



All Domains > Algorithms > Strings > Palindrome Index

Badge Progress [\(Details\)](#)

Points: 1155.76 Rank: 16878

Palindrome Index

by amititkgp

Problem

Submissions

Leaderboard

Discussions

Editorial

Topics

Given a string, S , of lowercase letters, determine the index of the character whose removal will make S a palindrome. If S is already a palindrome or no such character exists, then print -1 . There will always be a valid solution, and any correct answer is acceptable. For example, if $S = "bcbc"$, we can either remove 'b' at index 0 or 'c' at index 3.

Input Format

The first line contains an integer, T , denoting the number of test cases.

Each line i of the T subsequent lines (where $0 \leq i < T$) describes a test case in the form of a single string, S_i .

Constraints

- $1 \leq T \leq 20$
- $1 \leq |S| \leq 10^5 + 5$
- All characters are lowercase English letters.

Output Format

Print an integer denoting the *zero-indexed* position of the character that makes S not a palindrome; if S is already a palindrome or no such character exists, print -1 .

Sample Input

```
3
aaab
baa
aaa
```

Sample Output

```
3
0
-1
```

Explanation

Test Case 1: "aaab"

Removing 'b' at index 3 results in a palindrome, so we print 3 on a new line.

Test Case 2: "baa"

Removing 'b' at index 0 results in a palindrome, so we print 0 on a new line.

Test Case 3: "aaa"

This string is already a palindrome, so we print -1 ; however, 0, 1, and 2 are also all acceptable answers, as the string will still be a palindrome if any one of the characters at those indices are removed.

Note: The custom checker logic for this challenge is available [here](#).

[f](#) [t](#) [in](#)

Solved score: 25.00pts

Submissions: 27517

Max Score: 25

Difficulty: Easy

[Rate This Challenge](#)

Rate this challenge.



Need Help?

[Palindrome](#)[More](#)

Current Buffer (saved locally, editable)

C#



```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 class Solution {
5     static void Main(string[] args)
6     {
7
8         int t = int.Parse(Console.ReadLine());
9
10        while (t-- > 0)
11        {
12            string s = Console.ReadLine();
13            int izq = 0, der = s.Length - 1;
14
15            while (izq < der)
16            {
17                if (s[izq] != s[der])
18                {
19                    break;
20                }
21                izq++;
22                der--;
23            }
24
25            string s_copia = s;
26            s_copia = s_copia.Remove(izq, 1);
27            char[] rev_s_copia = s_copia.ToCharArray();
28            Array.Reverse(rev_s_copia);
29
30            if (s_copia == new string(rev_s_copia))
31            {
32                Console.WriteLine(izq);
33            }
34            else
35            {
36                Console.WriteLine(der);
37            }
38        }
39
40        Console.ReadLine();
41    }
42 }
43
44 }
```

Line: 31 Col: 18

[Upload Code as File](#)☐ Test against custom input[Run Code](#)[Submit Code](#)

Congrats, you solved this challenge!



✓ Test Case #0
✓ Test Case #3
✓ Test Case #6
✓ Test Case #9
✓ Test Case #12

✓ Test Case #1
✓ Test Case #4
✓ Test Case #7
✓ Test Case #10
✓ Test Case #13

✓ Test Case #2
✓ Test Case #5
✓ Test Case #8
✓ Test Case #11
✓ Test Case #14

[Next Challenge](#)

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.

[Contest Calendar](#) | [Interview Prep](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)

