ARRAYSUB - subarrays

#datastructures #sliding-window-1 #data-structure-1

Given an array and an integer k, find the maximum for each and every contiguous subarray of size k.

Input

the number n denoting number of elements in the array then after a new line we have the numbers of the array and then k in a new line

$n < 10^6$
$k < 10^5$
$1 \le k \le n$

and each element of the array is between 0 and 10^6

(**Edited:** In fact, $n \le 10^5$)

Output

print the output array

Example

```
Input:
9
1 2 3 1 4 5 2 3 6
3

Output:
3 3 4 5 5 5 6
```

Submit solution!

Submit solution!

Added by: priyamehtanit
Date: 2012-02-09
Time limit: 1s
Source limit: 50000B
Memory limit: 1536MB
Cluster: Cube (Intel G860)
Languages: All except: ASM64
Resource: own

Evaluate this problem

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Concept difficulty

easy normal hard extreme

Implementation difficulty

easy normal hard extreme

Recommend!

Own tags

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< Previous 1 2 3 4 5 6 7 8 9 10 11 Next >

sohelr360: 2024-05-20 18:13:56
You can solve it using monotonic queue in O(n).

tobiasveiga: 2023-12-10 13:04:12
n <= 10^5 did not work for me. My solution only got accepted when I used n < 10^6

uditmehra_827: 2023-10-19 04:39:53
do anyone have an approach without using set, multiset, i mean not using advantages of ds like multiset..?

mostafaasey25: 2022-06-26 11:07:58
my solution i hope its help :)
<snip>
[Simes]: No thanks. With 8500+ AC users what makes you think people want this?

Last edit: 2022-06-26 15:48:34

manoj0606: 2022-03-21 13:22:04
Simple solution using policy based ds in c++ :)

yasser1110: 2021-07-23 16:03:48
Really interesting problem. Learned tons from it. Solved it using c++ map. Because its implemented as a red black tree, we have O(logn) inserts, lookups and deletes.

h4ck3rsh4d0w: 2021-06-23 15:52:24
AC in one go (used Max heap)

nitin_20: 2021-05-09 03:48:18
Max of every k element

kimg: 2021-02-10 16:45:56
Simple brutefoce works.
Use max_element in cpp

deerawat: 2021-01-03 10:19:56
Brute force works!

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