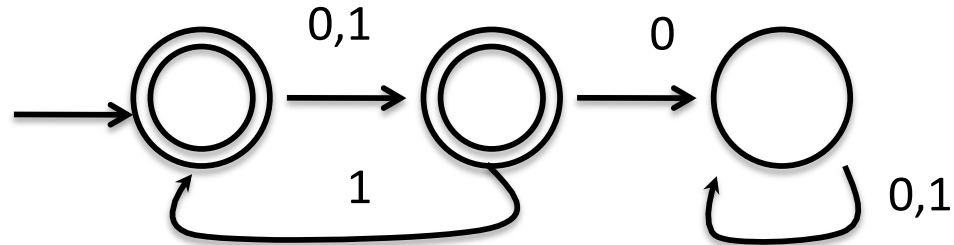
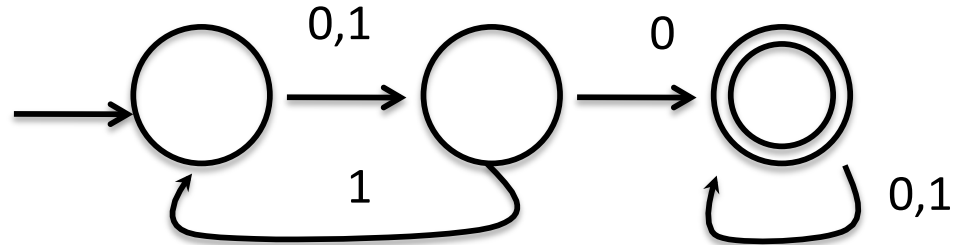


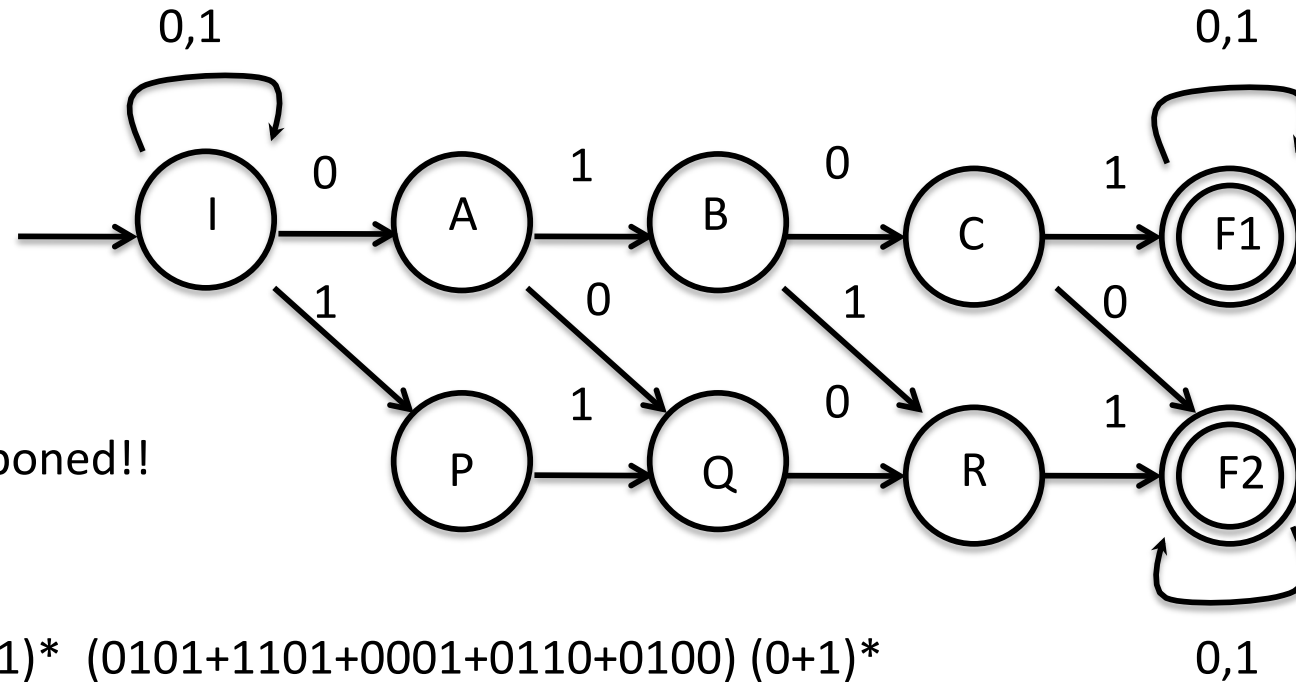
Ans for 7,9



Ans for 8,10



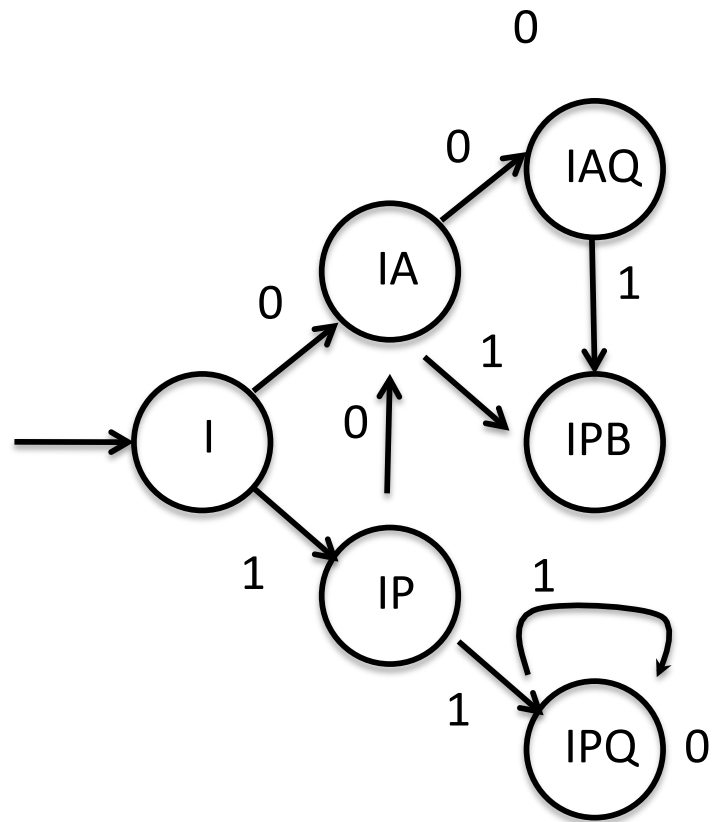
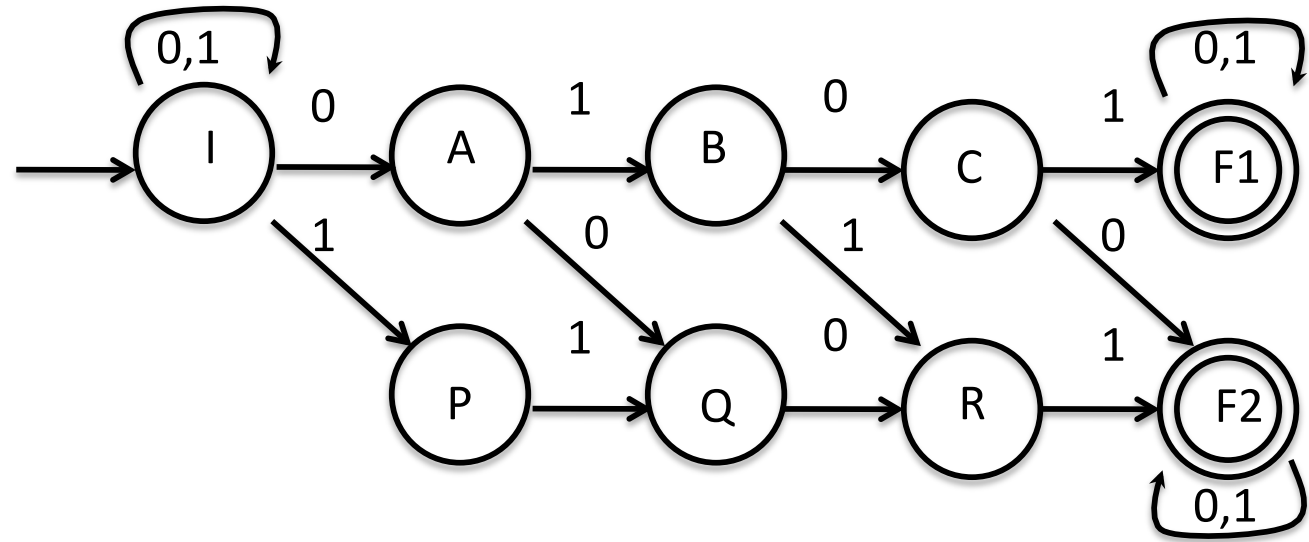
Ans for 11

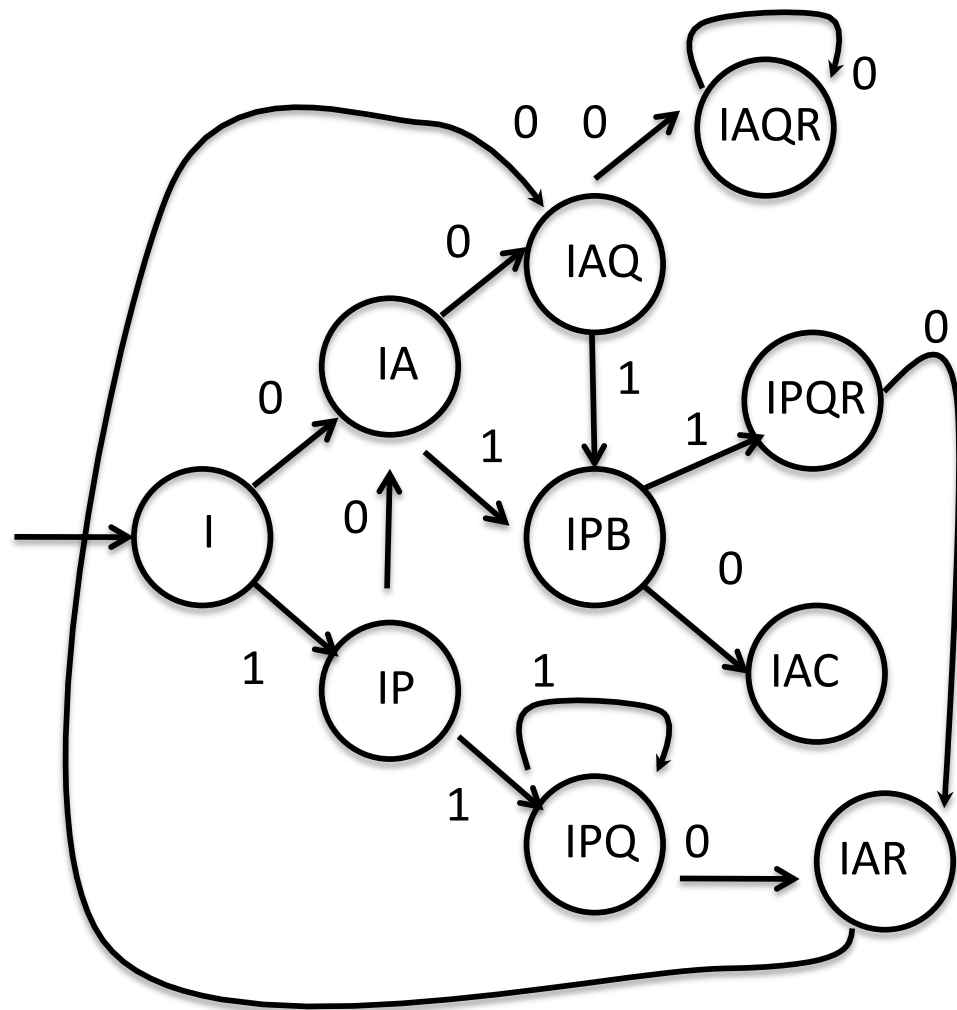
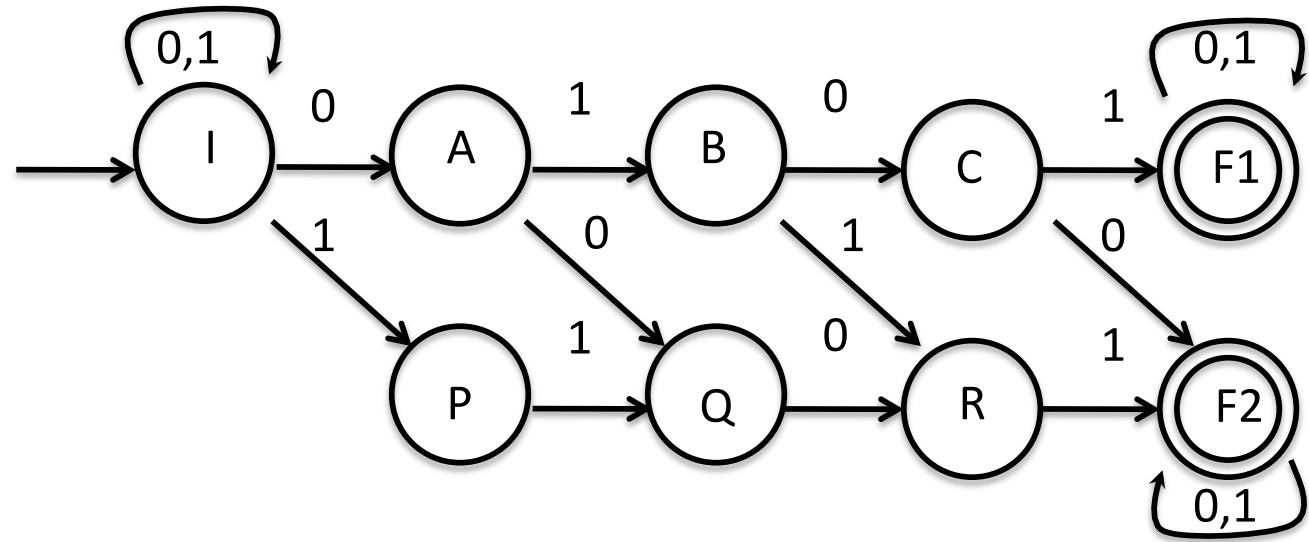


