# The Love-Letter Mystery



James found a love letter that his friend Harry has written to 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 only reduce the value of a letter by 1, i.e. he can change d to c, but he cannot change c to d or d to b.
- 2. The letter *a* may not be reduced any further.

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.

For example, given the string s = cde, the following two operations are performed:  $cde \rightarrow cdd \rightarrow cdc$ .

# **Function Description**

Complete the *theLoveLetterMystery* function in the editor below. It should return the integer representing the minimum number of operations needed to make the string a palindrome.

theLoveLetterMystery has the following parameter(s):

• s: a string

## **Input Format**

The first line contains an integer q, the number of queries.

The next q lines will each contain a string s.

#### **Constraints**

$$1 \le q \le 10$$

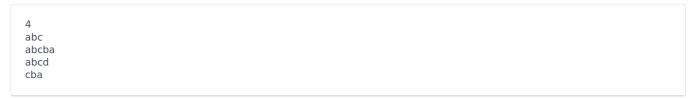
$$1 \le |\mathsf{s}| \le 10^4$$

All strings are composed of lower case English letters, \*ascii[a-z], with no spaces.

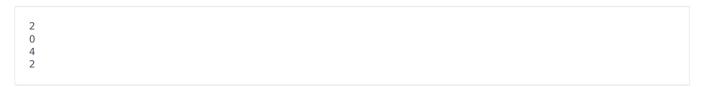
#### **Output Format**

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

### Sample Input



## **Sample Output**



# **Explanation**

1. For the first test case,  $ab\mathbf{c} \rightarrow ab\mathbf{b} \rightarrow aba$ .

- 2. For the second test case, *abcba* is already a palindromic string.
- 3. For the third test case,  $abcd \rightarrow abcc \rightarrow abcb \rightarrow abca \rightarrow abba$ .
- 4. For the fourth test case,  $cba \rightarrow bba \rightarrow aba$ .