

Name - Dipendu Ghosh

Class- M.Sc. 2nd year (Semester 3)

Roll No - 07

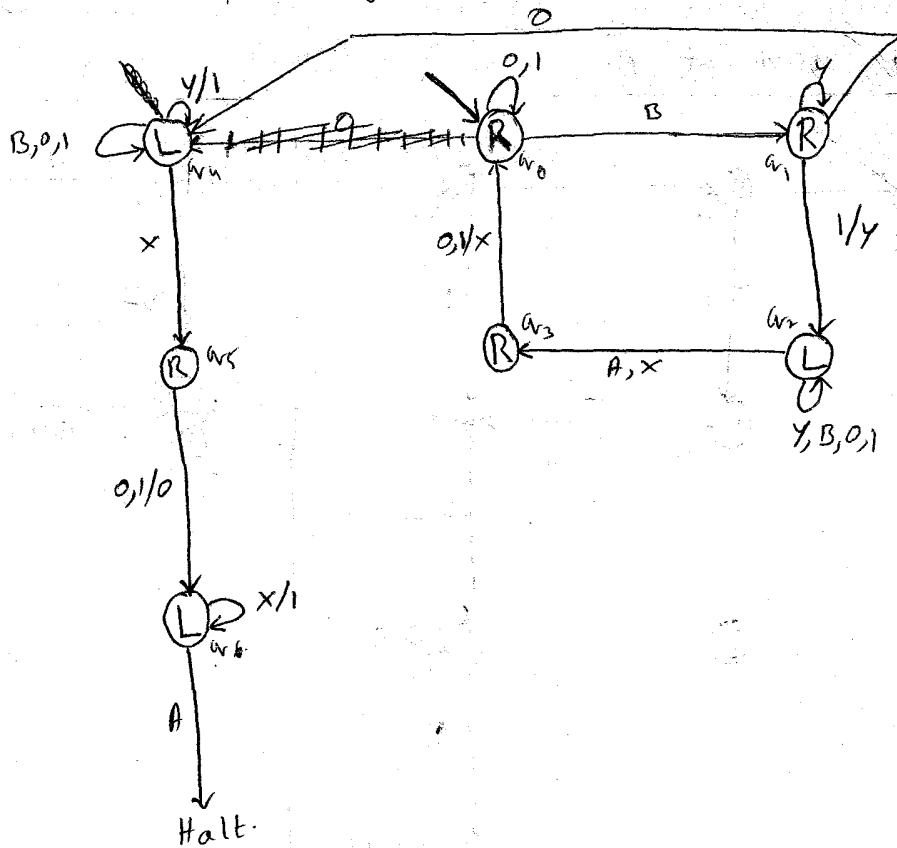
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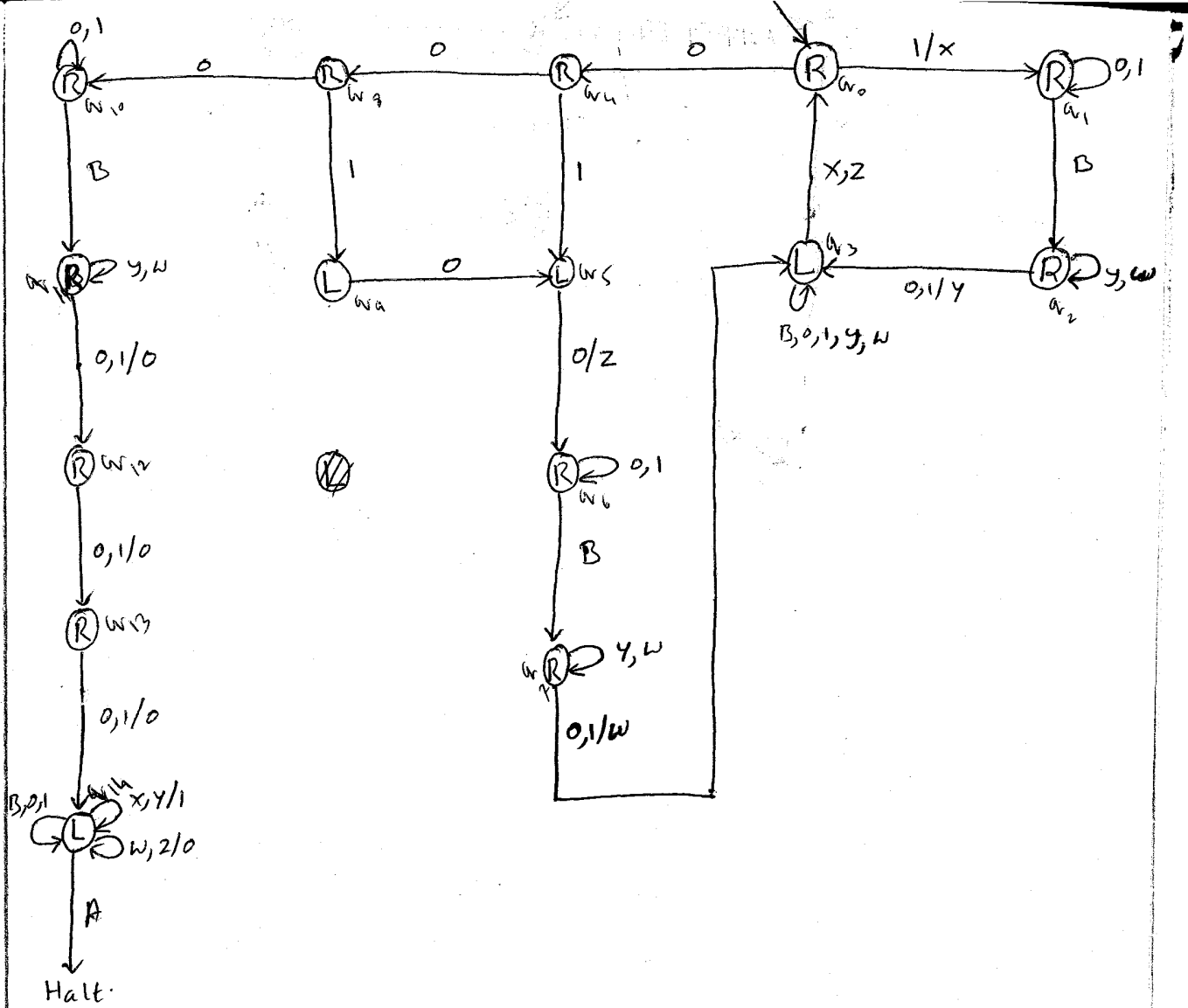
Right to Left Copy.

