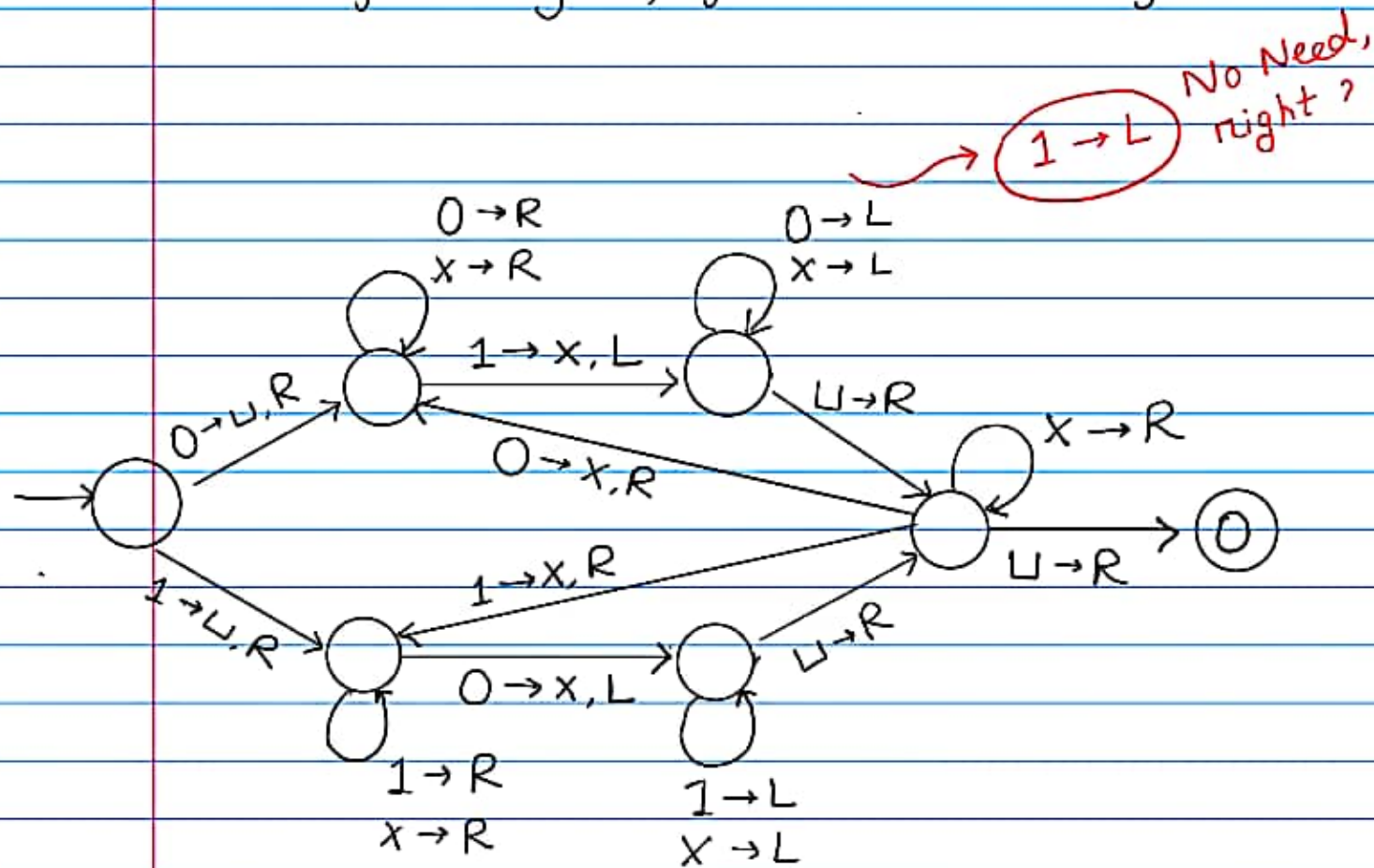


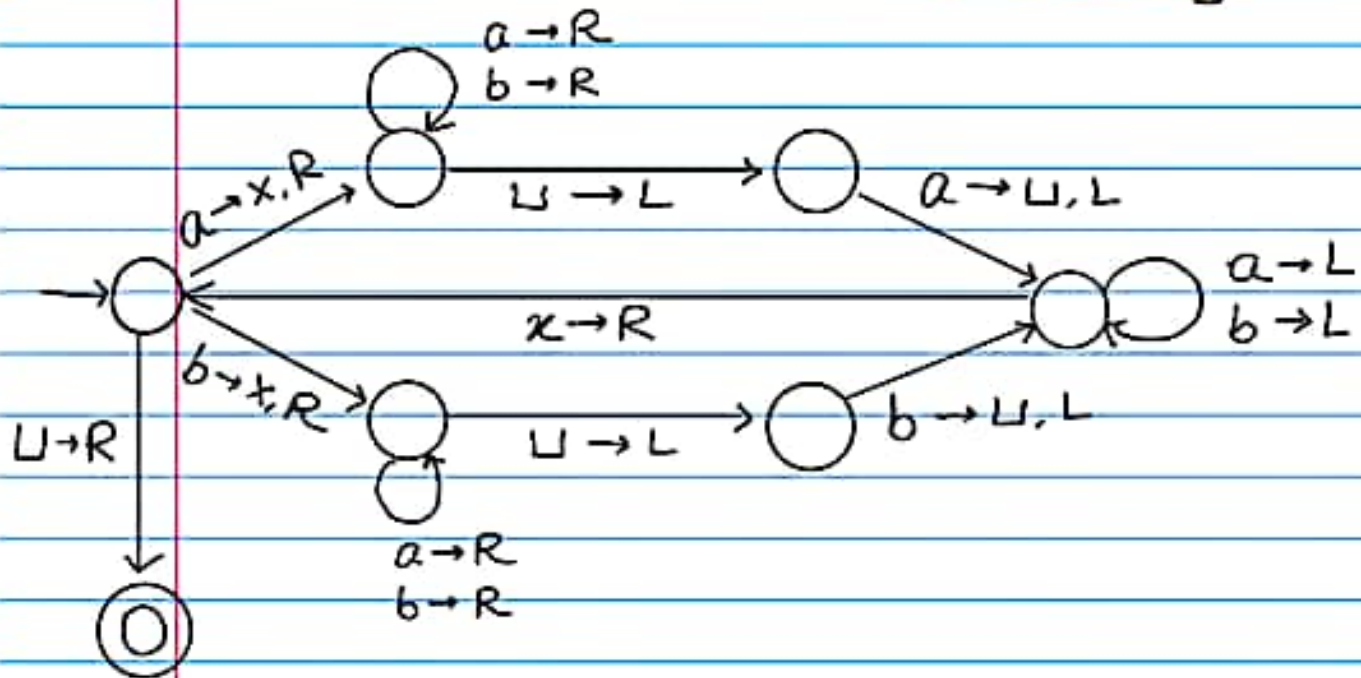
Qs 2: $L = \{w \in \{0,1\}^* : w \text{ contains equal amount of 0s and 1s}\}$

