

Find the treasure

Shreyansh finds a mysterious book that demands a strange sequence of numbers to decipher the location of a treasure. He comes to you for help. Can you help him?

A permutation of length n is an array consisting of n distinct integers from 1 to n in arbitrary order. For example, $[2,3,1,5,4]$ is a permutation, but $[1,2,2]$ is not a permutation (2 appears twice in the array) and $[1,3,4]$ is also not a permutation ($n=3$ but there is 4 in the array).

You are given a permutation of length n .
You need to print the series of those n numbers in the form of smallest, largest first followed by second smallest, second largest, and so on.

For example :
Given sequence : 2 5 6 4 7 3 1
Output : 1 7 2 6 3 5 4

Input Format

- First-line will contain T , the number of test cases. Then the test cases follow.
- Each test case contains 2 lines of input.
- The first line of each test case contains a single integer n - the length of the permutation.
- The second line of each test case contains n integers p_1, p_2, \dots, p_n ($1 \leq p_i \leq n$). It is guaranteed that p is a permutation.

Constraints

- $1 \leq T \leq 10$
- $1 \leq n \leq 10^6$

Output Format

For each test case, output n integers in the given format .

Sample Input 0

```
2
7
2 5 6 4 7 3 1
6
6 4 5 2 3 1
```

Sample Output 0

```
1 7 2 6 3 5 4
1 6 2 5 3 4
```