A 0101110100 ~ B 1111100110 ~

Assumptions:-

- 1) Infinitely Long tape
- 2) Copy from right to left. Right symbols are the input indicated by 'B' which is to be copied to the left starting from 'A'.
- 3) Unary symbol is represented by '1'
- 4) Termination of string by '0'
- 5) Replacing the input symbols by 'X' after reading and writing the output symbols by 'Y'.
- 6) At the end of processing all the X's and Y's are replaced by 1
- 7) Initially the tape head is at 'A' and at the end of the processing the tape head returns to 'A'





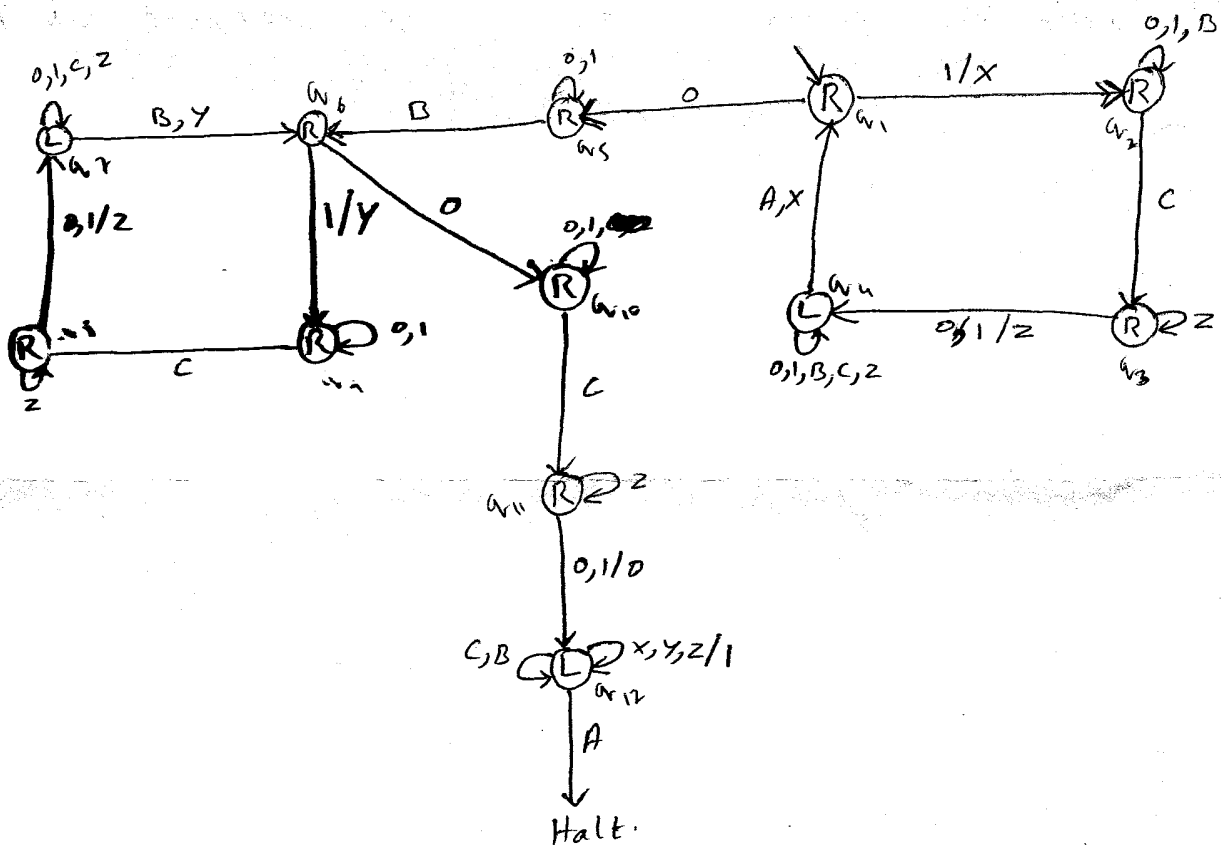
Addition

Assumption

first

- 1) The '1's of n input are replaced by 'x's initially.
- 2) The '1's of Second input are replaced by 'y's initially
- 3) The '1's of the output are written as 'z's initially.
- 4) The inputs are terminated by a single '0' and the output is also terminated by a single '0'.

