Problem G
String Stretching
Problem ID: stretching

Start with a string p. Now, create a new string s, like this: Start with the empty string, and insert p. Then, choose some position in the string (including, possibly, the very beginning or the very end), and insert p again. And again. And again.

For example, suppose p is "**hello**". Starting with the empty string, a string s might be generated like this (each new insertion of p is in **bold**):

1.
2. **hello**
3. h**hello**ello
4. hhelloel**hello**lo
5. hhe**hello**lloelhellolo

So, after 5 steps, the string s is **hhehellolloelhellolo**.

Given the final string s, find the shortest string p which could have generated s. If there's more than one with the shortest length, find the one that comes first alphabetically.

Input

Each input will consist of a single test case. Note that your program may be run multiple times on different inputs. Each input consists of a single line with a single string s. The string will consist of only lower case letters, and will be at least 1, and at most 200, characters long.

Output

Output a single line with the string p, which is the shortest possible string that could generate s.

Sample Input 1	Sample Output 1
hhehellolloelhellolo	hello