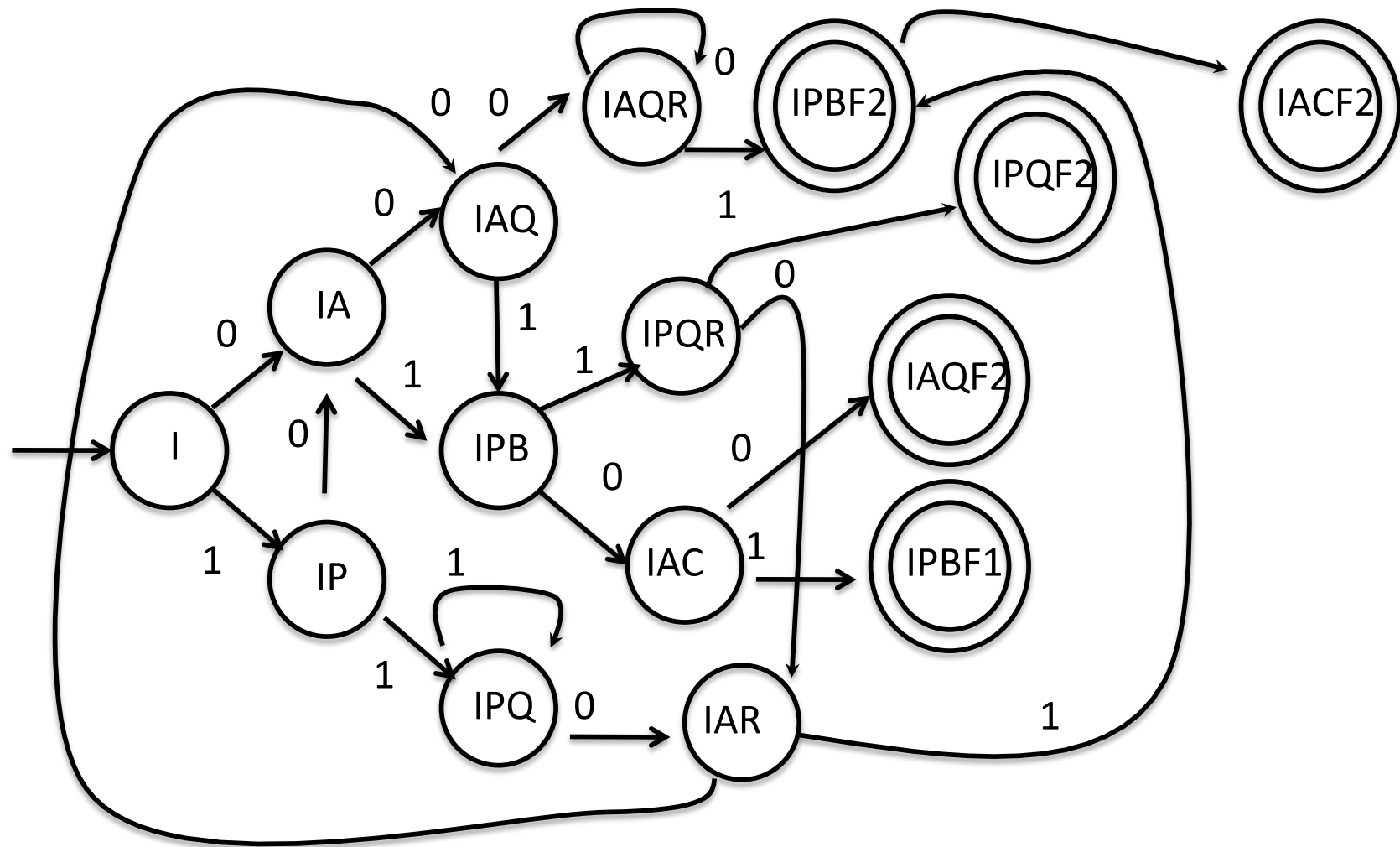
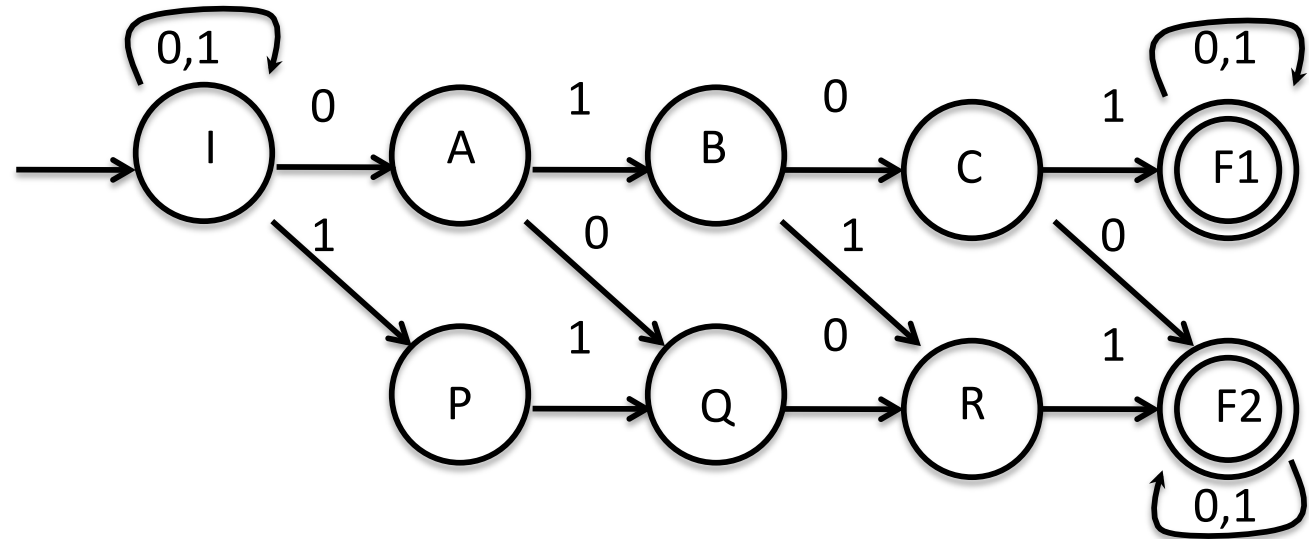
Ans for 15:postponed!!

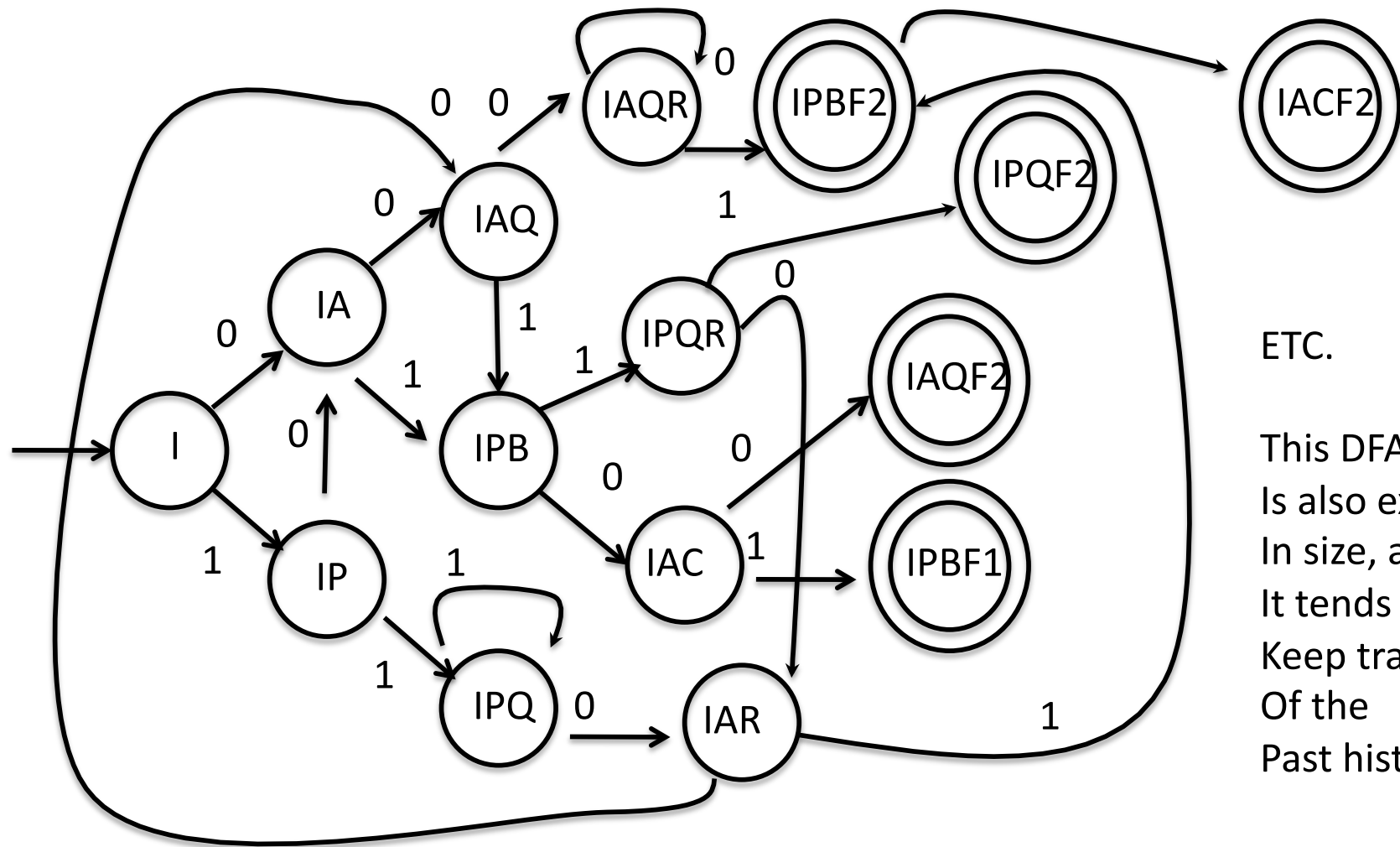
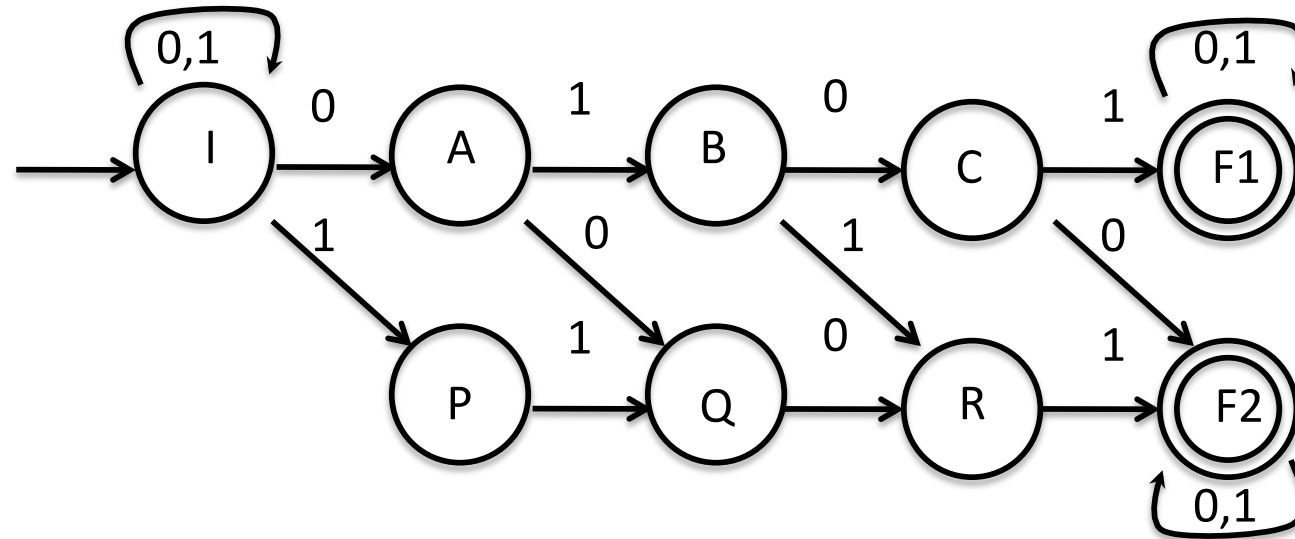
Ans for 12 : $(0+1)^* (0101+1101+0001+0110+0100) (0+1)^*$

Ans for 13 : Can obtain using JFLAP. Also see the following.



