Maximum in Window

? Ask Doubt

Time-Limit: 1 sec Score: 100.00/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100 Relevant For: AZ-201 AZ-202

Description

You have given an array A of size N and a positive integer K ($\leq N$). A_1, A_2, ..., A_N are the elements of the array.
Let $B_i = max\ (A_i, A_{i+1}, ..., A_{i+K-1})$, for $1 \leq i \leq N - K + 1$.
Find B_i values for all is such that $1 \leq i \leq N - K + 1$.

Input Format

The first line contains T, the number of test cases.
The first line of each test case contains N, the number of integers in an array A and K.
The second line of each test case contains N space-separated integers $A_1, A_2, ..., A_N$.

Output Format

For each test case, print array B as $B_1\ B_2\ ...\ B_{N-K+1}$ in a new line.

Constraints

$1 \leq T \leq 100000$
$1 \leq K \leq N \leq 100000$
$-10^9 \leq A_i \leq 10^9$
Sum of N over all test cases $\leq 5 * 10^5$.

Sample Input 1

Copy

```
4
9 3
1 2 3 1 4 5 2 3 6
5 5
1 -4 3 -3 -9
4 1
-3 1 -8 3
5 2
-1 -1 -1 -1 -1
```

Sample Output 1

Copy

```
3 3 4 5 5 5 6
3
-3 1 -8 3
-1 -1 -1 -1
```

C++14[GCC]

Submit

```
1
```