

Problem D. Short Sort

Time limit 1000 ms

Mem limit 262144 kB

There are three cards with letters **a**, **b**, **c** placed in a row in some order. You can do the following operation **at most once**:

- Pick two cards, and swap them.

Is it possible that the row becomes **abc** after the operation? Output **"YES"** if it is possible, and **"NO"** otherwise.

Input

The first line contains a single integer t ($1 \leq t \leq 6$) — the number of test cases.

The only line of each test case contains a single string consisting of each of the three characters **a**, **b**, and **c** exactly once, representing the cards.

Output

For each test case, output **"YES"** if you can make the row **abc** with at most one operation, or **"NO"** otherwise.

You can output the answer in any case (for example, the strings **"yEs"**, **"yes"**, **"Yes"** and **"YES"** will be recognized as a positive answer).

Examples

Input	Output
6	YES
abc	YES
acb	YES
bac	NO
bca	NO
cab	YES
cba	

Note

In the first test case, we don't need to do any operations, since the row is already **abc**.

In the second test case, we can swap **c** and **b**: **acb** \rightarrow **abc**.

In the third test case, we can swap **b** and **a**: **bac** \rightarrow **abc**.

In the fourth test case, it is impossible to make **abc** using **at most one** operation.