**The Love-Letter Mystery**

https://hr-avatars.s3.amazonaws.com/20791764-b9ea-4720-bc8c-416ec41364c8/150x150.png**by [amititkgp](https://www.hackerrank.com/amititkgp)**

* [**Problem**](https://www.hackerrank.com/challenges/the-love-letter-mystery)
* [**Submissions**](https://www.hackerrank.com/challenges/the-love-letter-mystery/submissions)
* [**Leaderboard**](https://www.hackerrank.com/challenges/the-love-letter-mystery/leaderboard)
* [**Discussions**](https://www.hackerrank.com/challenges/the-love-letter-mystery/forum)
* [**Editorial**](https://www.hackerrank.com/challenges/the-love-letter-mystery/editorial)
* [**Topics**](https://www.hackerrank.com/challenges/the-love-letter-mystery/topics)

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](https://en.wikipedia.org/wiki/Palindrome).

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 , i.e., the number of test cases.   
The next  lines will contain a string each. The strings do not contain any spaces.

**Constraints**   
   
 *length of string*    
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, ab**c** -> ab**b** -> aba.
2. For the second test case, *abcba* is already a palindromic string.
3. For the third test case, *abc****d****-> abc****c****-> abc****b****-> abc****a****= ab****c****a -> ab****b****a*.
4. For the fourth test case, ***c****ba ->****b****ba -> aba*.

<https://www.hackerrank.com/challenges/the-love-letter-mystery?h_r=next-challenge&h_v=zen>

static void Main(string[] args)

{

int t = int.Parse(Console.ReadLine());

while (t-- > 0)

{

// string str = "abcd";

string str = Console.ReadLine(); // "cdyz";

char[] s = str.ToCharArray();

int i = 0, j = s.Length - 1;

int ans = 0;

while (i < j)

{

while (s[j] >= 'a' && s[i] < s[j])

{

s[j]--;

ans++;

}

while (s[i] >= 'a' && s[j] < s[i])

{

s[i]--;

ans++;

}

i++;

j--;

}

Console.WriteLine(ans);

}

Console.ReadLine();

}