

Suffix Array

A suffix array is a sorted array of all suffixes of a string. It also can be used to generate a sorted array of all substrings of the fixed length of L . Our goal is to find out the first sub-string of length L in an alphabetical order.

INPUT

There are multiple test cases. Each test case contains a string s (The size of s is at most 1000000) and the length of the substring L in a line.

OUTPUT

For each test case, output the substring.

SAMPLE INPUT

```
abcdefg 4  
babcddefg 4  
bbbbaaa 4  
bababbbaaa 4  
babaaabbabba 4
```

SAMPLE OUTPUT

```
abcd  
abcd  
baaa  
abab  
aaab
```