A111110- --- B11110- --- C1111111110- -

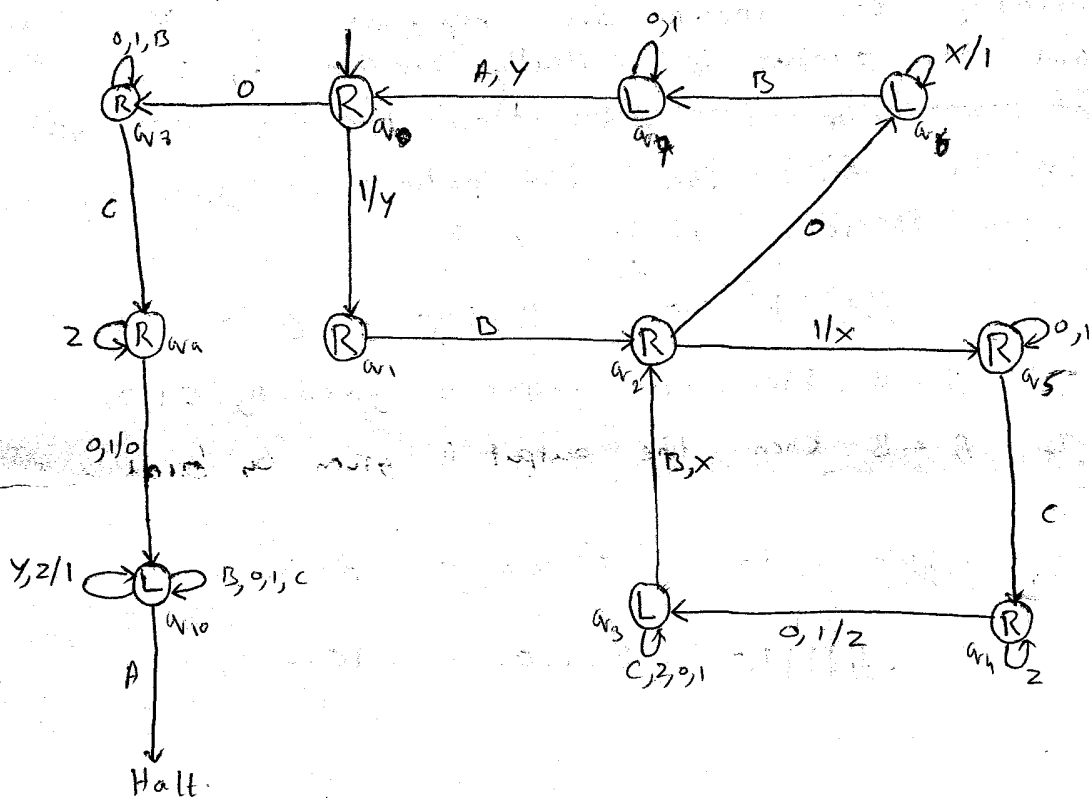
A + B

Multiplication

Assumptions

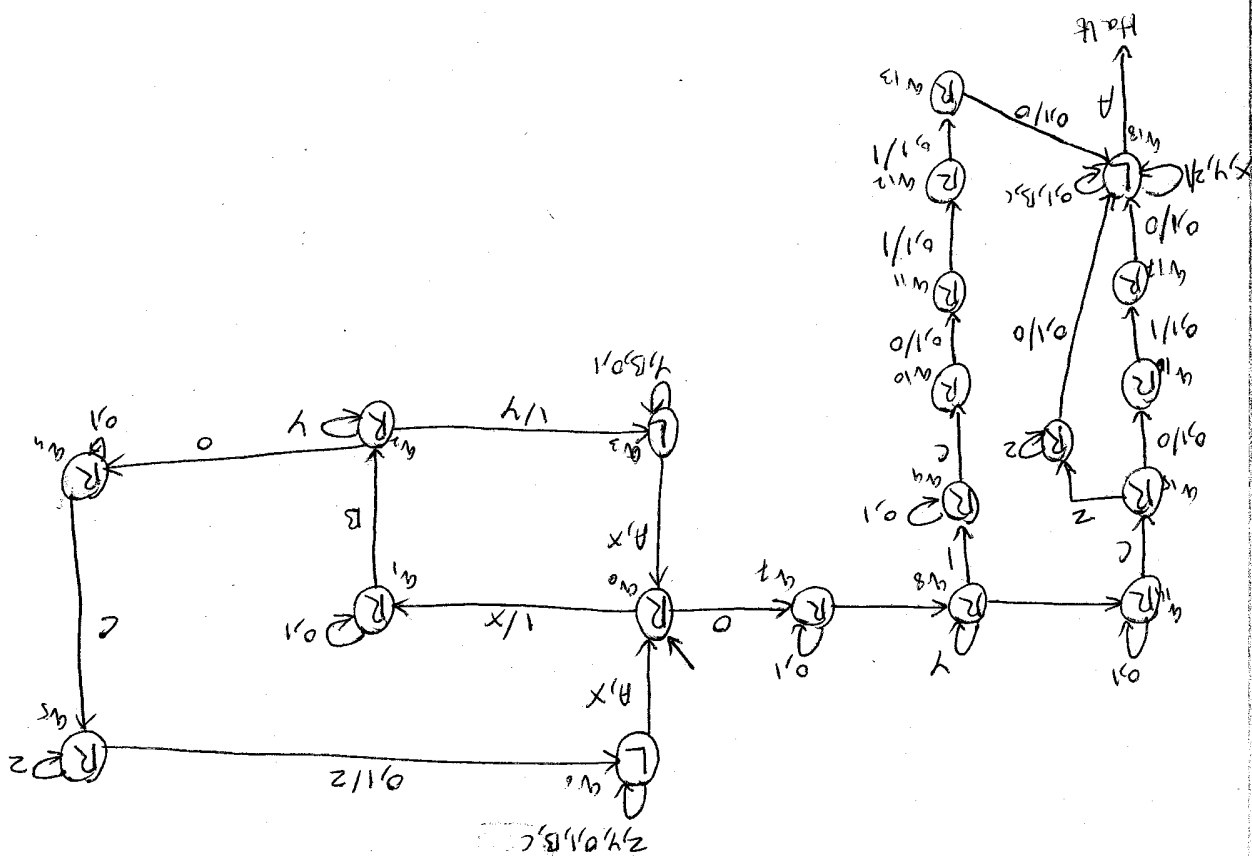
- 1) The '1's of the inputs are initially replaced by 'x's and 'y's.
- 2) The '1's of the output are written initially as 'z's and after the processing they are replaced by '1's
- 3) The inputs and the output are terminated by single '0's
- 4) The second input is repeated ~~the~~ for each '1' in the first input.