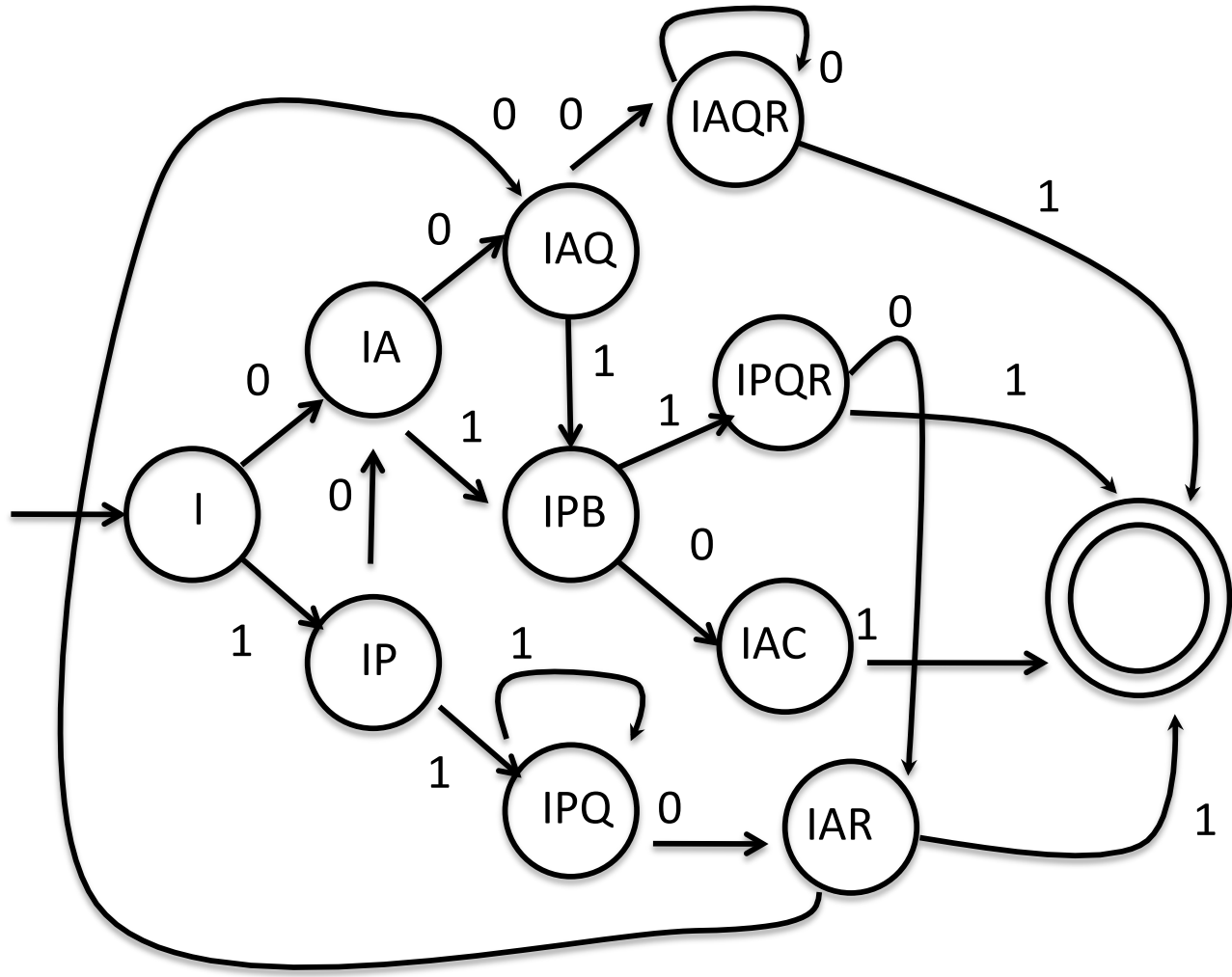




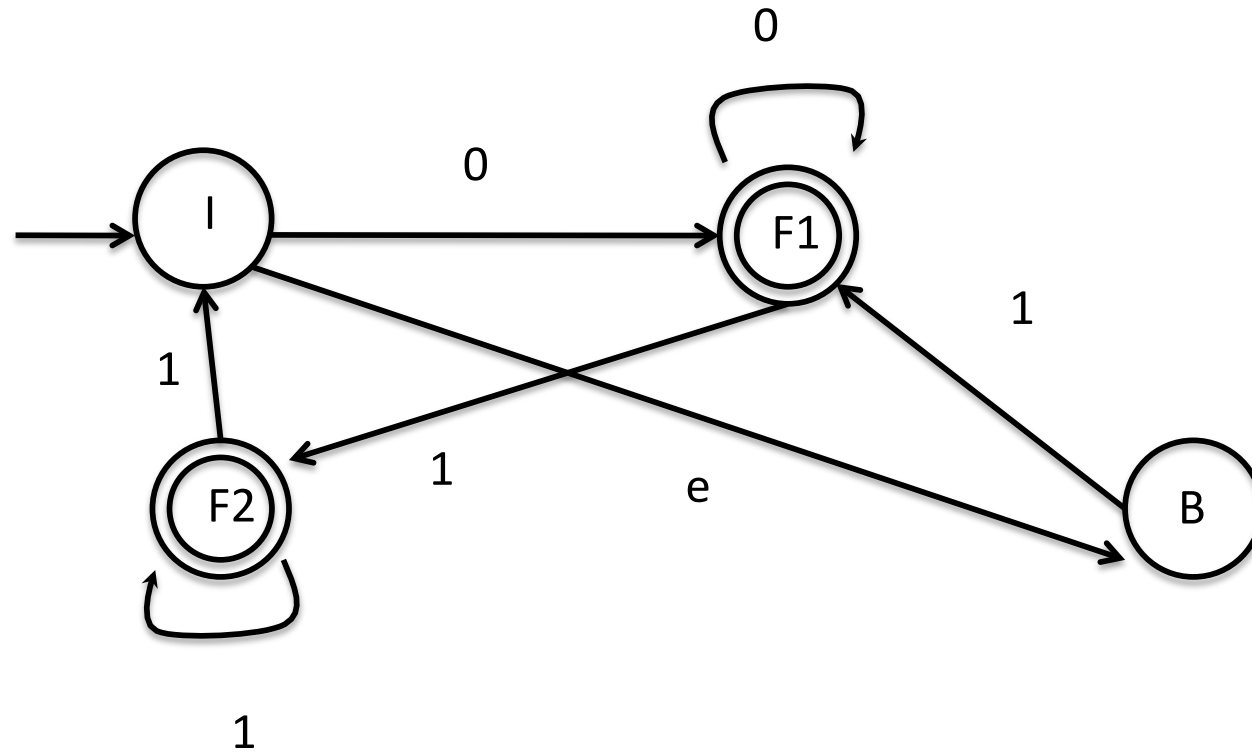


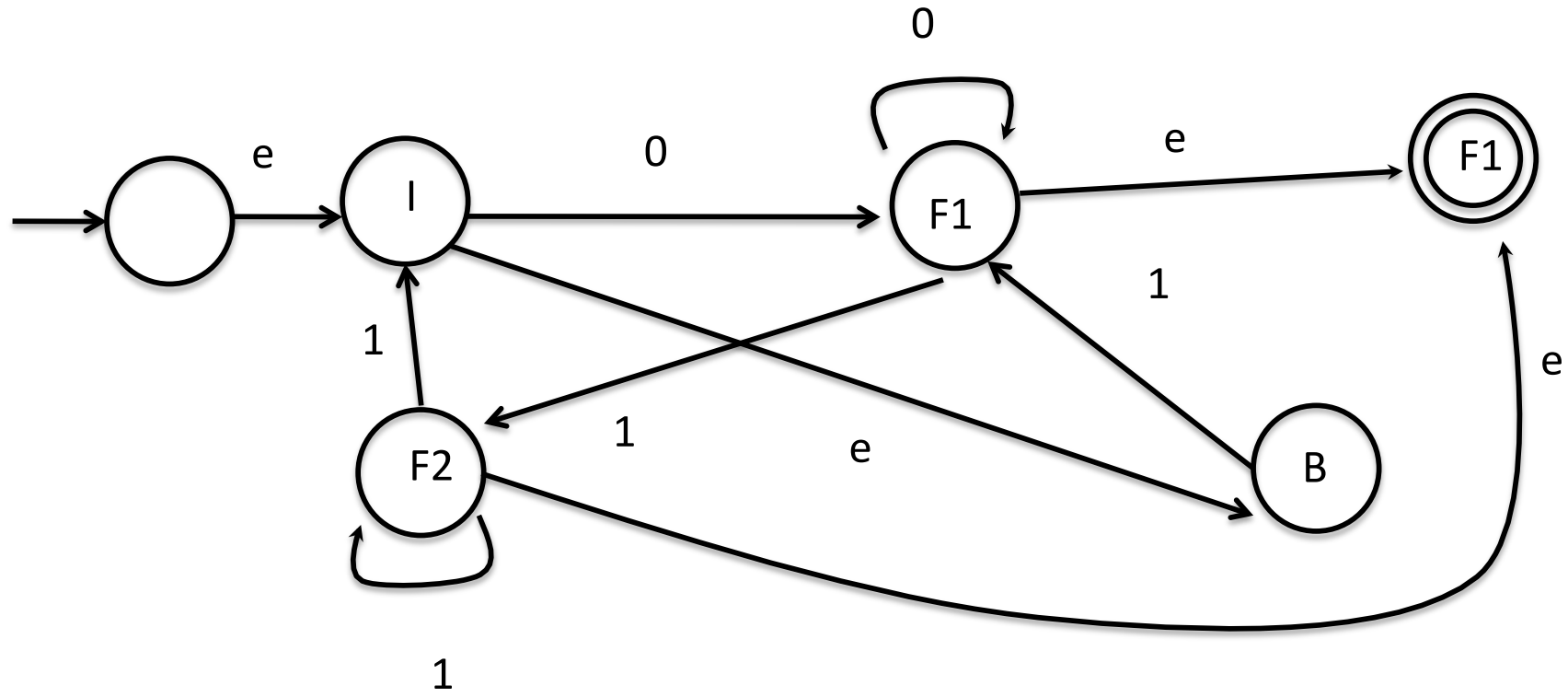
ETC.

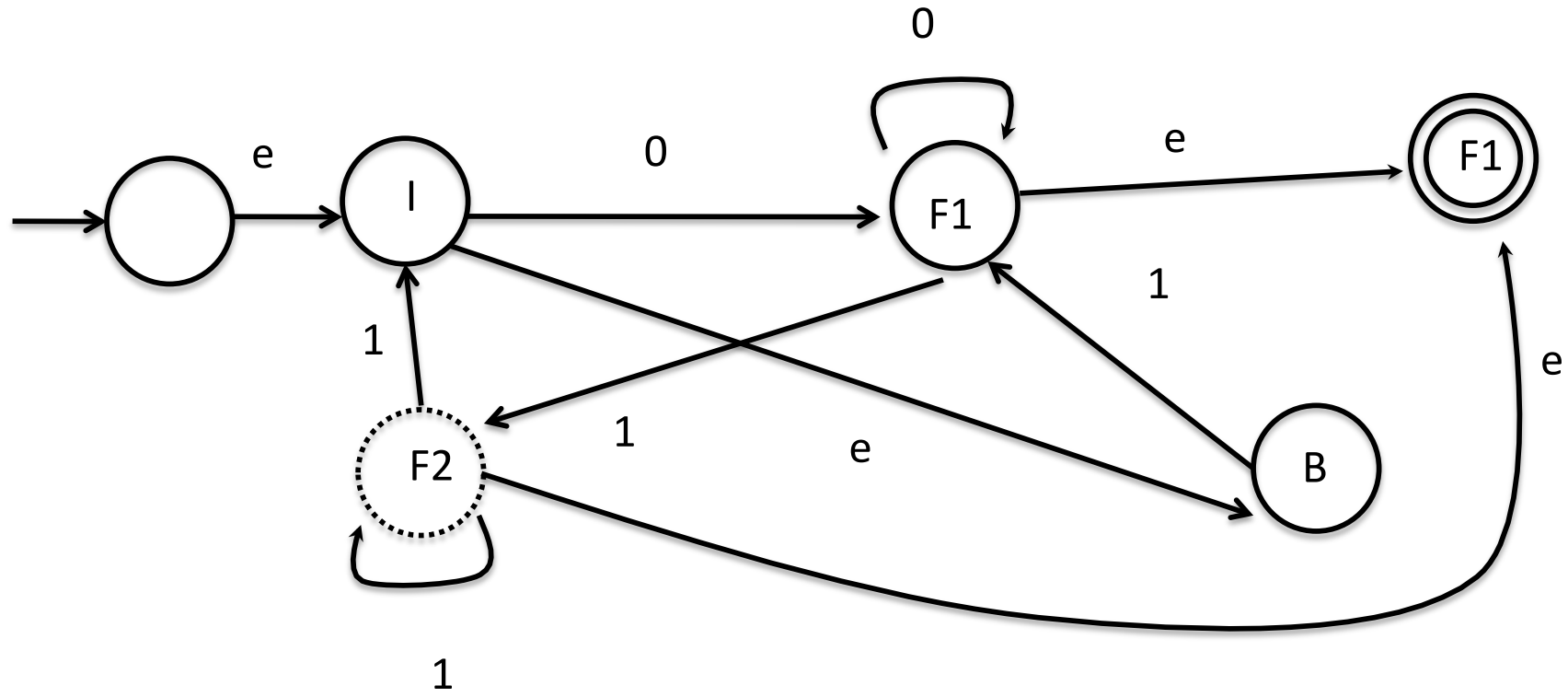
This DFA
Is also exp.
In size, as
It tends to
Keep track
Of the
Past history

