

Write the logic for the following programmes:

Instructions:

- Use JavaScript (Object Oriented only), that is you need to follow modular approach to get the value and calculate the output.
- Create a separate module for each function and export that using JS export.
- Initiate a constructor to use that function.
- Create an HTML page that will list the links to the given function, on selection a page will open and that page will accept the input and display the output for the selected function.
- Please select the function and list item name appropriately.
- Please use proper variable names, comments and file names.
- Please use proper checks.
- Use http-server to serve your static files.
- Proper validation

1) Roy wanted to increase his typing speed for programming contests. So, his friend advised him to type the sentence "The quick brown fox jumps over the lazy dog" repeatedly, because it is a pangram. (Pangrams are sentences constructed by using every letter of the alphabet at least once.)

After typing the sentence several times, Roy became bored with it. So he started to look for other pangrams.

Given a sentence , tell Roy if it is a pangram or not.

Input Format

Input consists of a string .

Constraints

Length of string can be at most 10^3 chars and it may contain spaces, lower case and upper case letters. Lower-case and upper-case instances of a letter are considered the same.

Output Format

Output a line containing pangram if is a pangram, otherwise output not pangram.

Sample Input

Input #1

We promptly judged antique ivory buckles for the next prize

Input #2

We promptly judged antique ivory buckles for the prize

Sample Output

Output #1

pangram

Output #2

not pangram

2) Shashank likes strings in which consecutive characters are different. For example, he likes ABABA, while he doesn't like ABAA. Given a string containing characters `a` and `b` only, he wants to change it into a string he likes. To do this, he is allowed to delete the characters in the string.

Your task is to find the minimum number of required deletions.

Input Format

The first line contains an integer `T`, i.e. the number of test cases.

The next `T` lines contain a string each.

Output Format

For each test case, print the minimum number of deletions required.

Sample Input

```
5
AAAA
BBBBB
ABABABAB
BABABA
AAABBB
```

Sample Output

```
3
4
0
0
4
```

Explanation

AAAA A, 3 deletions

BBBBB B, 4 deletions

ABABABAB ABABABAB, 0 deletions

BABABA BABABA, 0 deletions

AAABBB AB, 4 deletions because to convert it to AB we need to delete 2 A's and 2 B's

3) John has discovered various rocks. Each rock is composed of various elements, and each element is represented by a lower-case Latin letter from 'a' to 'z'. An element can be present multiple times in a rock. An element is called a gem-element if it occurs at least once in each of the rocks.

Given the list of rocks with their compositions, display the number of gem-elements that exist in those rocks.

Input Format

The first line consists of an integer, the number of rocks.

Each of the next lines contains a rock's composition. Each composition consists of lower-case letters of English alphabet.

Constraints

Each composition consists of only lower-case Latin letters ('a'-'z').

Output Format

Print the number of gem-elements that are common in these rocks. If there are none, print 0.

Sample Input

```
3
abcdde
baccd
eeabg
```

Sample Output

```
2
```

Explanation

Only "a" and "b" are the two kinds of gem-elements, since these are the only characters that occur in every rock's composition.

4) Given a string, of lowercase letters, determine the index of the character whose removal will make a palindrome. If is already a palindrome or no such character exists, then print -1 . There will always be a valid solution, and any correct answer is acceptable. For example, if "bcbc", we can either remove 'b' at

index or 'c' at index .

Input Format

The first line contains an integer, denoting the number of test cases.

Each line of the subsequent lines (where) describes a test case in the form of a single string, .

Constraints

All characters are lowercase English letters.

Output Format

Print an integer denoting the zero-indexed position of the character that makes not a palindrome; if is already a palindrome or no such character exists, print .

Sample Input

```
3
aaab
baa
aaa
```

Sample Output

```
3
0
-1
```

Explanation

Test Case 1: "aaab"

Removing 'b' at index results in a palindrome, so we print on a new line.

Test Case 2: "baa"

Removing 'b' at index results in a palindrome, so we print on a new line.