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Optimal Substring Reversal   Problem Code: **REVAB**

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All submissions for this problem are available.

This problem is worth 1 point

You are given a string S. Each character of S is either 'a', or 'b'. You wish to reverse exactly one sub-string of S such that the new string is lexicographically smaller than all the other strings that you can get by reversing exactly one sub-string.

For example, given 'abab', you may choose to reverse the substring 'ab' that starts from index 2 (0-based). This gives you the string 'abba'. But, if you choose the reverse the substring 'ba' starting from index 1, you will get 'aabb'. There is no way of getting a smaller string, hence reversing the substring in the range [1, 2] is optimal.

Input

First line contains a number T, the number of test cases.

Each test case contains a single string S. The characters of the string will be from the set { a, b }.

Output

For each test case, print two numbers separated by comma; for example "x,y" (without the quotes and without any additional whitespace). "x,y" describe the starting index (0-based) and ending index respectively of the substring that must be reversed in order to acheive the smallest lexicographical string. If there are multiple possible answers, print the one with the smallest 'x'. If there are still multiple answers possible, print the one with the smallest 'y'.

Constraints

```
1 ≤ T ≤ 100
1 ≤ length of S ≤ 1000
```

Sample Input

```
5
abab
abba
bbaa
aaaa
babaabba
```

Sample Output

```
1,2
1,3
0,3
0,0
0,4
```

Attention

The constraints are designed such that an $O(N^3)$ algorithm per test case, would not pass.

Author: directi_campus (/users/directi_campus)

Tags: directi_campus (/tags/problems/directi_campus)

Date Added: 3-08-2014

Time Limit: - 1 secs

Source Limit: 50000 Bytes

Languages: C, CPP 4.3.2, CPP 6.3, CPP14, JAVA, PYTH, PYTH 3.5

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CodeChef (http://www.codechef.com) - A Platform for Aspiring Programmers

CodeChef was created as a platform to help programmers make it big in the world of algorithms, **computer programming** and **programming contests**. At CodeChef we work hard to revive the geek in you by hosting a **programming contest** at the start of the month and another smaller programming challenge in the middle of the month. We also aim to have training sessions and discussions related to **algorithms**, **binary search**, technicalities like **array size** and the likes. Apart from providing a platform for **programming competitions**, CodeChef also has various algorithm tutorials and forum discussions to help those who are new to the world of **computer programming**.

Practice Section (https://www.codechef.com/problems/easy) - A Place to hone your 'Computer Programming Skills'

Try your hand at one of our many practice problems and submit your solution in a language of your choice. Our **programming contest** judge accepts solutions in over 35+ programming languages. Preparing for coding contests were never this much fun! Receive points, and move up through the CodeChef ranks. Use our practice section to better prepare yourself for the multiple **programming challenges** that take place through-out the month on CodeChef.

Compete (https://www.codechef.com/problems/easy) - Monthly Programming Contests and Cook-offs

Here is where you can show off your **computer programming skills**. Take part in our 10 day long monthly coding contest and the shorter format Cook-off **coding contest**. Put yourself up for recognition and win great prizes. Our **programming contests** have prizes worth up to INR 20,000 (for Indian Community), $700 (for Global Community) and lots more CodeChef goodies up for grabs.

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Problem Setting (http://www.codechef.com/problemsetting)

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