## Jutge.org

The Virtual Learning Environment for Computer Programming

## Increasing subsequences

Olimpiada Informática Española - Final 2008 (2008)
Write a program that computes how many strictly increasing subsequences with at least two letters are contained in a given word. For instance, the word arrow (we have written the second r in bold italics to distinguish it) contains the increasing subsequences arw, ar, $a r w, a r, a o w, a o, a w, r w, r w$ and ow.

## Input

Input consists of several cases, each with a word made up of between 1 and 100 lowercase letters.

## Output

For every case, print the number of strictly increasing subsequences with at least two letters contained in the word. That number will always be less than $10^{9}$.

| Sample input | Sample output |
| :--- | :--- |
| arroz | 10 |
| petate | 6 |
| az | 1 |
| za | 0 |
| t | 0 |
| aaaa | 0 |
| abcdefghij | 1013 |
| abcdefghijabcdefghijabcdefghijabcdefghij | 66263 |
| aaaaaaaaabbbbbbbbbbyyyyyyyyyyzzzzzzzzzz | 14600 |

## Problem information

Author: Salvador Roura
Translator: Carlos Molina
Generation : 2024-05-03 09:41:30
© Jutge.org, 2006-2024.
https://jutge.org

