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| --- | --- | --- |
| F | Convert String to Palindrome | Time Limit:  **1 sec** |
| Setter: Rajon Bardhan | Memory Limit:  **512 MB** |

A palindrome is a word, number, phrase, or other sequence of characters which reads the same backward as forward, such as “madam” or “racecar” or the number, “10801”. Sentence-length palindromes may be written when allowances are made for adjustments to capital letters, punctuation, and word dividers, such as “A man, a plan, a canal, Panama!”, “Was it a car or a cat I saw?” or “No ‘x’ in Nixon”. In this problem, you will be given a word which contains only lower case alphabets. You need to find out a way to make the word palindrome by deleting minimum number of characters from the string. Let, a word of length n is “A1 A2 A3……An-2 An-1 An”. If you delete the ith character from the word then new word will be “A1 A2 A3….Ai-1 Ai+1.…An-2 An-1 An”. Here is an example. Let, a word is “abbea”. Now, if you delete the 4th character ‘e’ from the word, you will get the word “abba”, which is a palindrome.

**Input:**

The first line is an integer, **T (T <= 100)**, which is the number of test cases. This line is followed by T lines of T cases. Each case contains a word. The word contains only lower case alphabets with no special characters. The length of the word is less than **1001**.

**Output:**

For each case, print the number of case following by the required result.

**Sample I/O:**

|  |  |
| --- | --- |
| Sample Input | Sample Output |
| 2  abxa  abdba | Case 1: 1  Case 2: 0 |

**Note**: Look, for 1st case, if x is deleted from the word, then we will get the palindrome “aba”. For 2nd case, the word is already palindromic word, no character is required to delete.