idea: for any 0 I can cross any 1

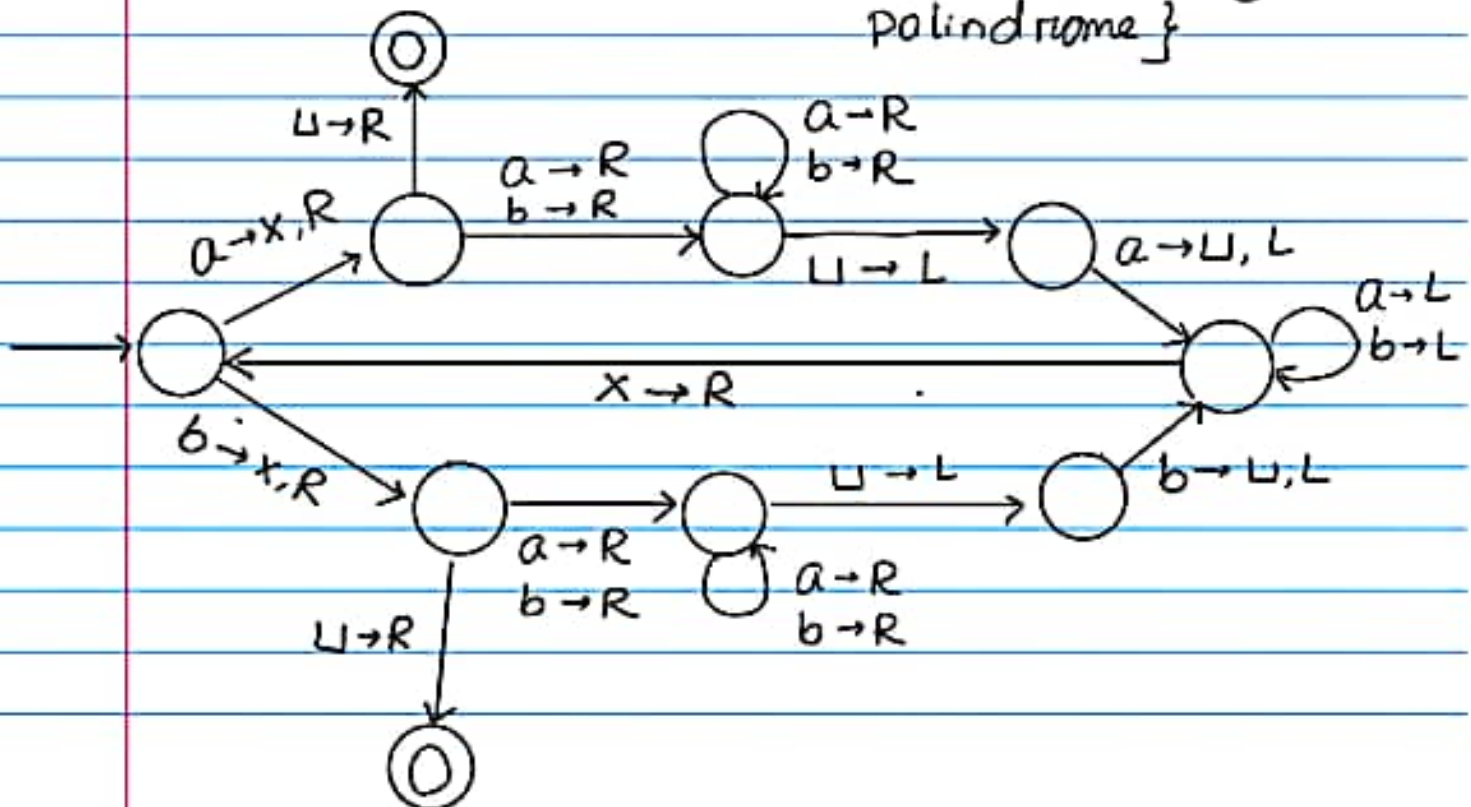
for any 1, I can cross any 0



