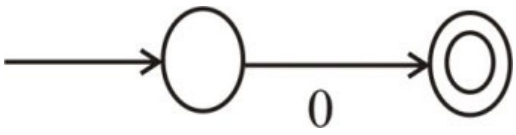
获得的答案 **返回**

a. Consider the regular expression $R=(0\cup1)^*000(0\cup1)^*$.

Now, construct an NFA from this regular expression in the following procedure:

0



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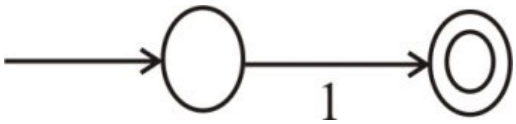
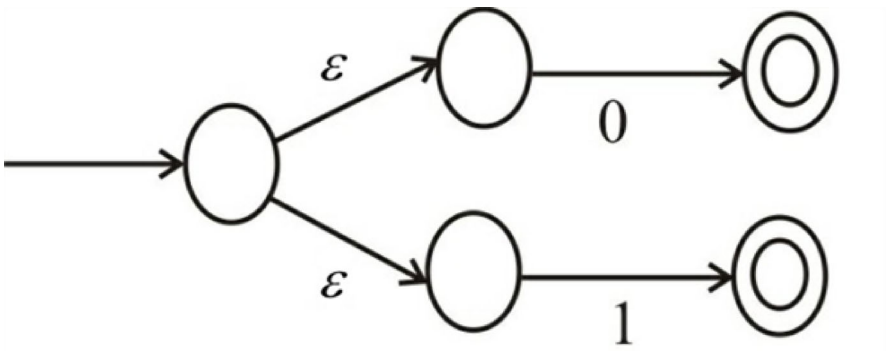
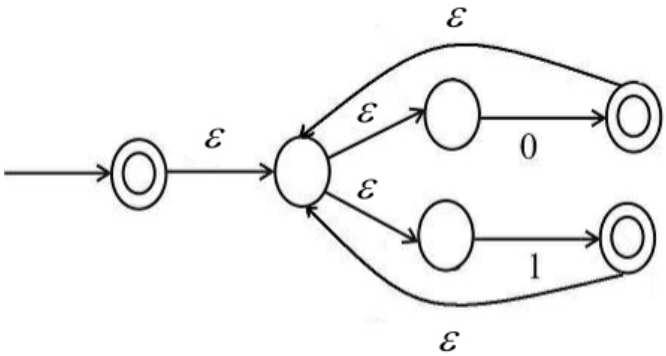


$0\cup1$



$(0\cup1)^*$



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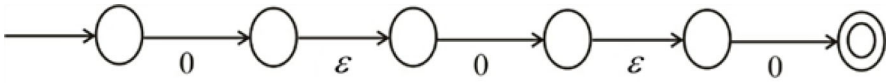
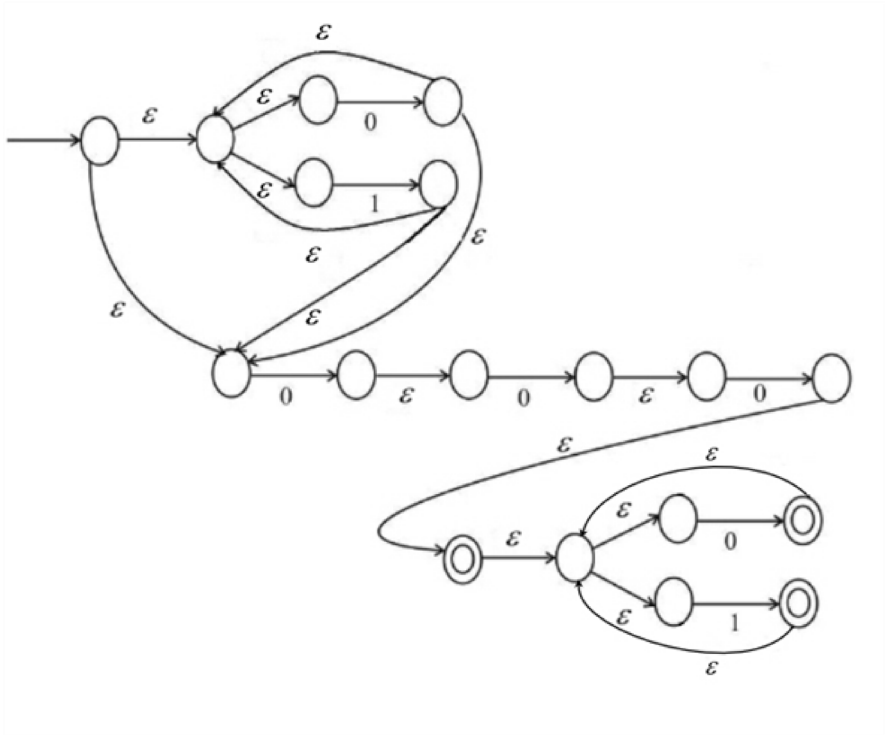


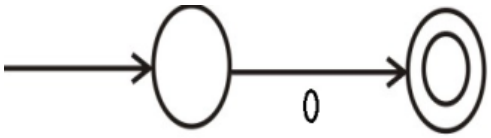
$(0\cup1)^*000(0\cup1)^*$



b. Consider the regular expression $R = \left(\left((00)^*(11)\right) \cup 01\right)^*$.

Now, construct the NFA from this regular expression in the following procedure:

0



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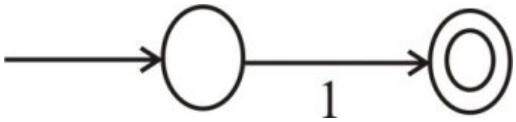

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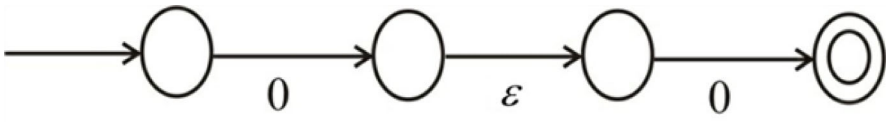
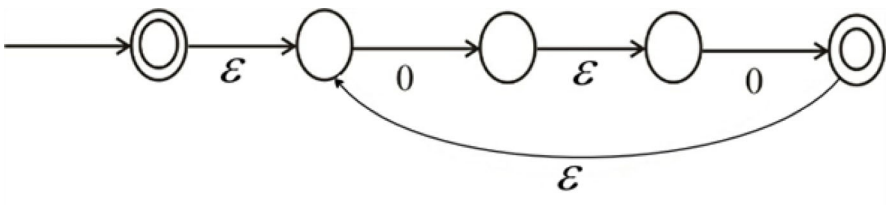
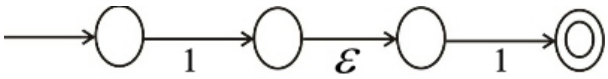


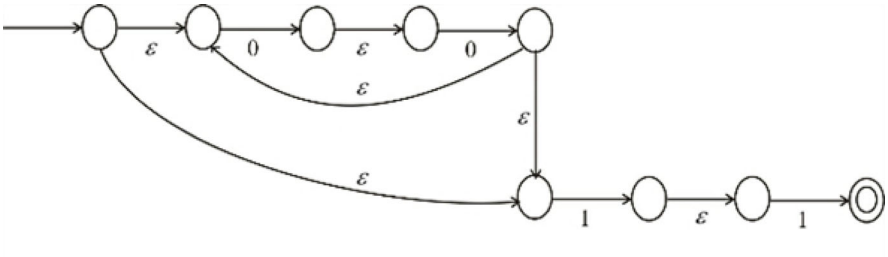
$(00)^*$



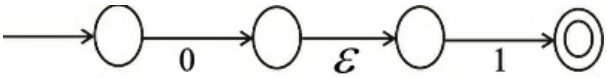
11



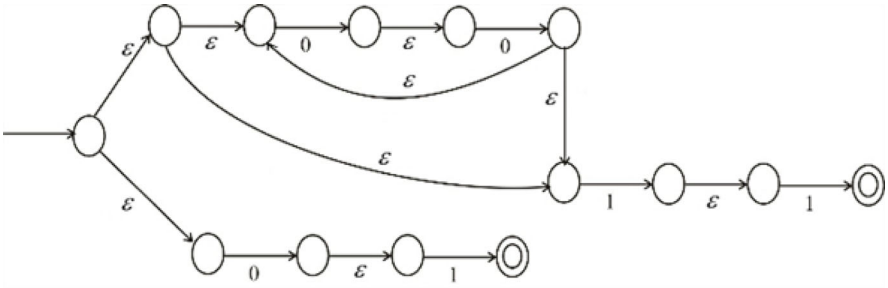
$(00)^*11$



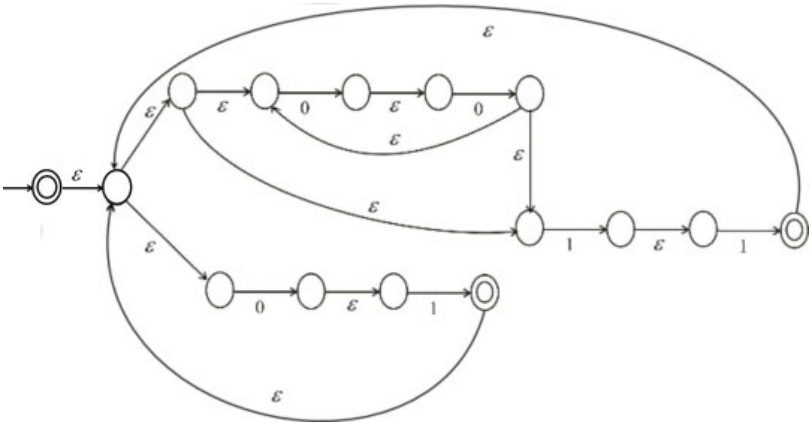
01



$(((00)*(11))\cup(01))$



$(((00)*(11))\cup(01))*$



c. Consider the regular expression $R = \phi*$.

The closure of an empty set is an empty string i.e., $\phi* = \{\varepsilon\}$. The NFA for the regular expression is as follows: