Pondo Minimum

time limit per test: 5 seconds
memory limit per test: 976.6 megabytes
input: standard input
output: standard output

points: 100 · problem code: pondominimum · author: jszqlew

Problem Statement

Pondo has an array of integers a of length n as well as an integer k. He wishes to form the array b of length $n - k + 1$ by taking taking all the subarrays of length k and taking their minimums, i.e. $b_i = \min_{0 \le j \le k-1}(a_{i+j})$.

Input Format

Your first line will contain two space-separated integers n and k. Your next line will contain n integers representing a.

Output Format

You should output $n - k + 1$ integers representing b.

Constraints

- $1 \le n \le 10^5$
- $1 \le a_i \le 10^9$

Sample Cases

Input 1

```
10 5
10 9 8 7 6 5 4 3 2 1
```

Output 1

```
6 5 4 3 2 1
```

Input 2

```
10 4
684839257 302743967 551107459 232951579 483565957 241081121 553311714 547334166
25972405 997164454
```

Output 2

```
232951579 232951579 232951579 232951579 241081121 25972405 25972405
```