## Even Palindrome

Vietnamese

## English

Palindrome is a string that has the property of reading the same in either direction (left to right or right to left). You are to determine whether a given string can be expressed as a concatenation of palindromes of even length.

Note: A string can be formed by concatenation of any number of even palindrome strings.

## Input

First line contains $\mathbf{T}(\mathrm{T}<100)$, the number of test cases. $\mathbf{T}$ lines follow, each containing the string corresponding to that particular test case.

## Note:

There might be a new-line character (i.e. 'Ir' in C++) at the end of each line. Be careful with your languages.

## Output

Output consists of T lines, one corresponding to each test case. You should output YES if the string can be expressed as concatination of even length palindromes and $N O$ otherwise.

## Example

Input:
3
madam
aA
aabb

Output:
NO
NO
YES

## Constraints

Length of string $\leq 10^{6}$

