Problem L. 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 abc acb bac bca cab cba	YES YES YES NO NO YES

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` → `abc`.

In the third test case, we can swap `b` and `a`: `bac` → `abc`.

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