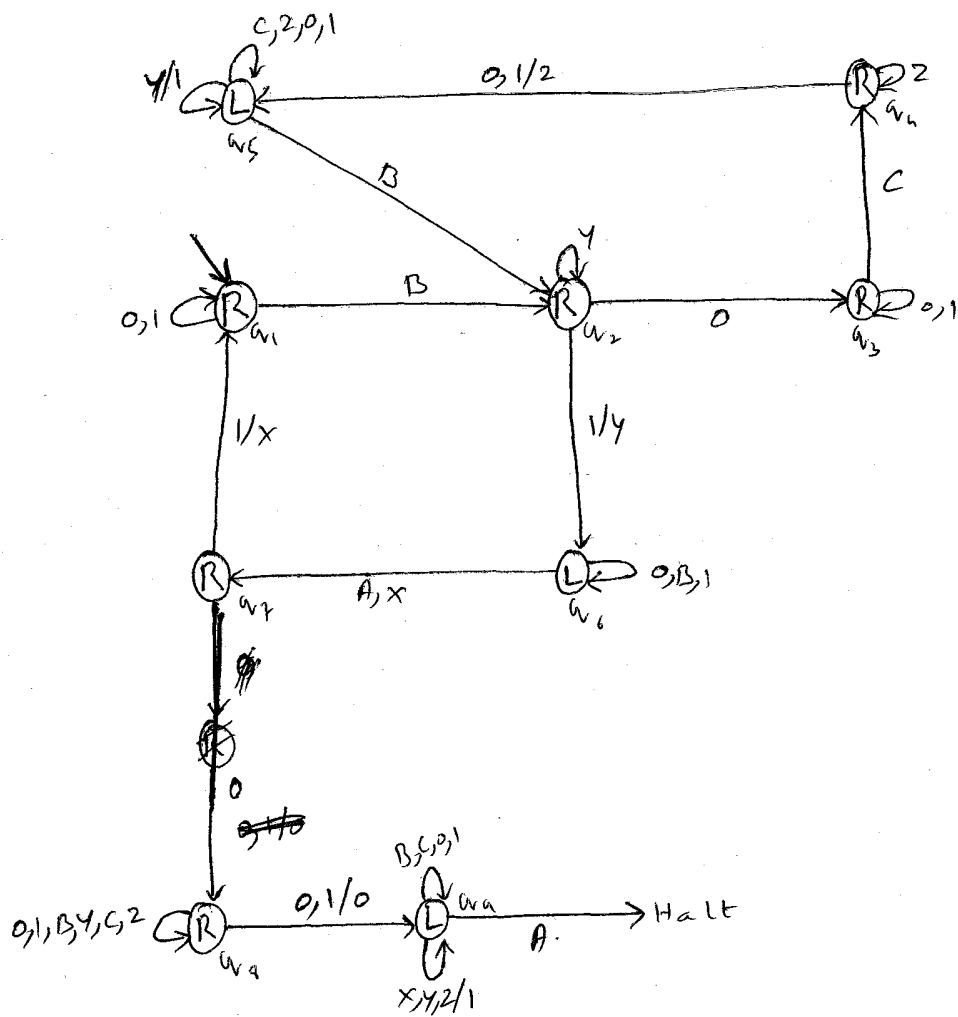
A1110.....B110----C111110----



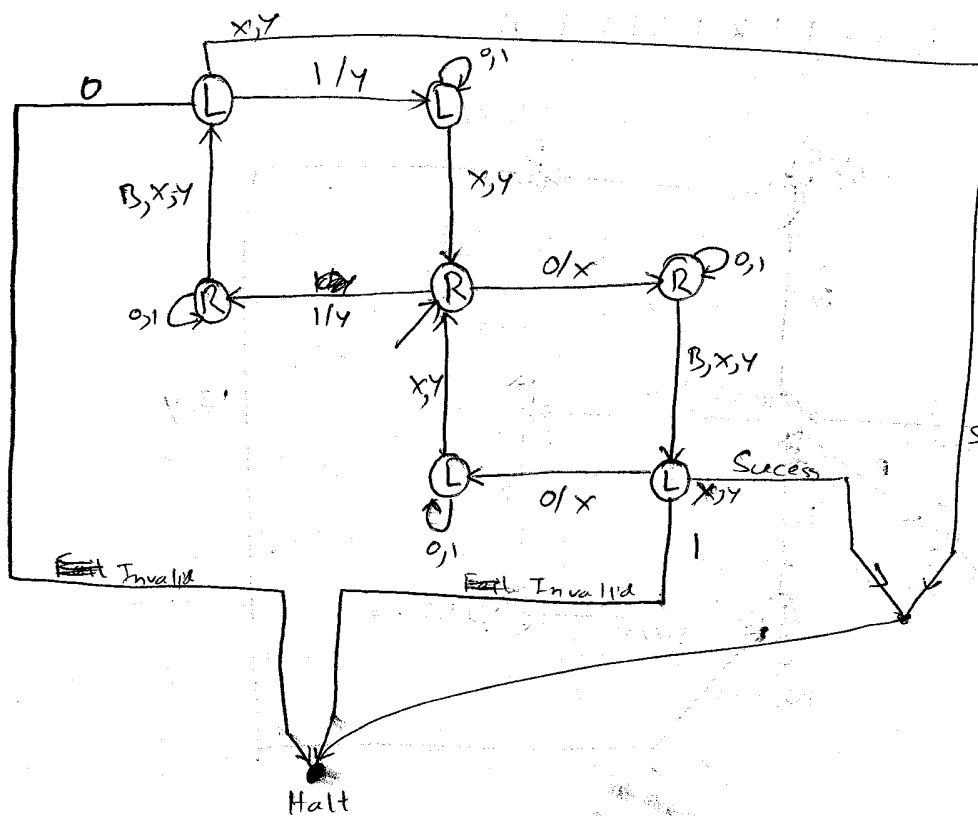
B x A

