

String Function Calculation

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:

$$f(s) = |s| \times \text{Number of times } s \text{ occurs in } t$$

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

$$1 \leq |t| \leq 10^5$$

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.