

# Palindromes

You are given a string of lower-case Latin letters. Let us define substring's "occurrence value" as the number of the substring occurrences in the string multiplied by the length of the substring. For a given string find the largest occurrence value of palindromic substrings.

## Input

The only line of input contains a non-empty string  $S$  of lower-case Latin letters (a-z),  $|S| \leq 300,000$ .

## Output

Output one integer – the largest occurrence value of palindromic substrings.

## Example

**Input:**

abacaba

**Output:**

7