

$$L1 = \{0, 10\}$$

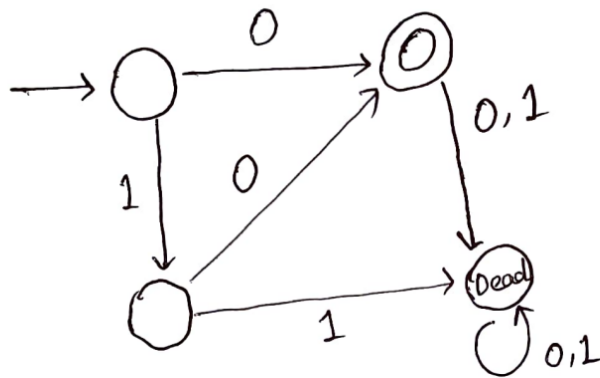
$$L2 = L1^*$$

$$L3 = \{\omega : \text{the length of } \omega \text{ is four}\}$$

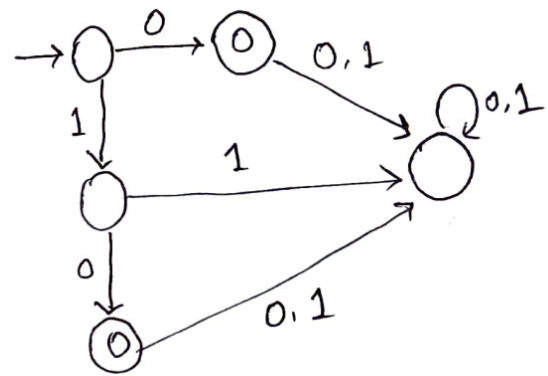
a) write down all strings in  $L2 \cap L3$ .

0000, 0010, 0100, 1000, 1010

b) DFA for  $L1$ :



or, we can also do this:



c) DFA for  $L2$ :

