

E. Ali goes shopping

time limit per test: 5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Ali Koochooloo is going to buy new clothes since we're reaching Noruz, the ancient Persian festival and the beginning of new Persian year.

When Ali entered a shop, he saw that the shopkeeper was a programmer and since there is no money in programming he had changed his career. The shopkeeper told Ali that he can buy anything for free if he could answer a simple question in 10 seconds. But to see the question Ali has to pay 3 tomans.

Ali agreed instantly and the shopkeeper handed him a piece of paper containing the task. The task was indeed very simple. It said:

Let string A be `ababababababab`. Which non-empty substring of A is repeated the most times in it?

Ali answered fast. He said the answer is `a`. But the shopkeeper said that Ali is wrong and asked him to read the rest of statement:

If several substrings have the maximal repeat time, then the substring with maximal length would be the answer, in case of a tie the alphabetically latest substring will be chosen.

So the answer is `ab`.

Now Ali wants us to solve this problem for different strings. We don't have a great advantage over Ali, we just have a computer and a weird language.

Input

The single line consisting of a string A . It is non-empty, made of lower-case Latin letters and contains at most 30 characters.

Output

The single line contains the answer.

Examples

input
<code>abab</code>
output
<code>ab</code>

input
<code>abcd</code>
output
<code>abcd</code>