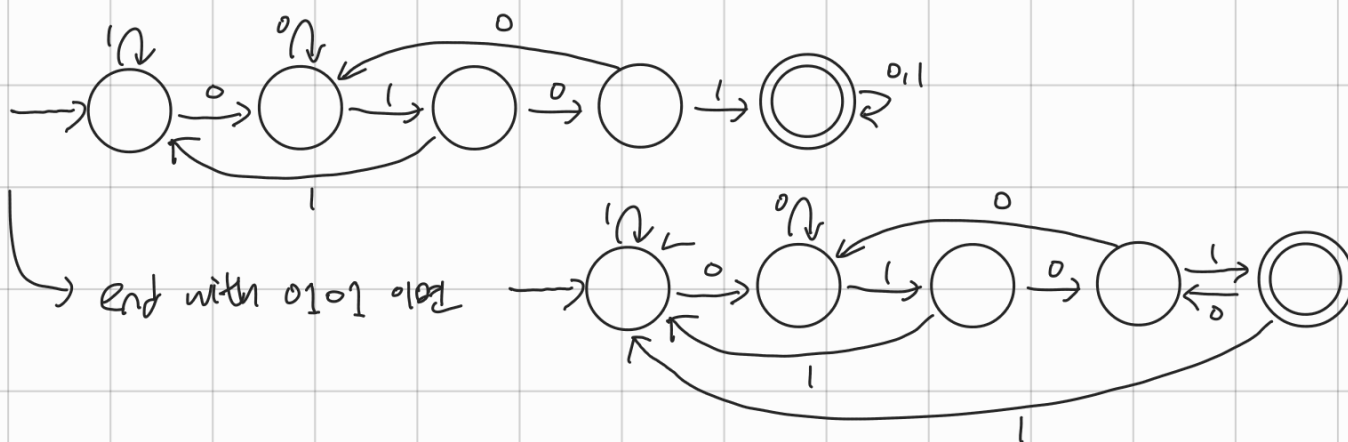
1.6(a) $\{w : w \text{ begins with a 1 and ends with a 0.}\}$



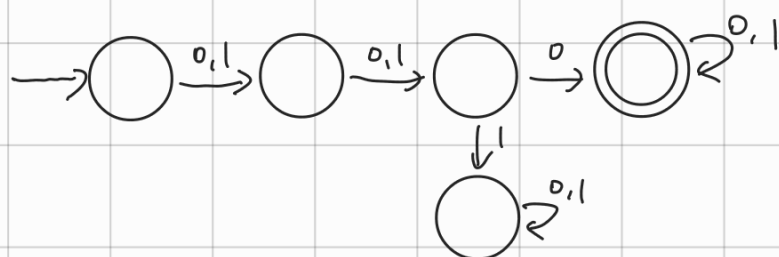
1.6(b) $\{w : w \text{ contains at least three 1s.}\}$



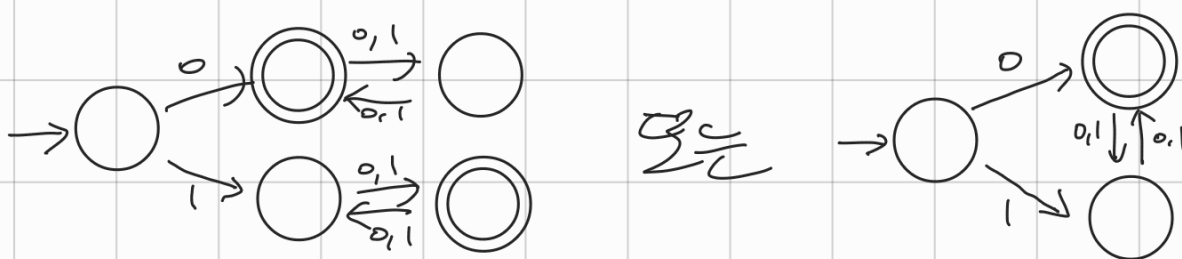
1.6(c) $\{w : w \text{ contains the substring } 0101. \}$



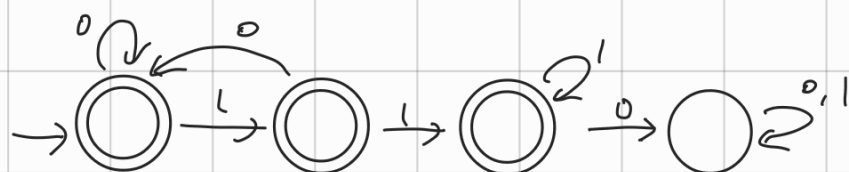
1.6(d) $\{w : w \text{ has length at least 3 and its third symbol is a 0.}\}$



