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The Love-Letter Mystery

Problem Submissions Leaderboard

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 $\mathbf{1}$, 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

$$\begin{aligned} &1 \leq q \leq 10 \\ &1 \leq \mid \mathbf{s} \mid \leq 10^4 \end{aligned}$$

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

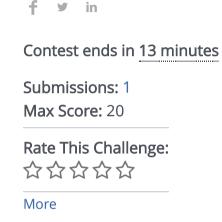
cba

Sample Output

- 2
- 0
- 4
- 2

Explanation

- 1. For the first test case, $abc \rightarrow abb \rightarrow aba$.
- 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, $cba \rightarrow bba \rightarrow aba$.



```
int op = 0;
13
                int i = 0;
14
15
                int i = s.length() - 1;
                while(i < j)</pre>
16
17 ▼
18
                     op += Math.abs(s.charAt(i) - s.charAt(j));
19
                     j++;
20
                     j--;
21
22
              return op;
23
24
25
26
        }
27
28
        private static final Scanner scanner = new Scanner(System.in);
29
        public static void main(String[] args) throws IOException {
30 ₹
            BufferedWriter bufferedWriter = new BufferedWriter(new
31
    FileWriter(System.getenv("OUTPUT_PATH")));
32
33
            int q = scanner.nextInt();
            scanner.skip("(\r\langle n| [\n\r\langle u2028 \u2029 \u0085])?");
34
35
            for (int qItr = 0; qItr < q; qItr++) {</pre>
36 ▼
37
                 String s = scanner.nextLine();
38
39
                 int result = theLoveLetterMystery(s);
40
                 bufferedWriter.write(String.valueOf(result));
41
                 bufferedWriter.newLine();
42
            }
43
44
45
            bufferedWriter.close();
46
47
            scanner.close();
```

 		2010 Zotto Imyoto.y 0 1 1002	2010 20101, 001	
48 49 50	}			
			Line: 1 Col: 1	

<u>Upload Code as File</u> Test against custom input

Run Code

Submit Code

Testcase 0 ✓ Testcase 1 ✓

Congratulations, you passed the sample test case.

Click the **Submit Code** button to run your code against all the test cases.

Input (stdin)

abc abcba abcd cba

Your Output (stdout)

2 0

Expected Output

2 0

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