Inc Match Two

Input file:	`standard input`
Output file:	`standard output`
Time limit:	0.25 seconds
Memory limit:	4 megabytes

You are given a sequence s of lowercase Latin characters, on which you can perform the following operation **any** number of times:

- Choose any occurrence of a letter other than '`z`' and replace it with the next lexicographically smallest letter*; then, as long as there are two or more adjacent identical characters, delete them.

Determine whether it is possible to make the string empty.

Input

The first line of the input contains a single integer, t ($1 \le t \le 10^5$) — the number of test cases.

The only line of each test case contains a string, s ($1 \le |s| \le 51$, '`a`' $\le s_i \le$ '`z`') — the character sequence.

It is guaranteed that no two adjacent characters in s are equal.

It is guaranteed that the sum of $|s|$ over all test cases does not exceed 10^6.

Output

For each test case, output "`YES`" if it is possible to make the string empty or "`NO`" otherwise.

You may output the answer in any letter case (upper or lower). For example, the strings "`yEs`", "`yes`", "`Yes`", and "`YES`" will be recognized as positive answers.

Example

standard input	standard output
12 a ab abc abac abcab adabc azabc cbaza bacxz xkczy sveby aybjt	NO YES NO YES YES YES NO NO YES NO YES YES

Note

In the first test case, the string cannot become empty.

In the second test case, the first character can be replaced with '`b`' to match its neighbor.

In the third test case, one character will always remain in the end, regardless of the sequence of operations.

*For example, '`a`' becomes '`b`', '`b`' becomes '`c`', etc.