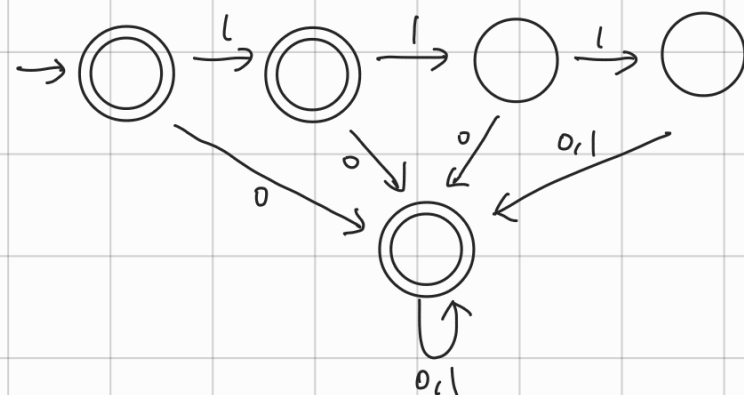
1.6(e) $\{w : w \text{ starts with 0 and has odd length, or starts with 1 and has even length.}\}$



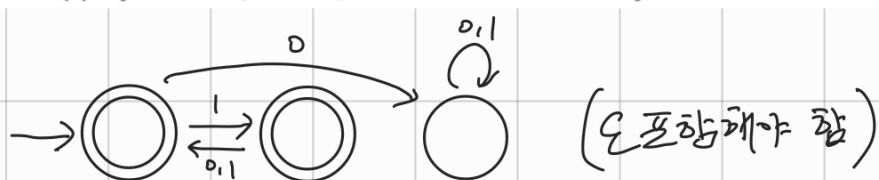
1.6(f) $\{w : w \text{ doesn't contain the substring } 110. \}$



