

Tickets

Problem Code: **TICKETS5**

Every day, Mike goes to his job by a bus, where he buys a ticket. On the ticket, there is a letter-code that can be represented as a string of upper-case Latin letters.

Mike believes that the day will be successful in case **exactly two different letters** in the code alternate. Otherwise, he believes that the day will be unlucky. Please see note section for formal definition of alternating code.

You are given a ticket code. Please determine, whether the day will be successful for Mike or not. Print "YES" or "NO" (without quotes) corresponding to the situation.

Input

The first line of the input contains an integer **T** denoting the number of test cases. The description of **T** test cases follows.

The first and only line of each test case contains a single string **S** denoting the letter code on the ticket.

Output

For each test case, output a single line containing "YES" (without quotes) in case the day will be successful and "NO" otherwise.

Note

Two letters **x**, **y** where **x** **!=** **y** are said to be alternating in a code, if code is of form "**xyxyxy...**".

Constraints

- $1 \leq T \leq 100$
- **S** consists only of upper-case Latin letters

Subtask 1 (50 points):

- $|S| = 2$

Subtask 2 (50 points):

- $2 \leq |S| \leq 100$
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Example

Input:

2

ABABAB

ABC

Output:

YES

NO