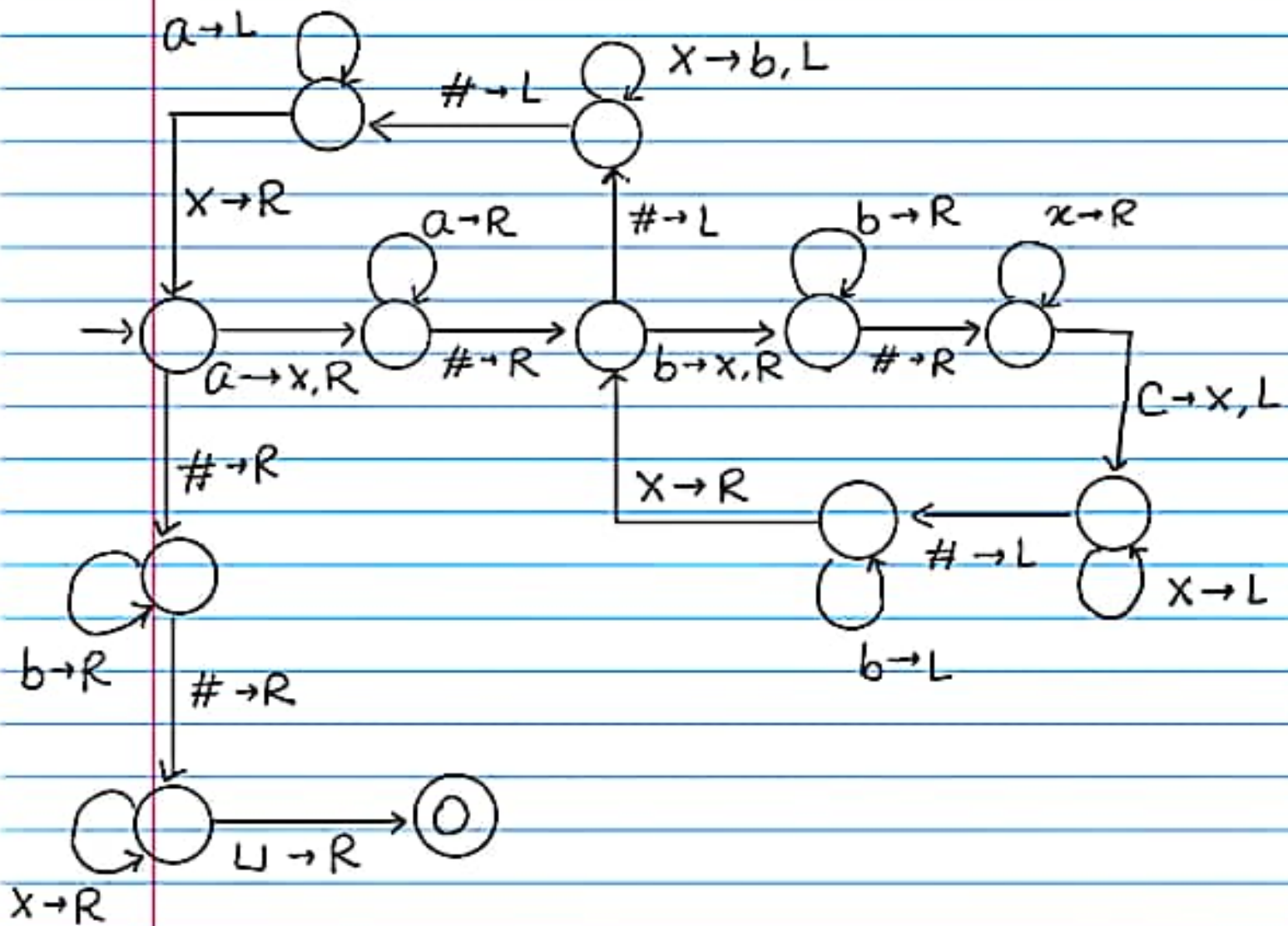
Qs3: $L = \{ w \in \{a,b\}^* : w \text{ is an even length palindrome} \}$