1.6(h) $\{w : w \text{ is any string except } 11 \text{ and } 111. \}$

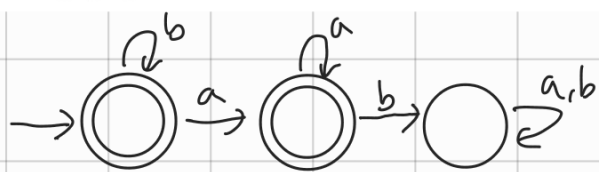


1.6(i) $\{w : \text{every odd position of } w \text{ is a 1.}\}$

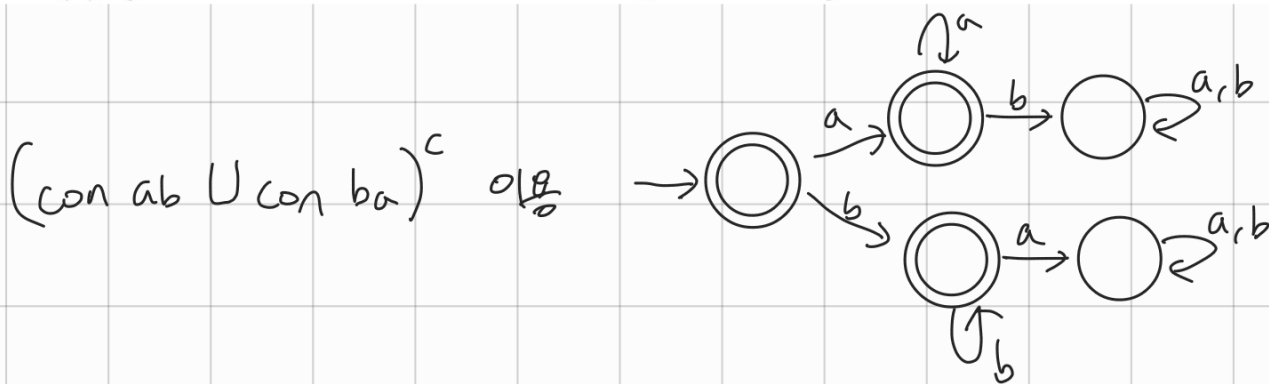


B. $\Sigma = \{a, b\}$ 일 때 다음 언어를 인식하는 DFA의 State diagram을 그리시오.

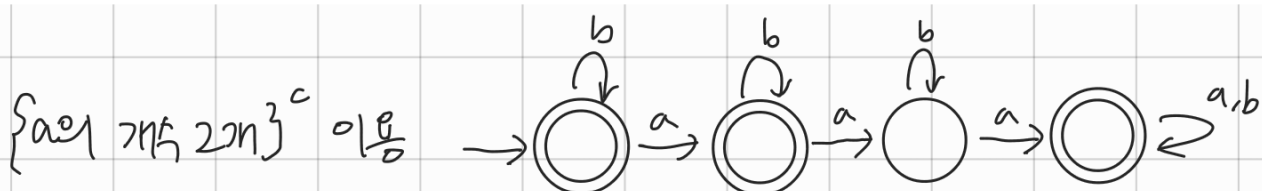
1.5(a) $\{w : w \text{ does not contain the substring } ab.\}$



1.5(c) $\{w : w \text{ contains neither the substrings } ab \text{ nor } ba.\}$

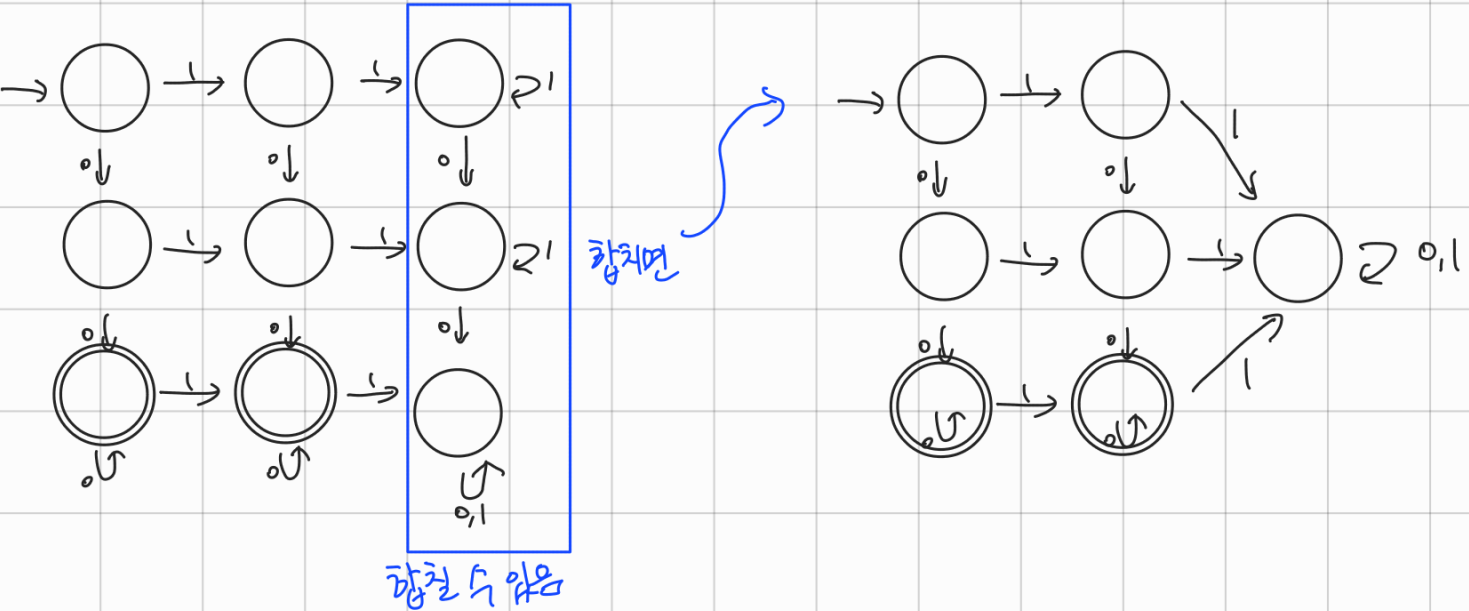


1.5(g) $\{w : w \text{ is any string that doesn't contain exactly two a's.}\}$



C. $\Sigma = \{0, 1\}$ 일 때 다음 언어를 인식하는 DFA의 State diagram을 그리시오.

1.6(j) $\{w : w \text{ contains at least two 0s and at most one 1.}\}$



1.6(l) $\{w : w \text{ contains an even number of 0s, or contains exactly two 1s.}\}$

