Haitang and Ava

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Ava will say an opening statement at the beginning of the live broadcast.

The conditions for a valid opening statement are as follows:

- An empty string is a valid opening statement.
- If S is a valid opening statement, then $S + \texttt{ava}$ and $\texttt{ava} + S$ are also valid opening statements.
- If S is a valid opening statement, then $S + \texttt{avava}$ and $\texttt{avava} + S$ are also valid opening statements.
- Any string that cannot be constructed using the above methods is not a valid opening statement.

Given a string S, you need to determine if it is a valid opening statement.

Input

Each test contains multiple test cases. The first line contains an integer T ($1 \le T \le 1.7 \times 10^5$) — the number of test cases. The description of the test cases follows.

The first and only line of each test case contains a string S ($3 \le |S| \le 5 \times 10^5$), consisting of lowercase letters of the English alphabet.

It is guaranteed that the sum of $|S|$ over all test cases does not exceed 5×10^5.

Output

For each test case, output "Yes" if S is a valid opening statement, and "No" otherwise.

Example

standard input	standard output
5 ava avavaava avavava avaava haitang	Yes Yes No Yes No