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The Love-Letter Mystery

by [amititkgp](#)

Problem

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James found a love letter his friend Harry has written for his girlfriend. James is a prankster, so he decides to meddle with the letter. He changes all the words in the letter into [palindromes](#).

To do this, he follows two rules:

1. He can reduce the value of a letter, e.g. he can change *d* to *c*, but he cannot change *c* to *d*.
2. In order to form a palindrome, if he has to repeatedly reduce the value of a letter, he can do it until the letter becomes *a*. Once a letter has been changed to *a*, it can no longer be changed.

Each reduction in the value of any letter is counted as a single operation. Find the minimum number of operations required to convert a given string into a palindrome.

Input Format

The first line contains an integer *T*, i.e., the number of test cases.
The next *T* lines will contain a string each. The strings do not contain any spaces.

Constraints

$$1 \leq T \leq 10$$

$$1 \leq \text{length of string} \leq 10^4$$

All characters are lower case English letters.

Output Format

A single line containing the number of minimum operations corresponding to each test case.

Sample Input

```
4
abc
abcba
abcd
cba
```

Sample Output

```
2
0
4
2
```

Explanation

1. For the first test case, *abc* -> *abb* -> *aba*.
2. For the second test case, *abcba* is already a palindromic string.
3. For the third test case, *abcd* -> *abcc* -> *abcb* -> *abca* = *abca* -> *abba*.
4. For the fourth test case, *cba* -> *bba* -> *aba*.

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Submissions: 43476

Max Score: 20

Difficulty: Easy

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Java 7   

```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11     }
12 }
```

Line: 1 Col: 1

 Upload Code as File

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