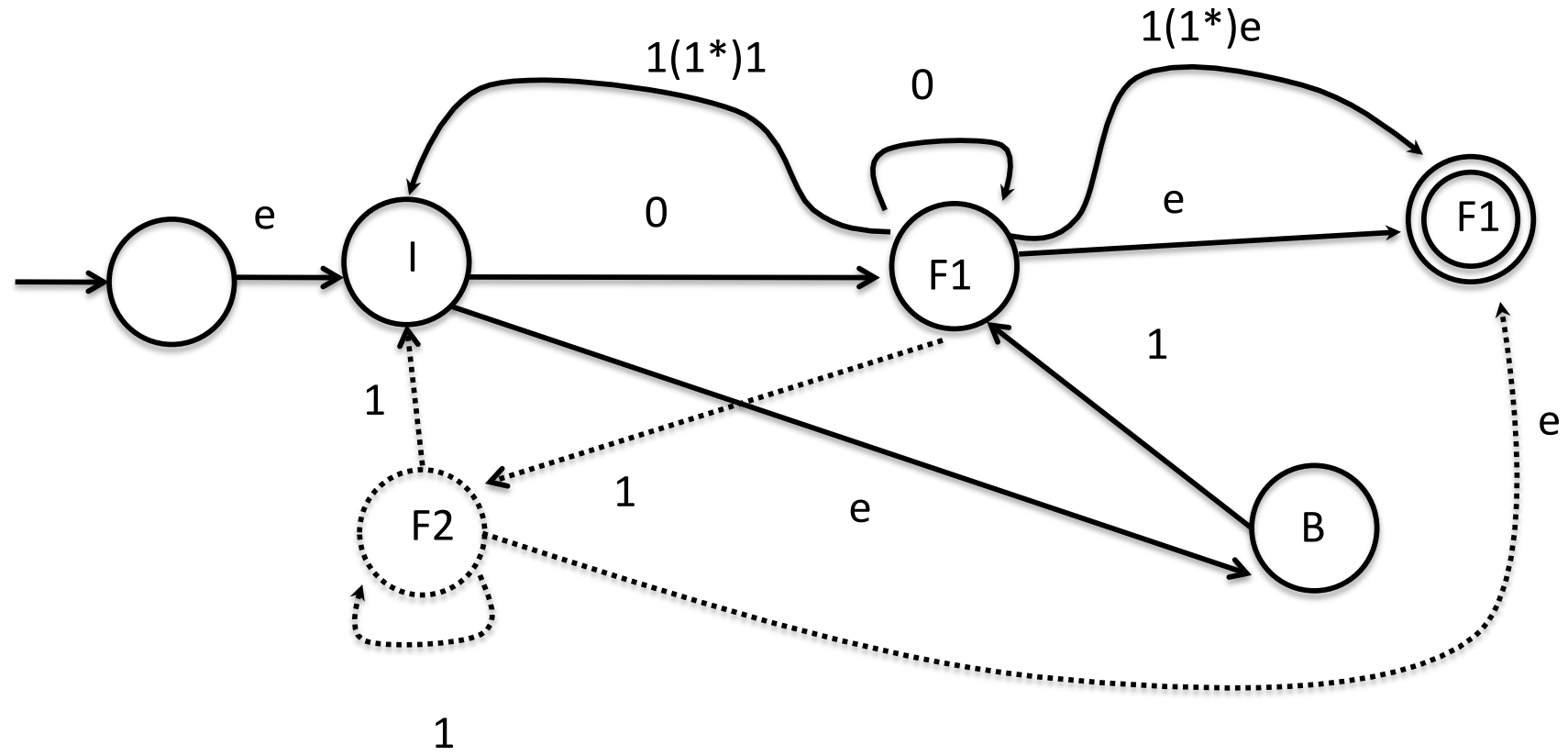


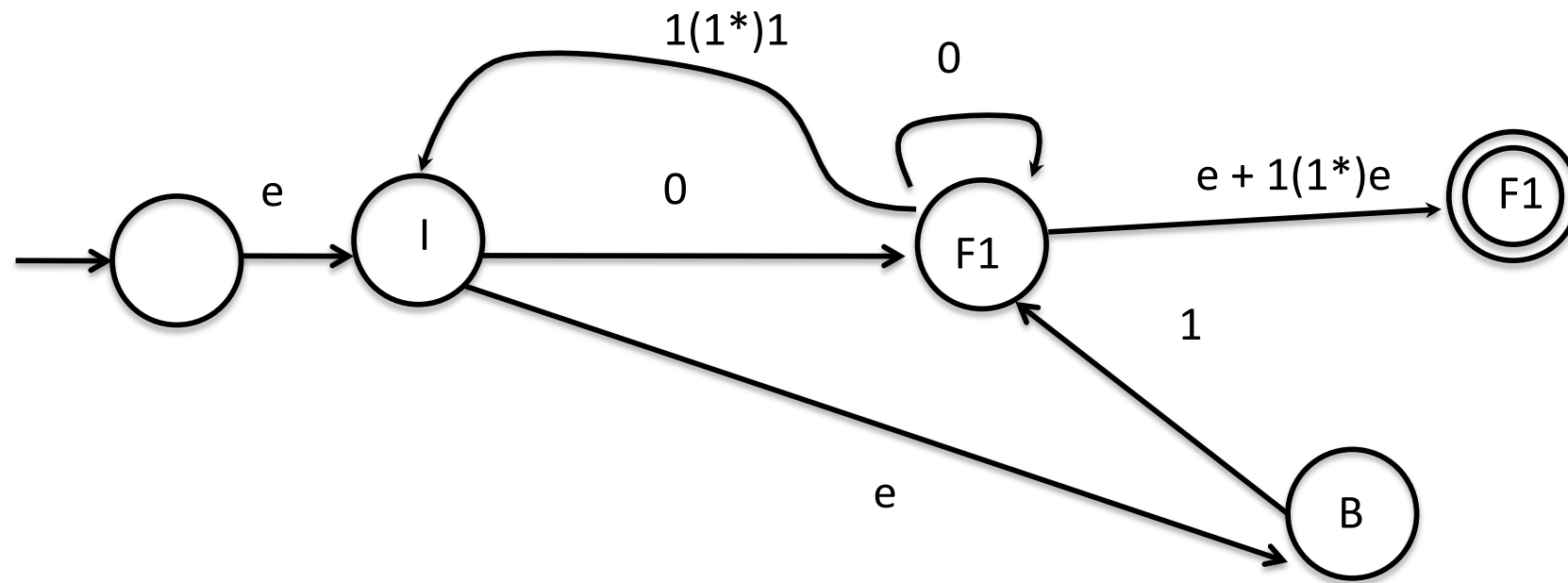
NFA to RE

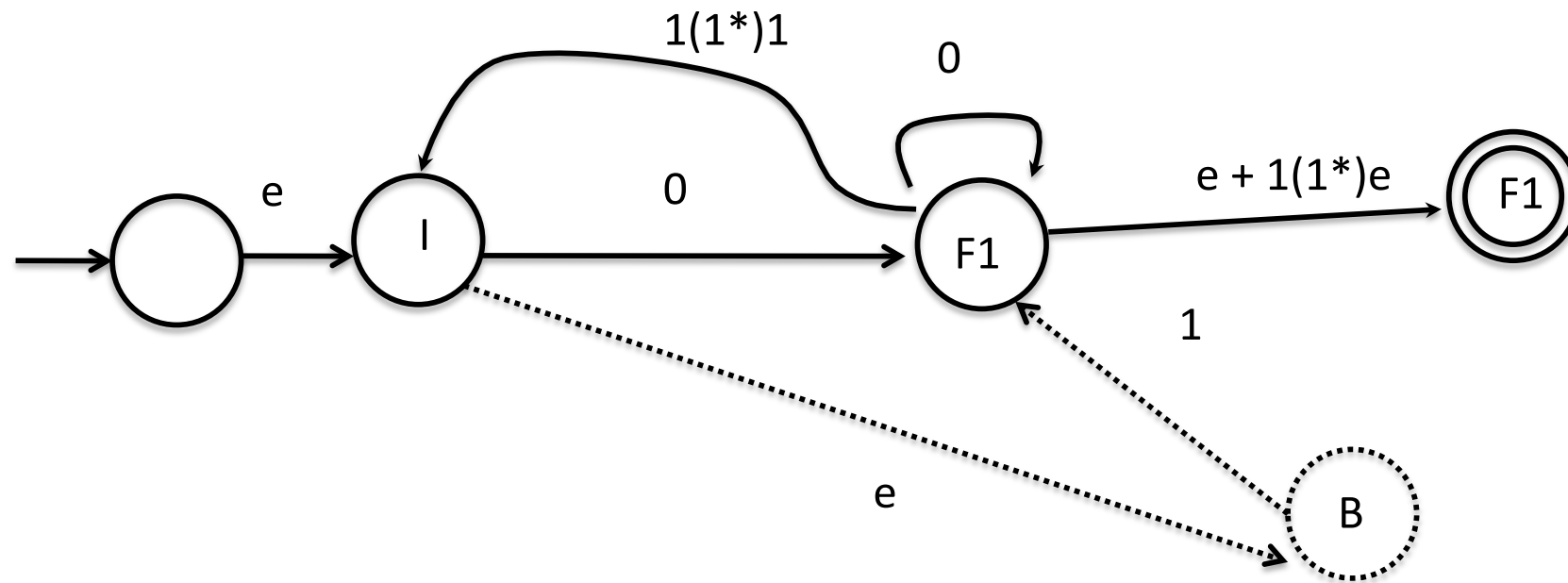


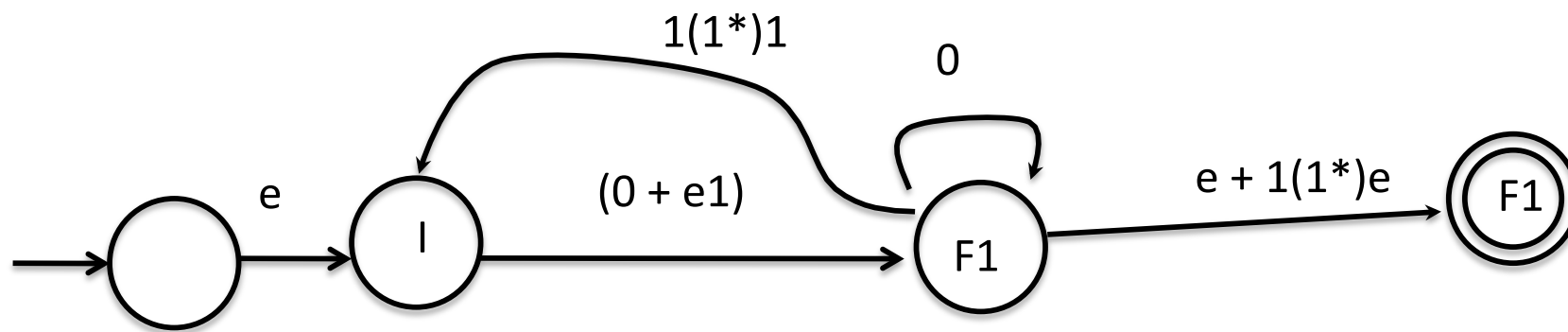


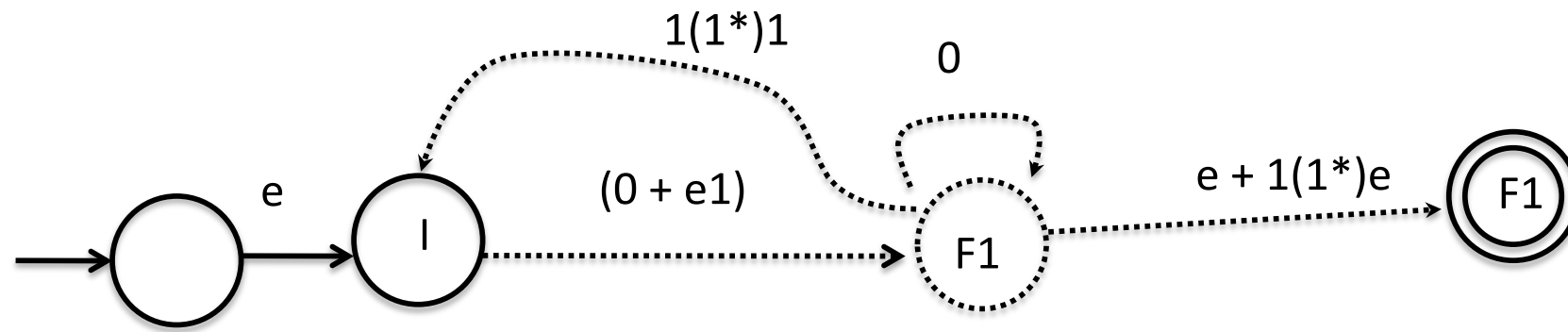


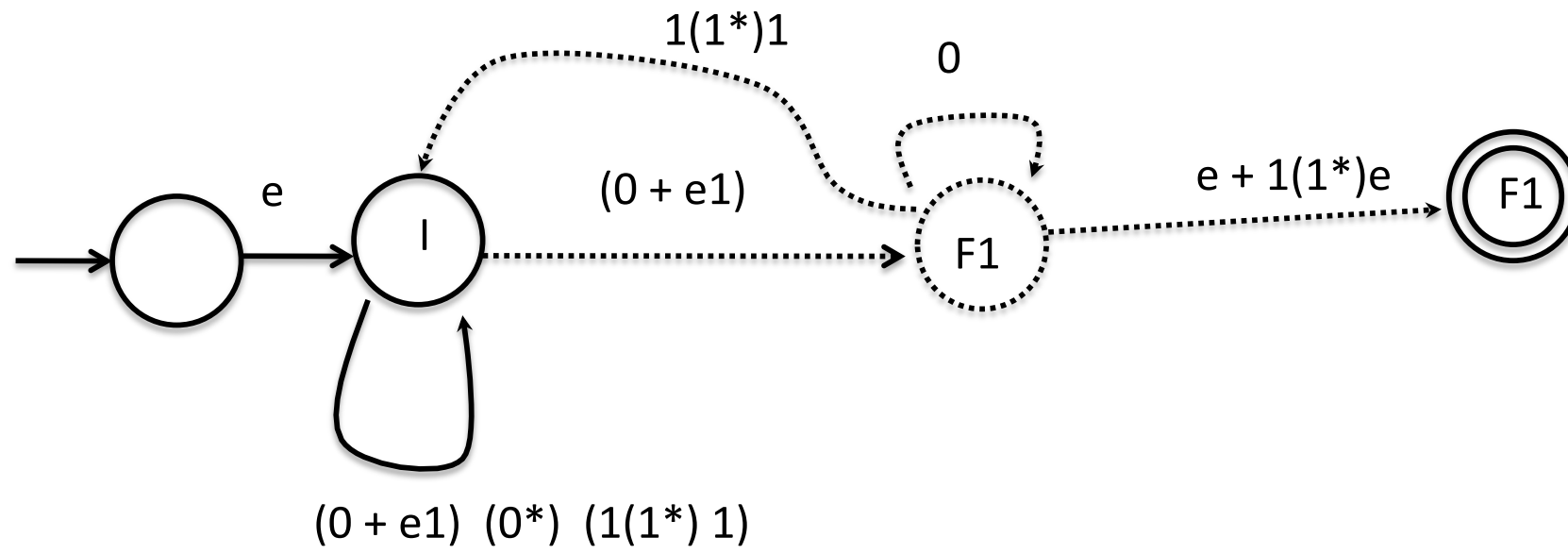


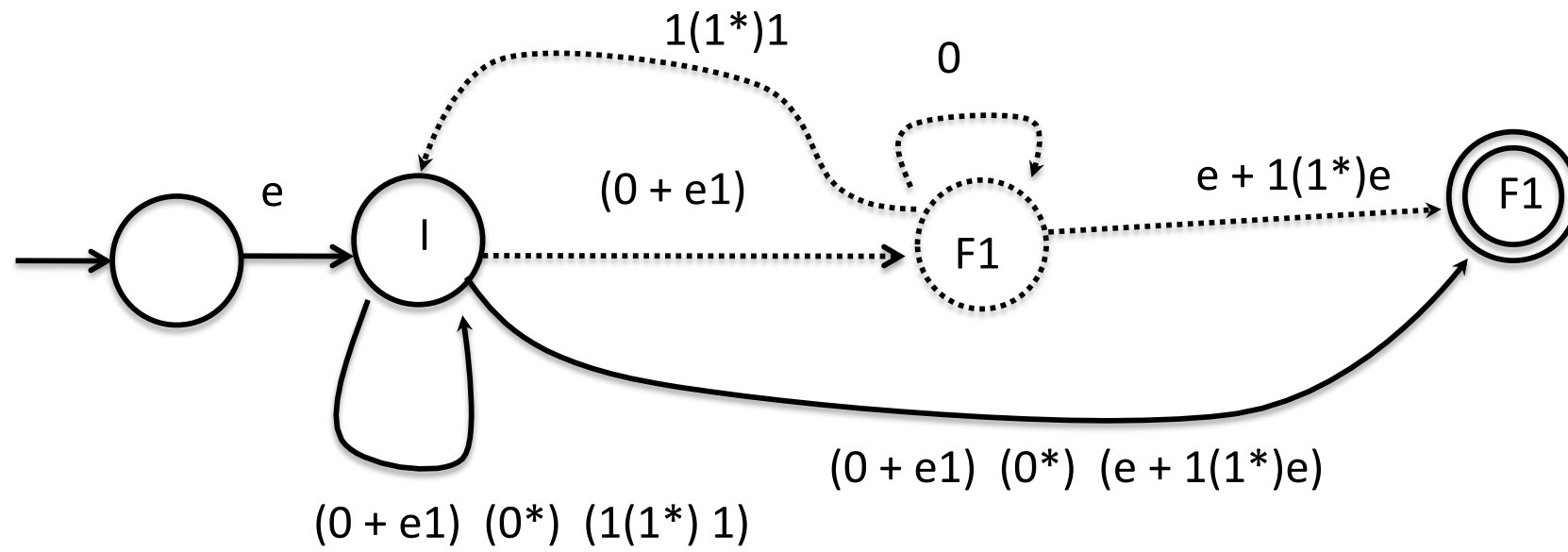


