Bigger is Greater

Problem Statement

Given a word w, rearrange the letters of w to construct another word s in such a way that, s is lexicographically greater than w. In case of multiple possible answers, find the lexicographically smallest one.

Input Format
The first line of input contains t, number of test cases. Each of the next t lines contains w.

Constraints
$1 \leq t \leq 10^5$
$1 \leq |w| \leq 100$
w will contain only lower case english letters and its' length will not exceed 100.

Output Format
For each testcase, output a string lexicographically bigger than w in a separate line. In case of multiple possible answers, print the lexicographically smallest one and if no answer exists, print `no answer`.

Sample Input

```
3
ab
bb
hefg
```

Sample Output

```
ba
no answer
hegf
```

Explanation

Testcase 1 : There exists only one string greater than `ab` which can be built by rearranging `ab`. That is `ba`.
Testcase 2 : Not possible to re arrange `bb` and get a lexicographically greater string.
Testcase 3 : `hegf` is the next string (lexicographically greater) to `hefg`.