All Contests > SRIN AADC (Advanced Algorithm Developer Challange) - 05 > Superhuman (Gravity Control)

Superhuman (Gravity Control)

Problem

Submissions

Leaderboard

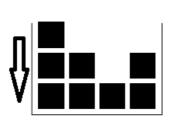
Discussions

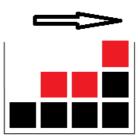
Just say, you are a superhuman and can control the gravity. What will you do?

Well, what about you use your power to play with boxes.

There are N columns of boxes in the room arranged in a line. The i-th column contains a_i boxes. At first, the gravity in the room is pulling the boxes downwards. When you switch the gravity, it begins to pull all the boxes to the right side of the room.

The figure shows the initial and final configurations of the boxes in the room: the boxes that have changed their position are highlighted with red.





Q Search

Input Format

First line will contains N. The next line contains N space-separated integer numbers. The i-th number a_i denotes the number of boxes in the i-th column.

Constraints

 $1 \le N \le 10^5$

 $1 \le a_i \le 10^9$

Output Format

Output N integer numbers separated by spaces, where the i-th number is the amount of boxes in the i-th column after the gravity switch.

Sample Input

3 2 1 2

Sample Output

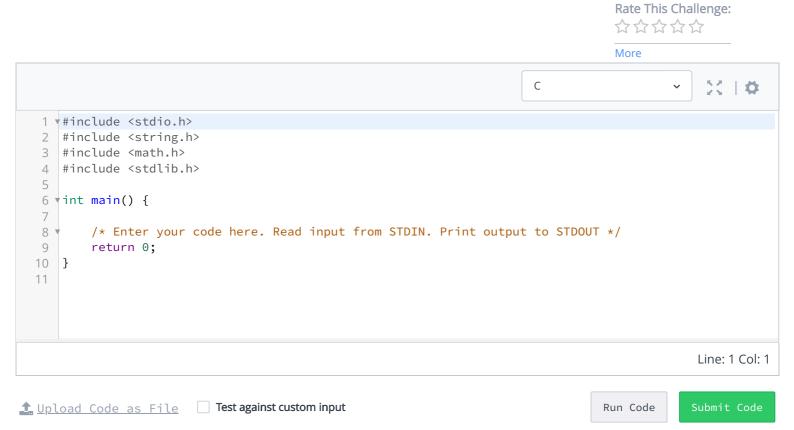
1 2 2 3

Explanation









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