

## Problem E. Different String

**Time Limit** 1000 ms

**Mem Limit** 262144 kB

You are given a string  $s$  consisting of lowercase English letters.

Rearrange the characters of  $s$  to form a new string  $r$  that is **not equal** to  $s$ , or report that it's impossible.

### Input

The first line contains a single integer  $t$  ( $1 \leq t \leq 1000$ ) — the number of test cases.

The only line of each test case contains a string  $s$  of length at most 10 consisting of lowercase English letters.

### Output

For each test case, if no such string  $r$  exists as described in the statement, output "NO" (without quotes).

Otherwise, output "YES" (without quotes). Then, output one line — the string  $r$ , consisting of letters of string  $s$ .

You can output "YES" and "NO" in any case (for example, strings "yEs", "yes", and "Yes" will be recognized as a positive response).

If multiple answers are possible, you can output any of them.

### Examples

Input	Output
8 codeforces aaaaa xxxxxy co d nutdealer mwistht hhhhhhhhh	YES forcodesec NO YES xxyxx YES oc NO YES undertale YES thtsiwm NO

## Note

In the first test case, another possible answer is **forcescode**.

In the second test case, all rearrangements of **aaaaa** are equal to **aaaaa**.