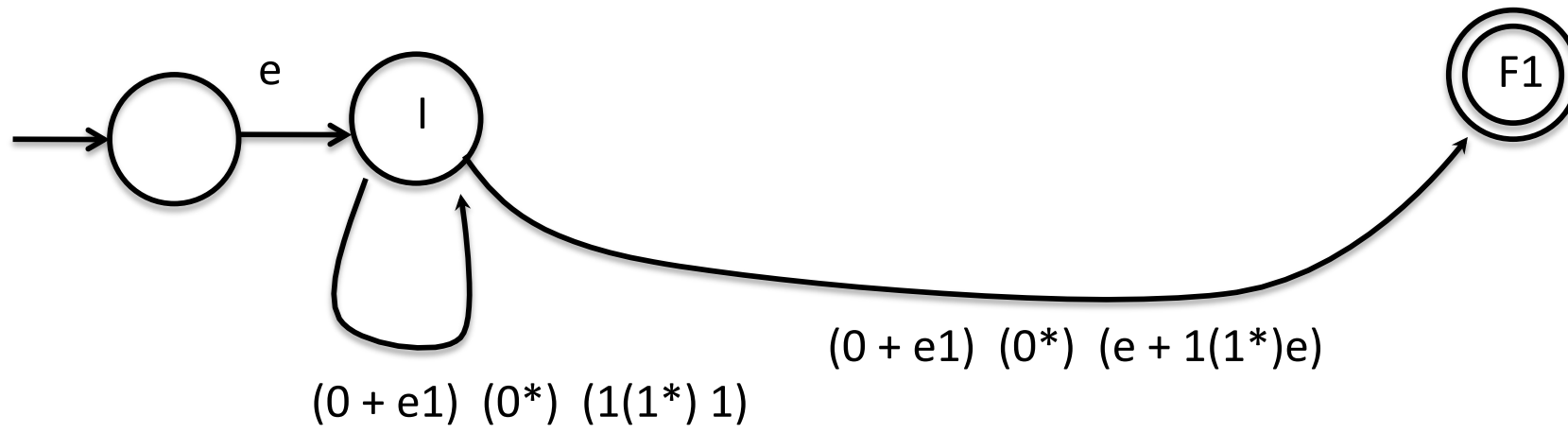


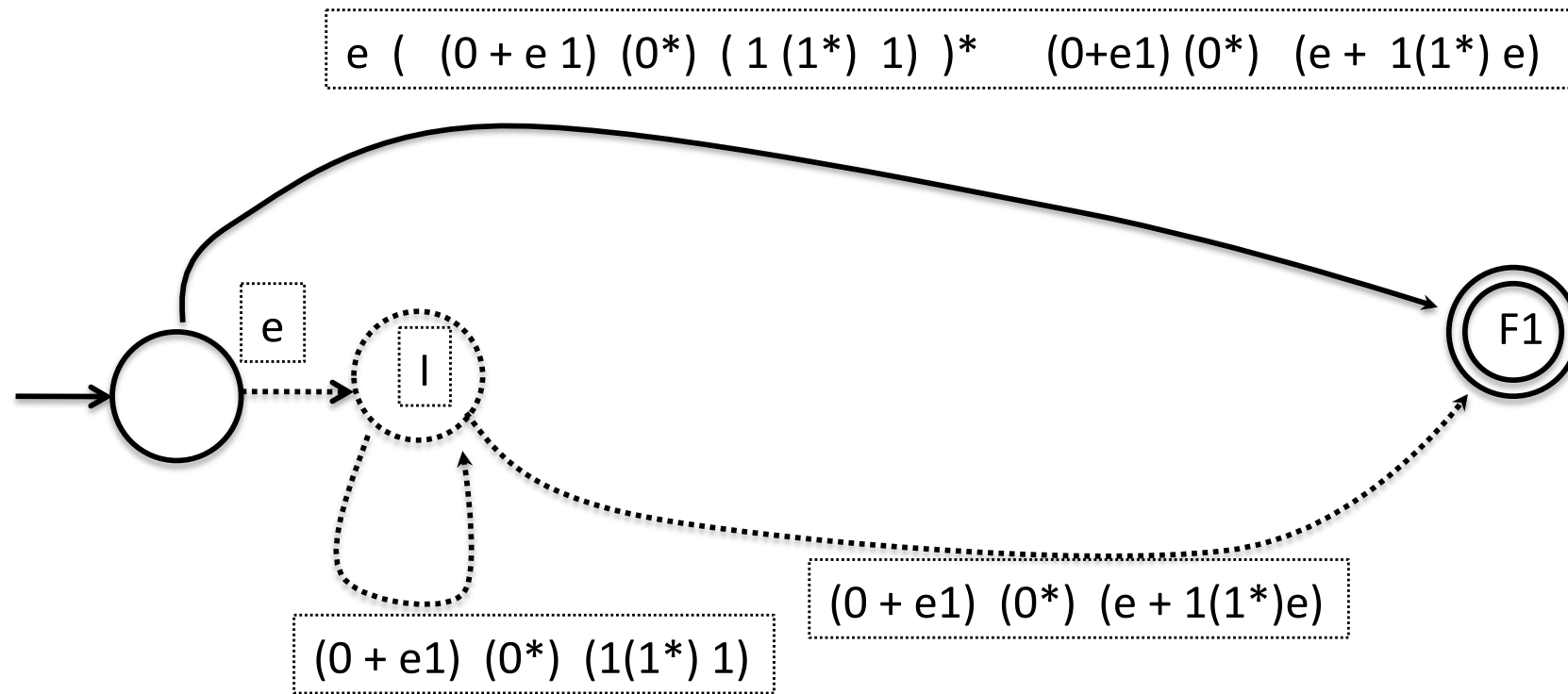




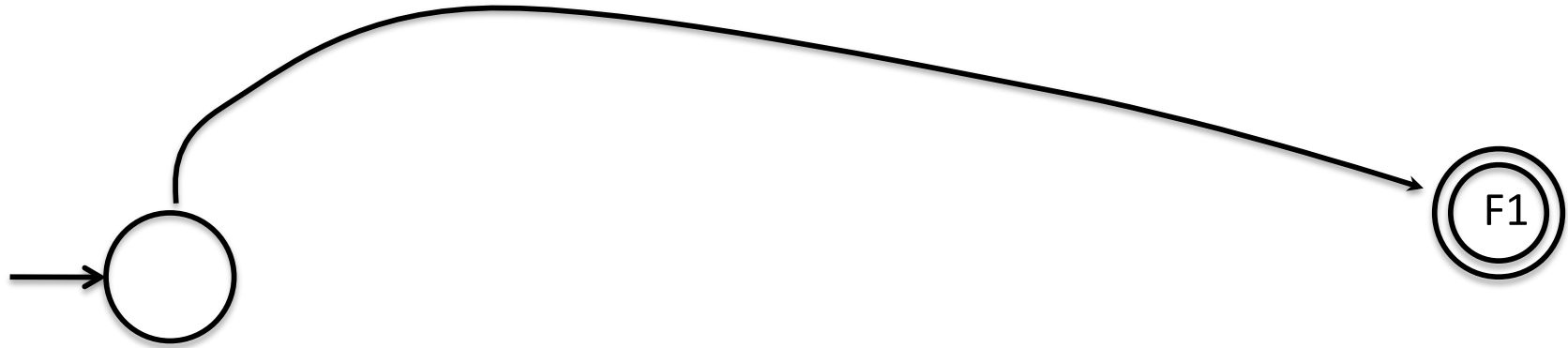


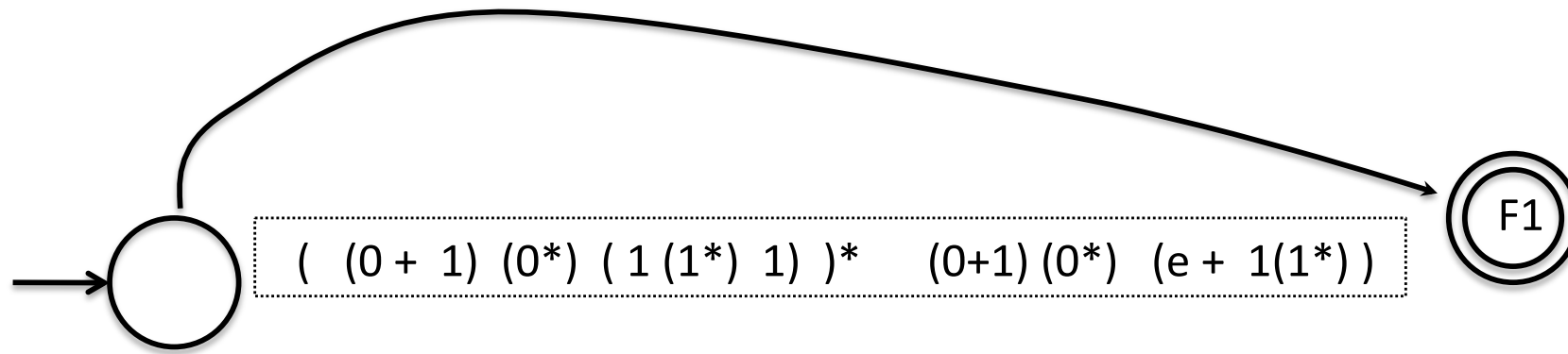






$e ((0 + e 1) (0^*) (1 (1^*) 1))^* (0 + e 1) (0^*) (e + 1(1^*) e)$

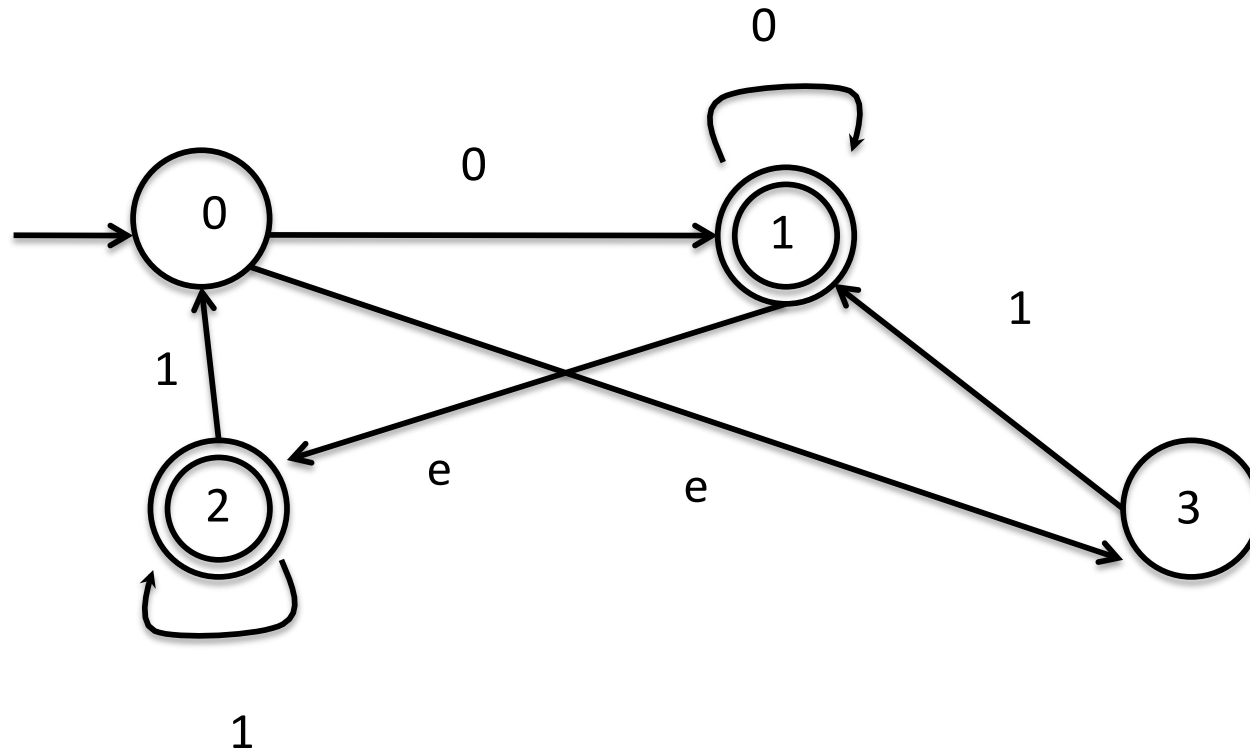




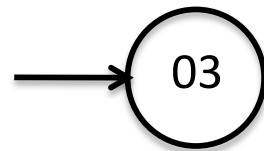
