

## CS305 Tutorial-10

1. Design a turing machine that replaces all occurrences of '111' by '101' from a sequence of 0's and 1's.
2. Design a turing machine that recognizes binary palindromes.  
( $\Sigma = \{0, 1\}$ ).
3. Design a turing machine to find the 2's complement of a given binary number on the tape.
4. Design a turing machine to the value of  $\log_2(n)$ , where  $n$  is a binary number on the tape and a perfect square of 2.

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