---0101110111101111011110---

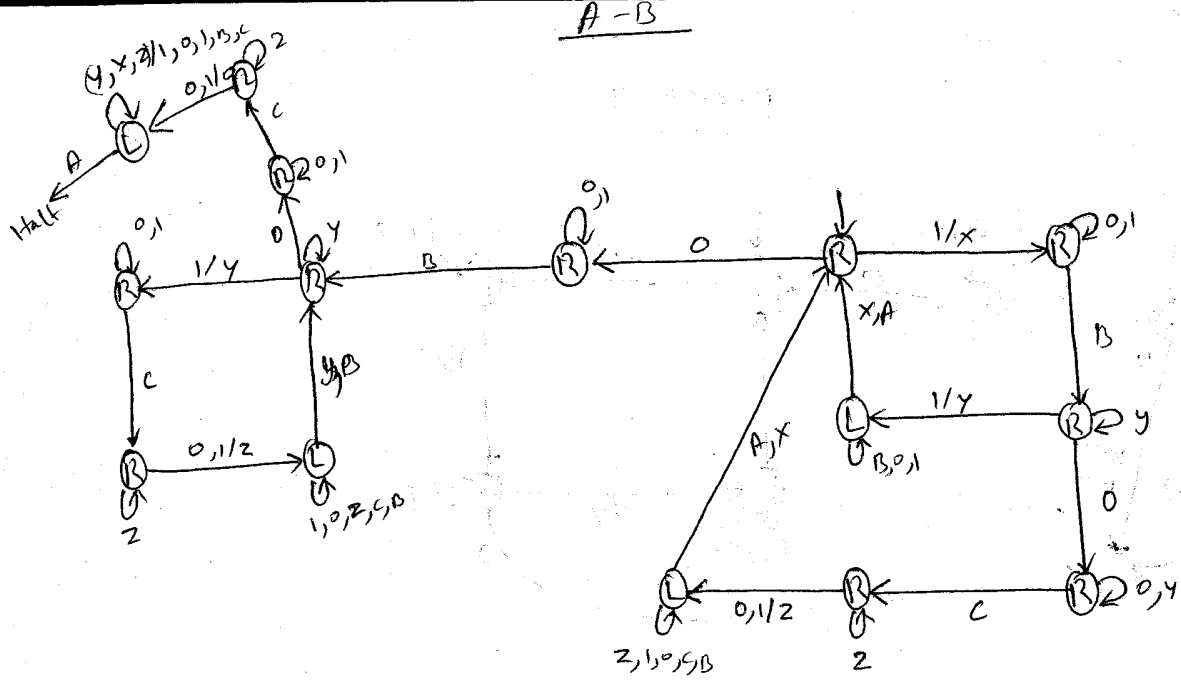




Palindrome



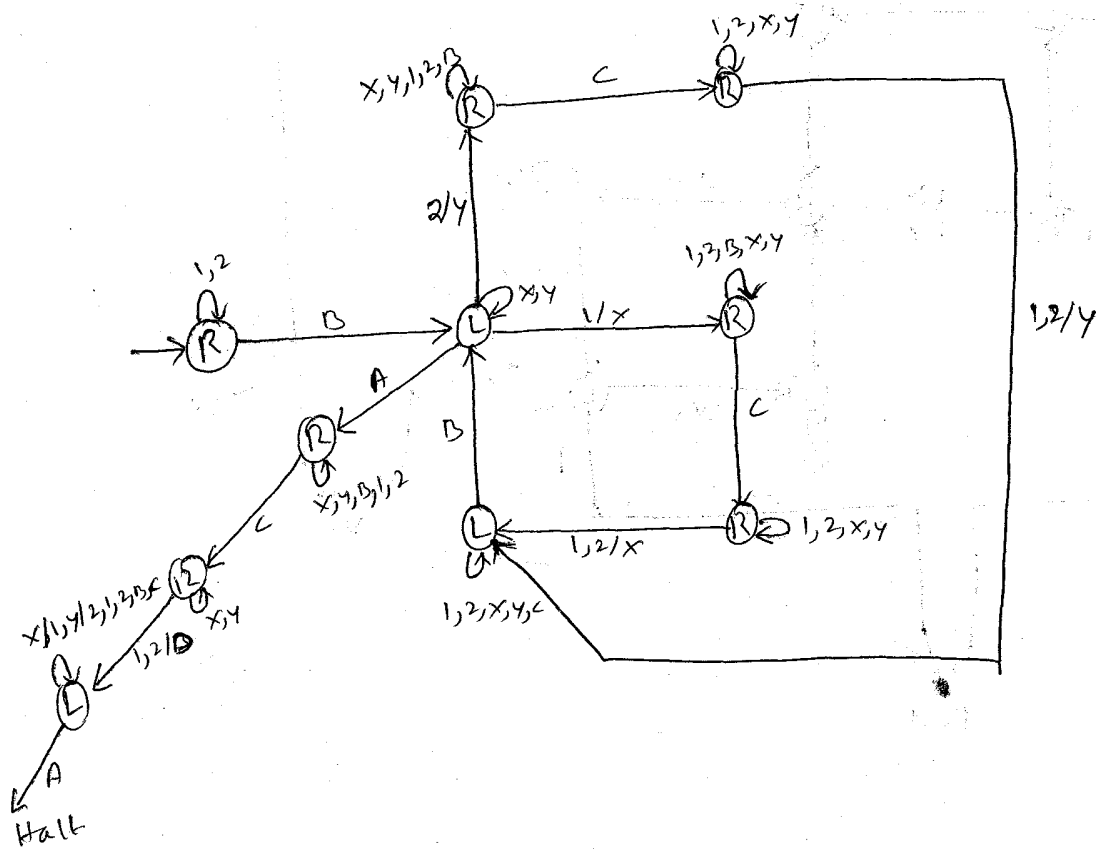
A-B



Reversing a string of 1's and 2's.

Input - A 1 2 1 2 1 2 1 1 2 B

Output - C 2 1 1 2 1 2 1 2 1 D



Matching

