

ASK/VIEW DOUBT

SOLUTION

Problem

Result

Kth largest element

Send Feedback

Given an array A of random integers and an integer k, find and return the kth largest element in the array.

Try to do this question in less than O(nlogn) time.

Input Format :

Line 1 : An integer N i.e. size of the array

Line 2 : N integers which are elements of the array, separated by spaces

Line 3 : An integer k

Output Format :

kth largest element

Input Constraints :

1 <= N, Ai, k <= 10^5

Sample Input 1 :

6

9 4 8 7 11 3

2

Sample Output 1 :

9

Sample Input 2 :

8

2 6 10 11 13 4 1 20

4

Sample Output 2 :

10

1

#include<queue>

2

#include <vector>

3

using namespace std;

4

5

int kthLargest (vector<int> input, int n, int k){

6

/* Don't write main().

7

/* Don't read input, it is passed as function argument.

8

/* Return output and don't print it.

9

/* Taking input and printing output is handled automatically.

10

*/

11

priority_queue<int, vector<int>, greater<int>> pq;

12

for(int i=0;i<k;i++){

13

pq.push(input[i]);

14

}

15

16

for(int i=k;i<n;i++){

17

if(input[i]>pq.top()){

18

pq.pop();

19

pq.push(input[i]);

20

}

21

}

22

23

return pq.top();

24

25

}

26

27

28

29

30

31

32

< PREVIOUS

> NEXT

CUSTOM INPUT

SUBMIT SOLUTION