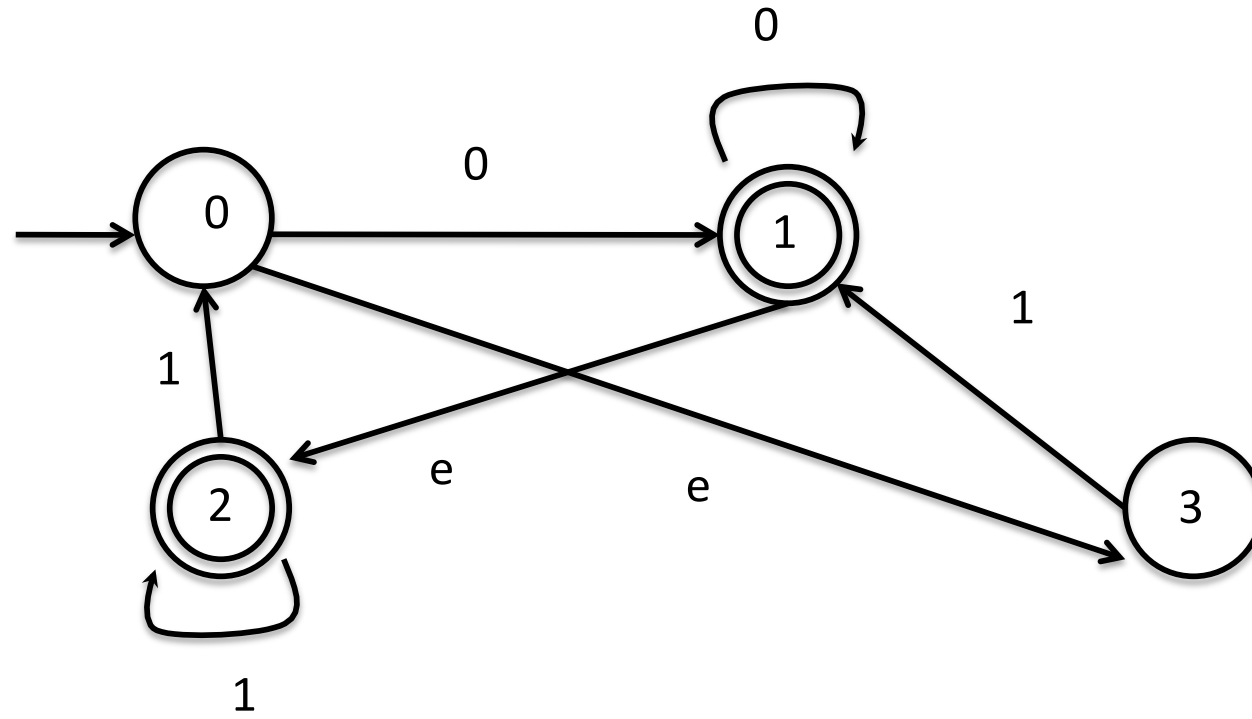
NFA to DFA :

E-close beforehand to get start state

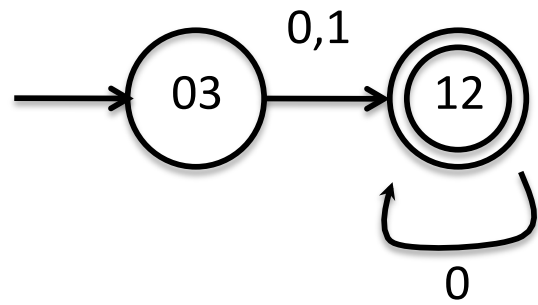
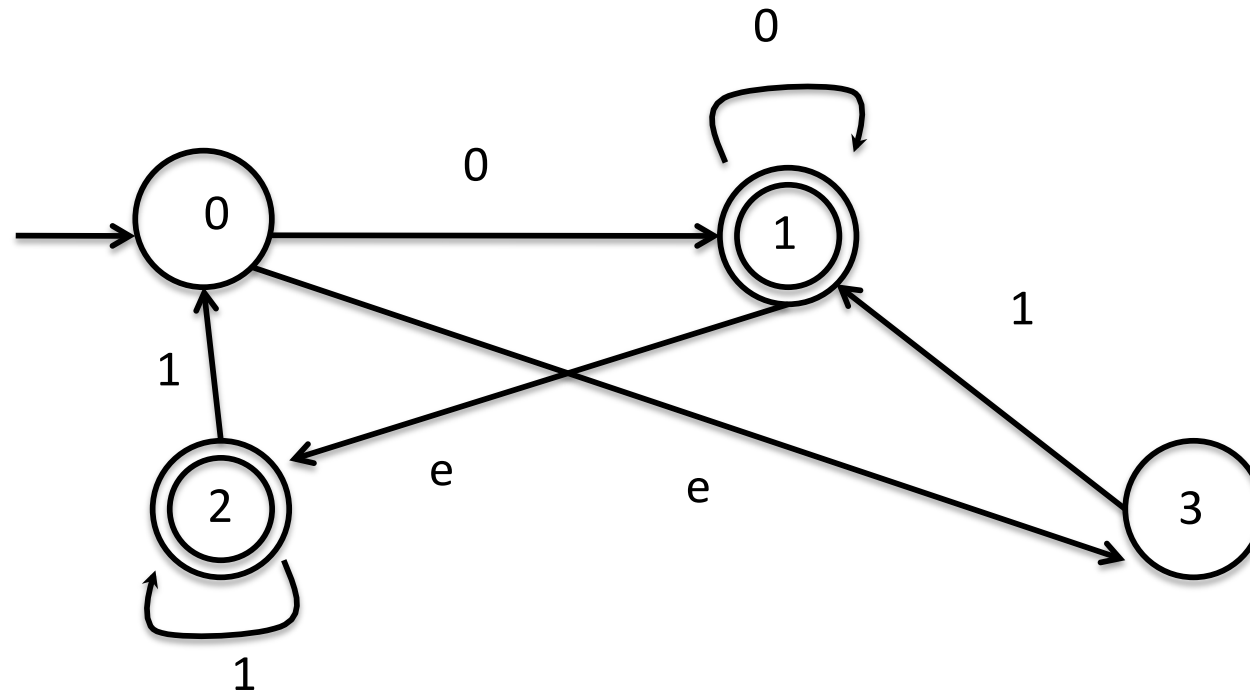
For each state, March as per 0 or 1, and E-close to get next state.



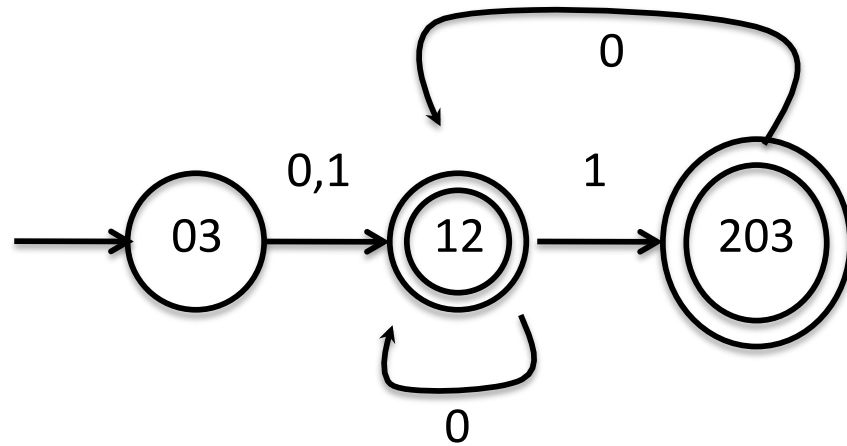
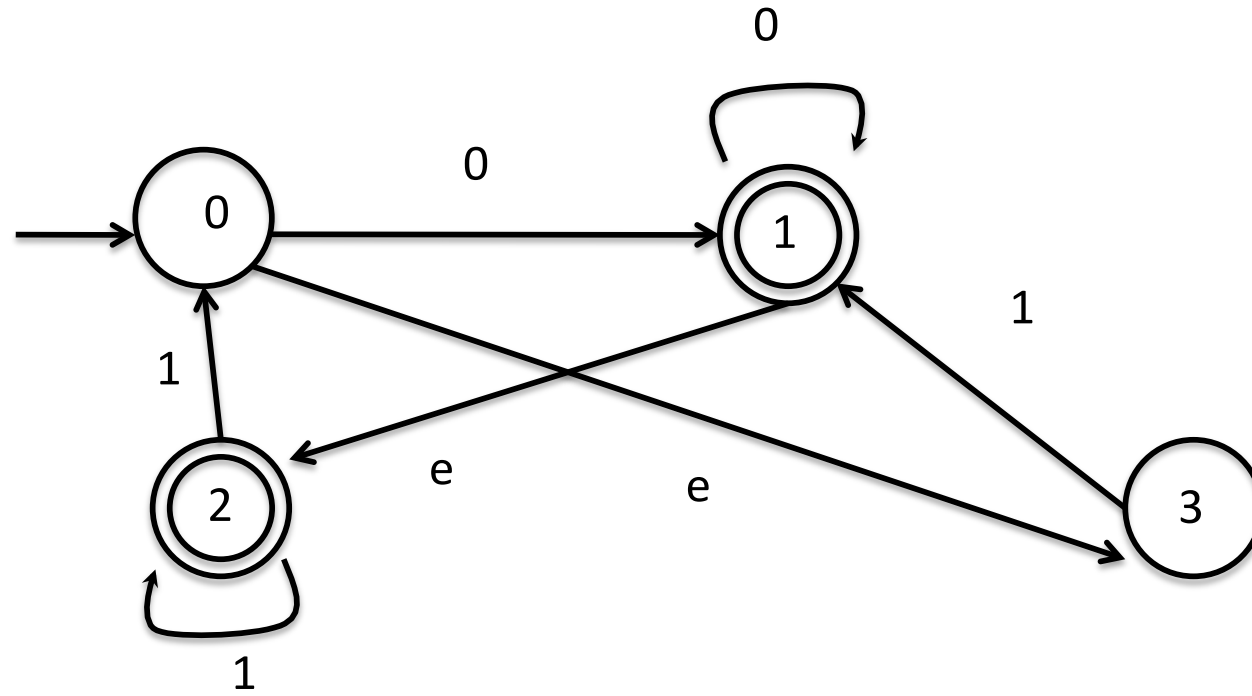
NFA to DFA :



