

All Tracks > Algorithms > Sorting > > Problem

Monk and Modulo Based Sorting

Attempted by: 5598 / Accuracy: 81% / Maximum Score: 20 / ★★★☆ 88 Votes

Tag(s): Algorithms, Easy, Merge sort, Sorting

★★★☆ 88 Votes

PROBLEM

EDITORIAL

MY SUBMISSIONS

Monk likes to experiment with algorithms. His one such experiment is using modulo in sorting. He describes an array modulo sorted as:

Given an integer k, we need to sort the values in the array according to their modulo with k. That is, if there are two integers a and b, and a%k < b%k, then a would come before b in the sorted array. If a%k = b%k, then the integer which comes first in the given array remains first in the sorted array.

Given an initial array, you need to print modulo sorted array.

Input:

The first line consists of two integers N and k, N being the number of elements in the array and k is the number with which we need to take the modulo.

The next line consists of N space separated integers, denoting the elements of the array A.

Output:

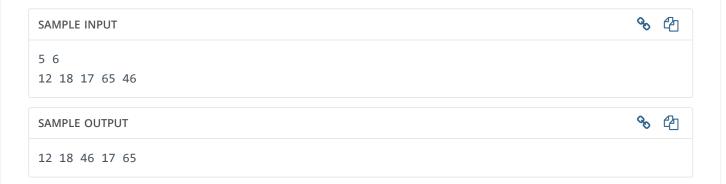
Print the modulo sorted array of the given array.

Constraints:

 $1 < N < 10^4$

 $1 \le k \le 10^9$

 $1 \le A[i] \le 10^9$; $1 \le i \le N$



Explanation

12%6=0

18%6=0

17%6=5

65%6=5

46%6=4

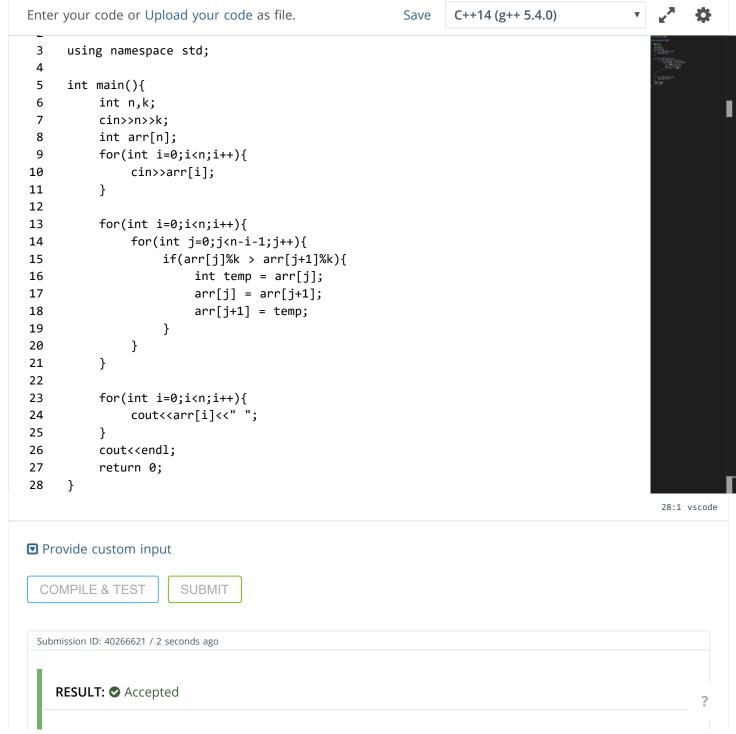
So, the sorted order is: 12 18 46 17 65

12 and 18 have same result on modulo, so, 12 remains first in sorted array as it is first in given array

?



CODE EDITOR



Score 20.0	Time (sec) 1.92214		Memory (KiB) 408		Language C++14			
Input	Result	Time (sec)	Memory (KiB)	Score	Your Output	Correct Output	Diff	13
Input #1	•	0.101772	64	10	(I)	এ		
Input #2	•	0.101645	64	10	Ø	Ø	(p)	
Input #3	•	0.102164	64	10	Ø	Ø	(p)	
Input #4	•	0.102023	64	10	Ø	Ø	(p)	
Input #5	•	0.102203	64	10	Ø	Ø	(p)	
Input #6	•	0.102522	64	10	Ø	Ø	(p)	
Input #7	•	0.101877	64	10	Ø		45	
Input #8	•	0.402389	408	10	Ø	W	(I)	
Input #9	•	0.402731	408	10	Ø	W	(I)	
Input #10	•	0.402815	408	10	(J)	Δħ	(j)	
Compilation Lo	_							
Compliation 3uc	.cessiui.							

Your Rating:

View all comments

PROGRAMMERS WHO SOLVED THIS PROBLEM ALSO SOLVED

Chandu And His Girlfriend ... Attempted By: 5918 / Accuracy: 90 ★★☆☆ 185 Votes

Criminals: Little Deepu An...

Attempted By: 3250 / Accuracy: 52 ★★★☆ 16 Votes

Chandu And His Girlfriend

Attempted By: 8712 / Accuracy: 86

★★☆☆ 227 Votes

For Developers Developer Resources For Company **Business** Practice programming Developers blog About us Assess Learn to code by Complete reference to Press ? competitive programming developers competitive programming

+1-650-461-4192 Competitive coding contact@hackerearth.comchallenges Code Monk Start a programming club in

Developers wiki How to conduct a hackathon

Conduct remote Careers interviews Contact

Assess us university talent

Technical

Organize

hackathon

support

▼ | © 2020 HackerEarth All rights reserved | Terms of Service | Privacy Policy Site Language: English