Alphabetically smallest word   **P84412_en**

Given a string s made up of only lowercase letters, and a natural number k, remove any substring of length k from s so that the result is the lexicographically smallest possible word.

Input

Input consists of several cases, each with s and k. Assume $1 \leq k < |s| \leq 10^4$.

Output

For every case, print the alphabetically smallest word that can be obtained after removing k consecutive letters from s.

Sample input 1

```
abba 1
abba 2
abba 3
zxazyzy 3
```

Sample output 1

```
aba
aa
a
zxay
```

Problem information

Author: Salvador Roura

Generation: 2026-01-25T12:01:55.788Z