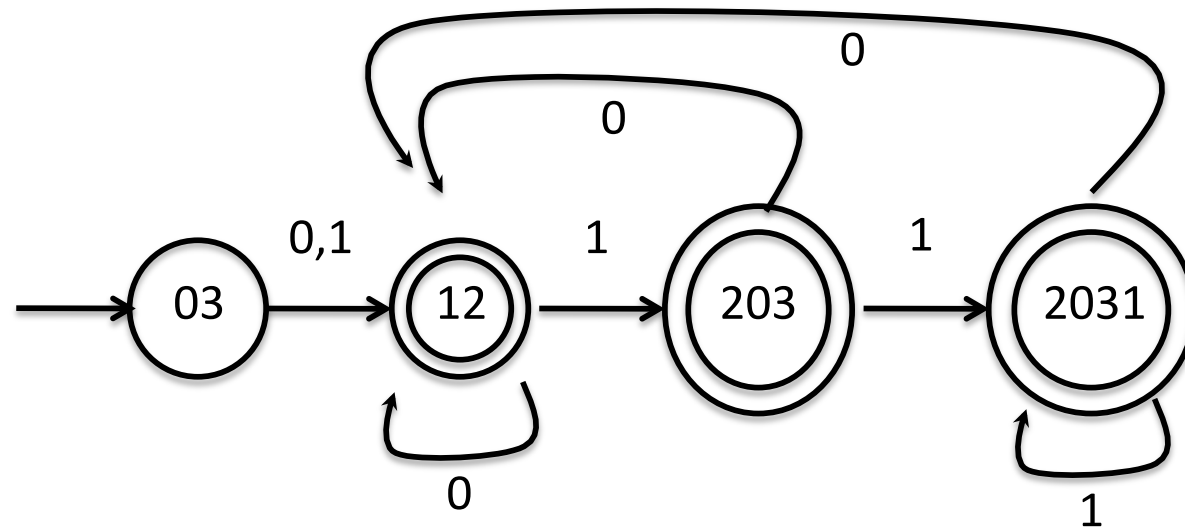
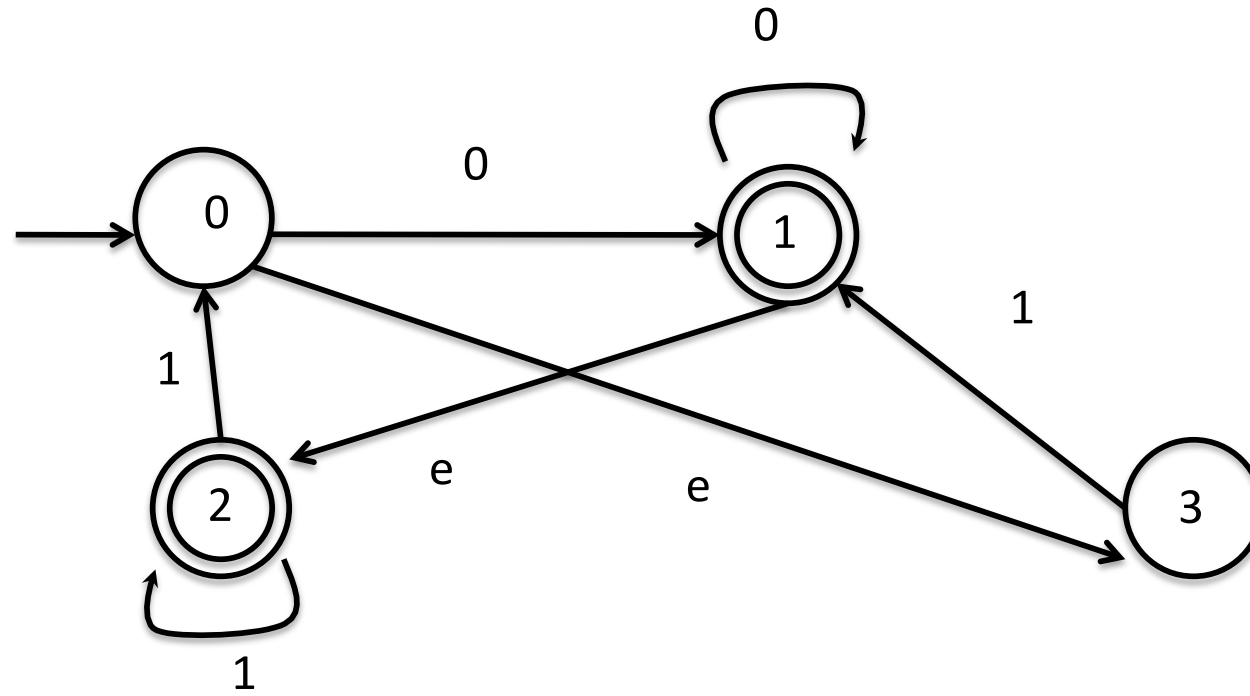
NFA to DFA :



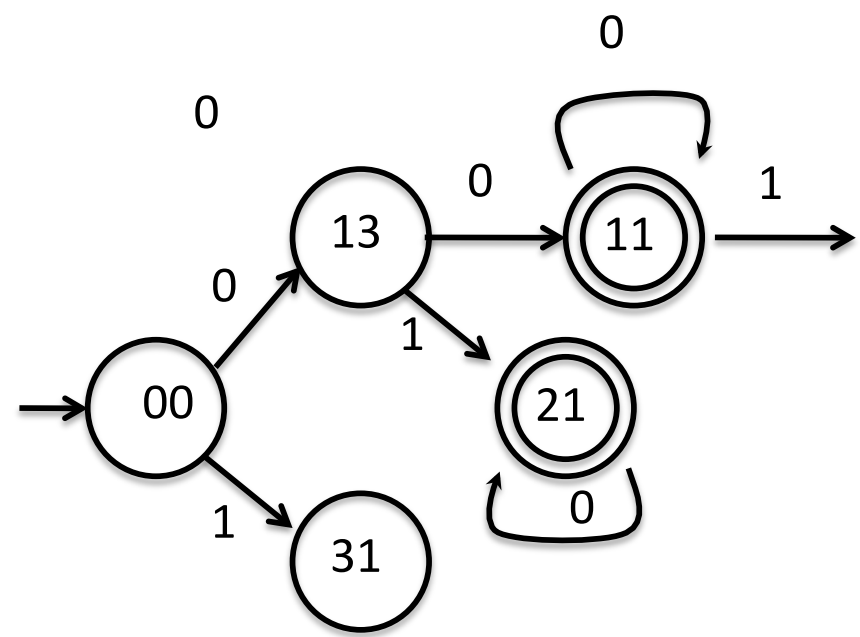
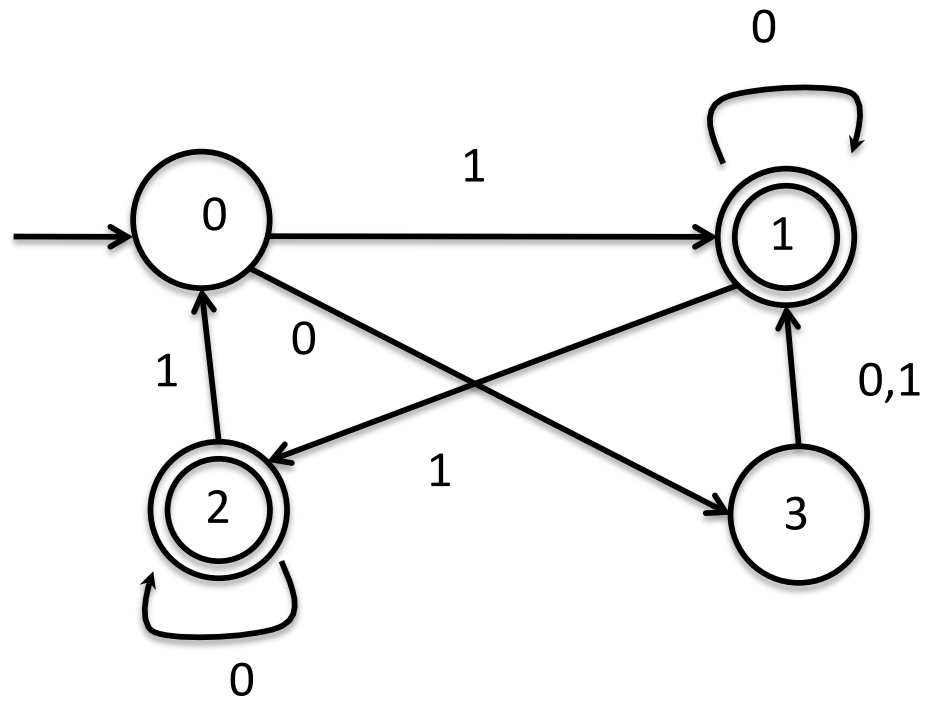
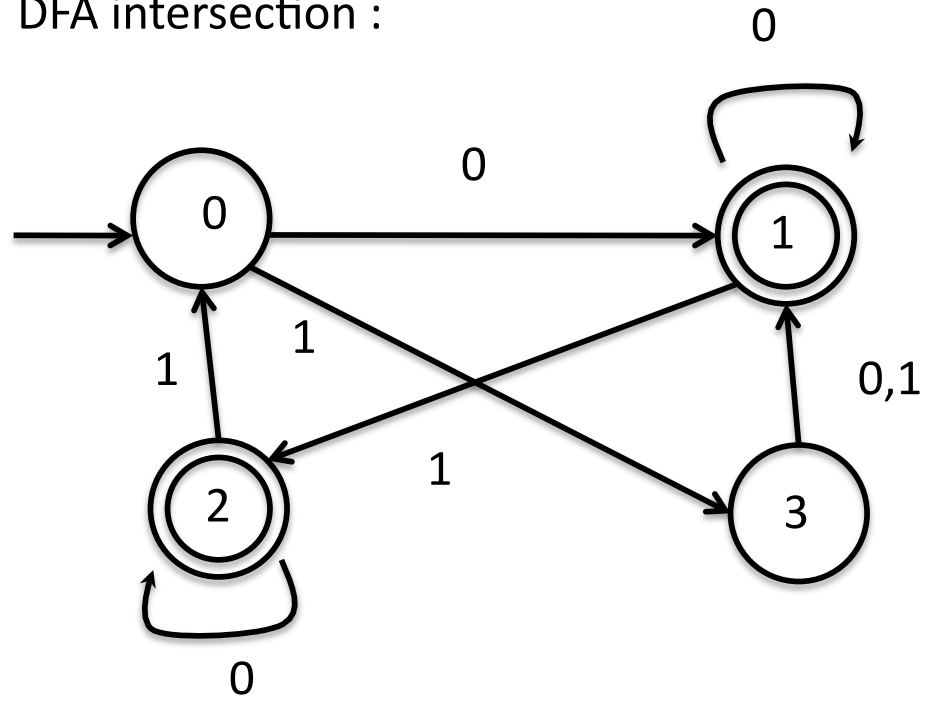
NFA to DFA :



NFA to DFA :