Qs3: $L = \{ w \in \{a,b\}^* : w \text{ is an odd length palindrome} \}$

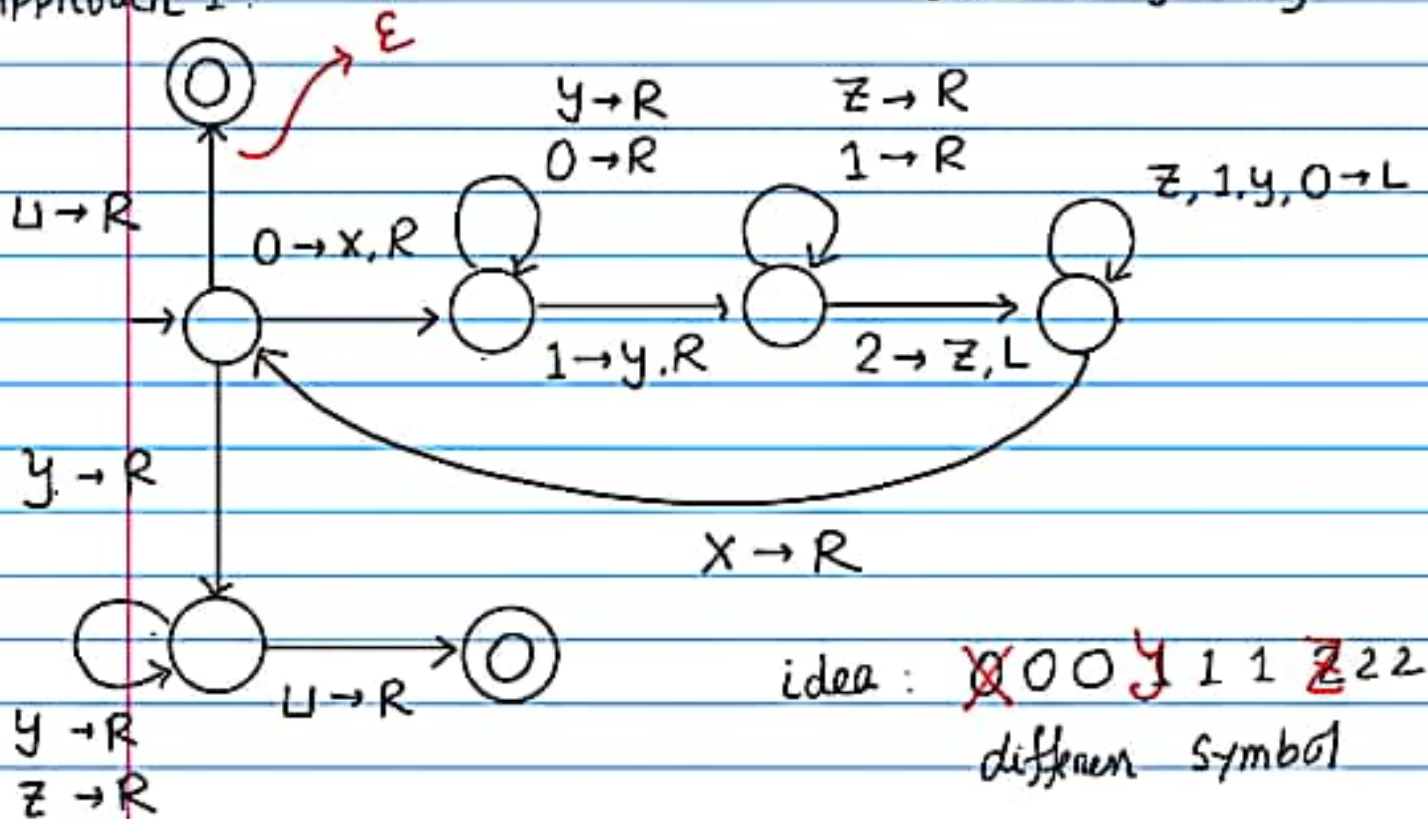


Q8:4 $L = \{ a^i \# b^j \# c^k \mid i \times j = k \text{ and } i, j, k \geq 0 \}$



Q55: $L = \{w \in \{0,1,2\}^* : 0^i 1^j 2^k \text{ where } i,j,k \geq 0 \text{ and } i=j=k\}$

Approach 1:



same symbol, starting U
0~~X~~0~~X~~~~X~~1~~X~~~~X~~2

Approach 2:

