Problema 3: String value

Jane loves strings more than anything. She has a string t with her, and value of string s over function f can be calculated as given below:

f(s) = |s| x Number of times s occurs in t

Jane wants to know the maximum value of f(s) among all the substrings (s) of string t. Can you help her?

Input Format

A single line containing string t.

Output Format

Print the maximum value of f(s) among all the substrings (s) of string t.

Constraints

1<= |t| <= 105

The string consists of lowercase English alphabets.

Sample Input 0

aaaaaa

Sample Output 0

12

Explanation 0

f('a') = 6

f('aa') = 10

f('aaa') = 12

f('aaaa') = 12

f('aaaaa') = 10

f('aaaaaa') = 6

Sample Input 1

abcabcddd

Sample Output 1

9

Explanation 1

f values of few of the substrings are shown below:

f("a") = 2

f("b") = 2

f("c") = 2

f("ab") = 4

f("bc") = 4

f("ddd") = 3

f("abc") = 6

f("abcabcddd") = 9

Among the function values, 9 is the maximum one.