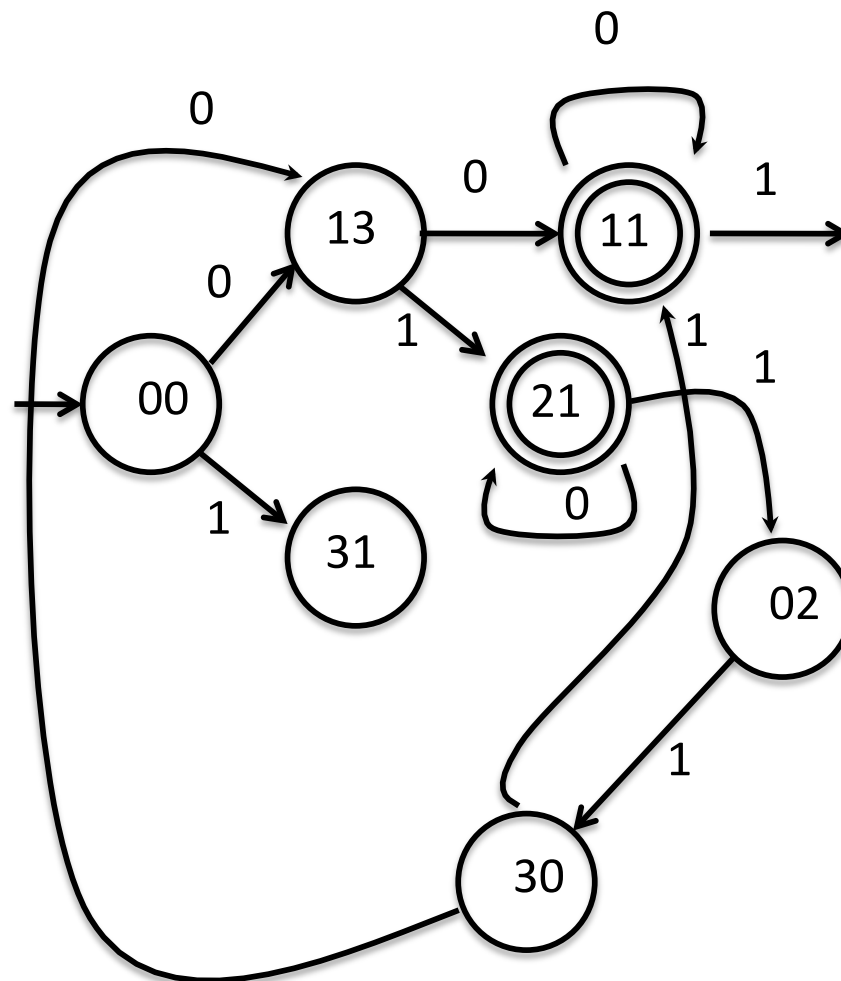
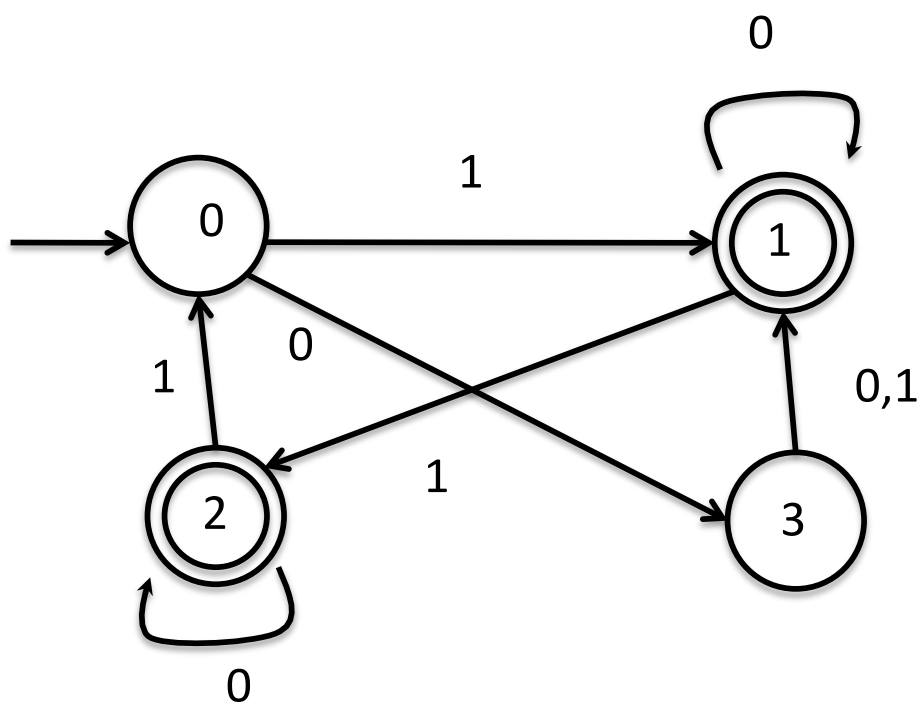
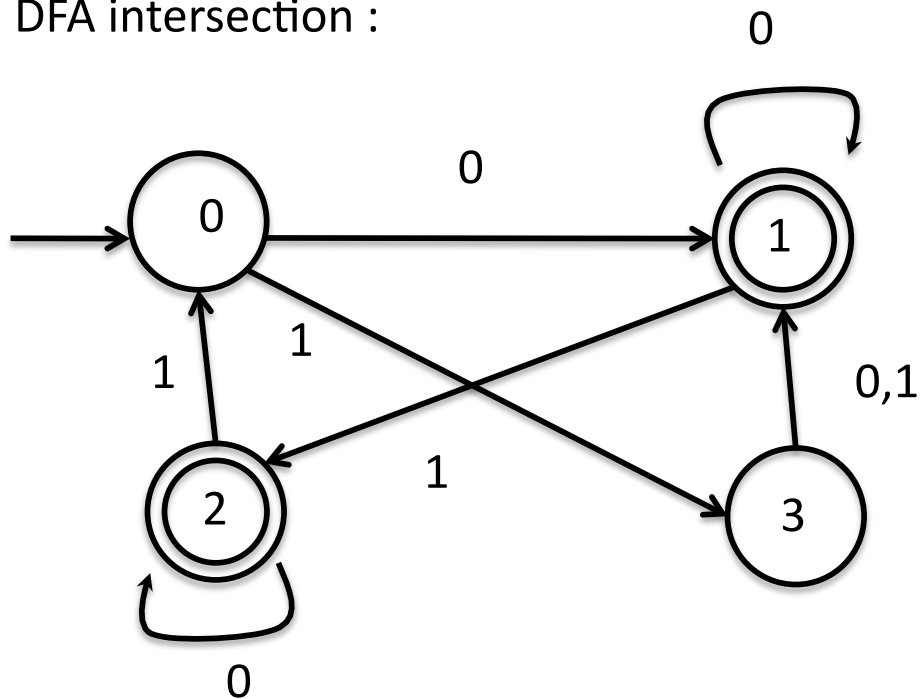


DFA intersection :



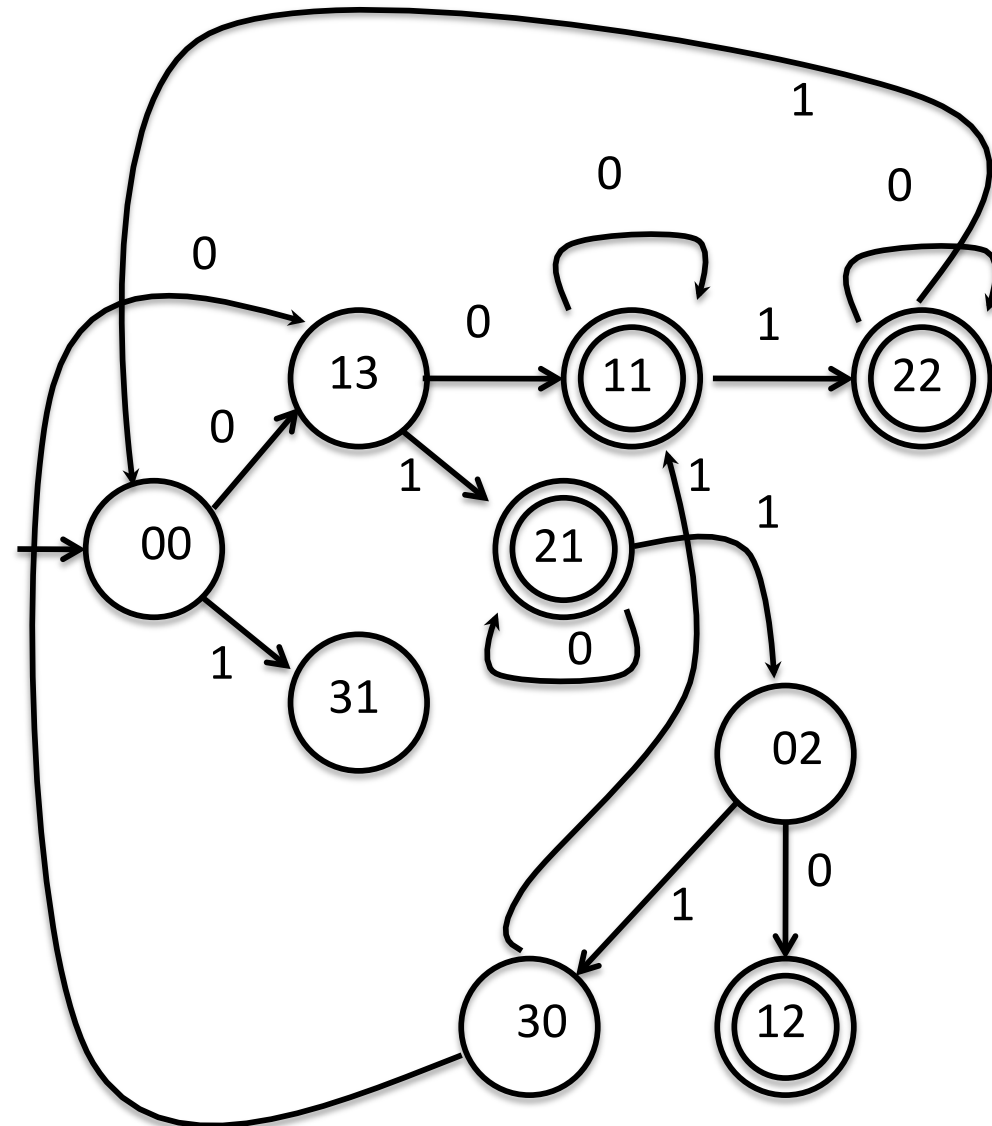
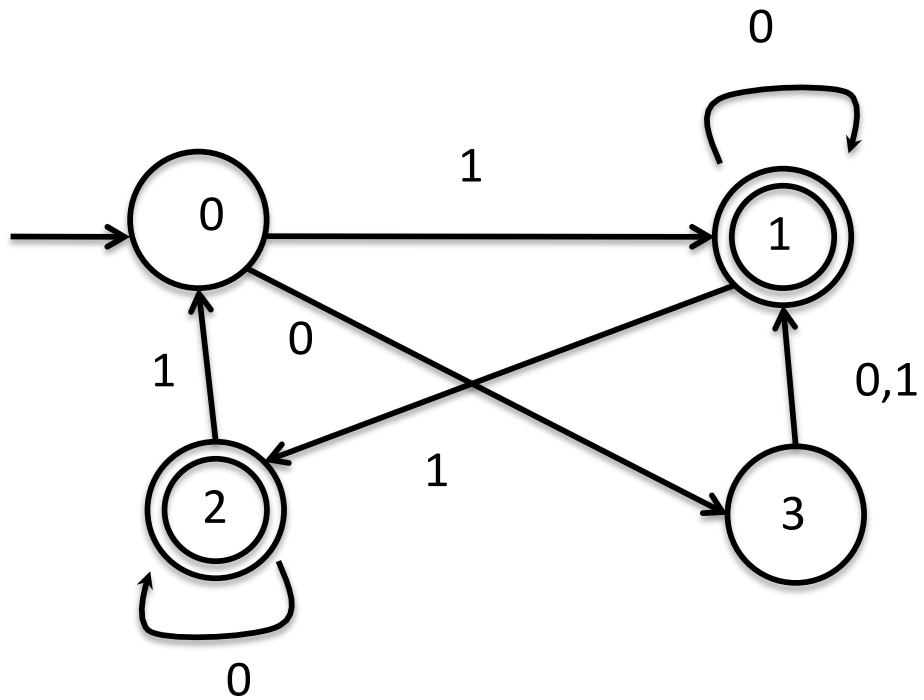
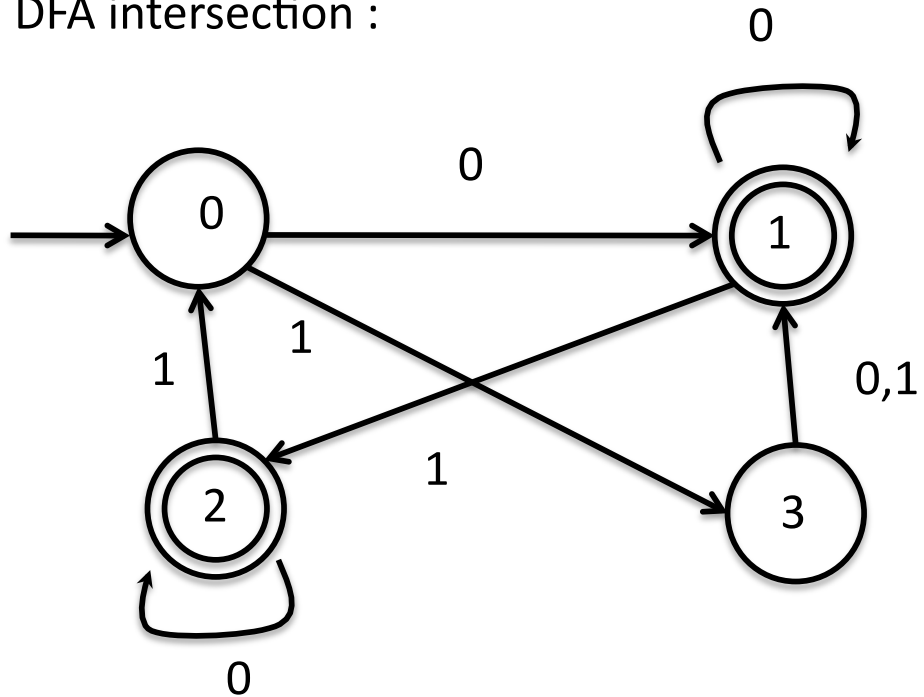
Finish 31 and 12 similarly.

DFA intersection :



Finish 31 and 12 similarly.

DFA intersection :



Finish 31 and 12 similarly.