The Love-Letter Mystery ☆

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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 $s = \texttt{cde}$, the following two operations are performed: $cd\textbf{e} \rightarrow cd\textbf{d} \rightarrow cdc$.

Function Description

Complete the *theLoveLetterMystery* function in the editor below. It should return the integer representing the minimum number of operations 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

$$1 \le q \le 10$$
$$1 \le |s| \le 10^4$$

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

```
4
abc
abcba
abcd
cba
```

Sample Output

```
2
0
```

4
2

Explanation

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

2. For the second test case, $abcba$ is already a palindromic string.

3. For the third test case, $abc\boldsymbol{d} \rightarrow abc\boldsymbol{c} \rightarrow abc\boldsymbol{b} \rightarrow ab\boldsymbol{c}a \rightarrow abba$.

4. For the fourth test case, $\boldsymbol{c}ba \rightarrow \boldsymbol{b}ba \rightarrow aba$.