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The Virtual Learning Environment for Computer Programming

## **Increasing subsequences**

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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, arw, ar, aow, ao, aw, rw, rw 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
abcdefghijabcdefghijabcdefghij	66263
$\verb  aaaaaaaaabbbbbbbbbbbyyyyyyyyyzzzzzzzzz  \\$	14600

#### **Problem information**

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