# The Love-Letter Mystery



### **Problem Statement**

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 < T < 10
```

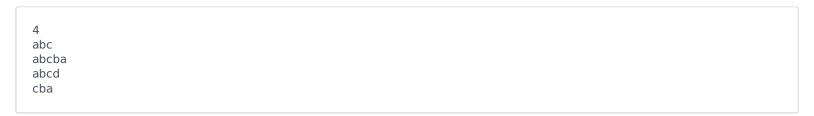
 $1 < length of string < 10^4$ 

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



## **Sample Output**

2			
۷			
0			
U			
4			
4			
2			
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,  $abcd \rightarrow abcc \rightarrow abcb \rightarrow abca = abca \rightarrow abba$ .
- 4. For the fourth test case, cba -> bba -> aba.