Practice Arena

Practice problems aimed to improve your coding skills.

- PRACTICE-02_SCAN-PRINT
- PRACTICE-03_TYPES
- LAB-PRAC-02_SCAN-PRINT
- LAB-PRAC-01
- PRACTICE-04_COND
- BONUS-PRAC-02
- LAB-PRAC-03_TYPES
- PRACTICE-05_COND-LOOPS
- LAB-PRAC-04_COND
- LAB-PRAC-05_CONDLOOPS
- PRACTICE-07_LOOPS-ARR
- LAB-PRAC-06_LOOPS
- LAB-PRAC-07_LOOPS-ARR
- LABEXAM-PRAC-01_MIDSEM
- PRACTICE-09_PTR-MAT
- LAB-PRAC-08_ARR-STR
- PRACTICE-10_MAT-FUN
- LAB-PRAC-09_PTR-MAT
- LAB-PRAC-10_MAT-FUN
- PRACTICE-11_FUN-PTR
- LAB-PRAC-11_FUN-PTR
  - Name the Clones
  - The Race of the Clones
  - Partial Palindrome
  - Growth Curve
  - The Family Tree of Mr C
  - Timely Tasks
  - Plenty of Palindromes
  - Count and Say Sequence
  - Orbiting Indices
  - Zig-zag Numbers
  - Parent Palindrome
  - Leaderboard
- LAB-PRAC-12_FUN-STRUC
- LABEXAM-PRAC-02_ENDSEM
- LAB-PRAC-13_STRUC-NUM
- LAB-PRAC-14_SORT-MISC

Partial Palindrome

LAB-PRAC-11_FUN-PTR

Partial Palindrome [20 marks]

Problem Statement
In the first line of the input, we will give you a string with at most 99 characters. The string will only contain lower-case English alphabet letters. In the first line of the output, you have to print the minimum number of characters that must be appended (i.e. put at the end of the string) to make it a palindrome and in the second line of the output, you have to print the resultant palindrome. If the string given to you is itself a palindrome, print 0 in the first line and the string itself in the second line.

Caution

1. There is no specific need to use recursion to solve this problem. However, you may want to write a modular code with functions to make your solution easier to read and easier to debug.
2. Be careful about extra/missing lines and extra/missing spaces in your output.

EXAMPLE 1:
INPUT
abede

OUTPUT:
2
abedeba

Explanation: the string is itself not a palindrome. Appending a single character can never make it a palindrome since the string abede* is never a palindrome no matter what character we use in place of *. However, if we append two characters, namely b and a, then the string becomes a palindrome.

EXAMPLE 2:
INPUT
mom

OUTPUT:
0
mom

Explanation: the string is itself a palindrome.

Grading Scheme:
Total marks: **[20 Points]**

There will be partial grading in this question. There are two lines in your output. Printing each line correctly, in the correct order, carries 50% weightage. Each visible test case is worth 2 points and each hidden test case is worth 4 points. There are 2 visible and 4 hidden test cases.

Please remember, however, that when you press Submit/Evaluate, you will get a green bar only if all

parts of your answer are correct. Thus, if your answer is only partly correct, Prutor will say that you have not passed that test case completely, but when we do autograding afterwards, you will get partial marks.

Start Solving! (/editor/practice/6217)