

T 121 - Alternating Elements

Problem

Submissions

Given an array of integers, sort the array into a wave like array and return it. In other words, arrange the elements into a sequence such that $a_1 \geq a_2 \leq a_3 \geq a_4 \leq a_5 \dots$

Example

Given [1, 2, 3, 4]

One possible answer : [2, 1, 4, 3]

Another possible answer : [4, 1, 3, 2]

NOTE : If there are multiple answers possible, return the one that's lexicographically smallest. So, in example case, you will return [2, 1, 4, 3]

Input Format

Solved: 716
Attempted: 722

First line contains number of elements in the array.

Second line contains N integers, the elements of the array.

Constraints

$1 \leq N \leq 10^5$

$1 \leq \text{Array}[i] \leq 10^5$

All elements in the array will be distinct.

Solved: 592
Attempted: 594

Output Format

Output N integers, the lexicographically smallest wave array.

Sample Input 0

```
4
1 2 3 4
```

Sample Output 0

```
2 1 4 3
```



Contest ends in 1 day 6 hours 53 minutes 15 seconds

Submissions: 579

Max Score: 50

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Python 3



```
1 def pattern(temp):
2     temp.sort()
3     for i in range(0, (len(temp)-1), 2):
4         temp[i], temp[i+1] = temp[i+1], temp[i]
```

```
5     return temp
6 n = int(input())
7 numbers = list(map(int, input().strip().split(' ')))
8 print (*pattern(numbers))
9
```

Line: 9 Col: 1

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