

## Problem E. zig-zag-sequence

OS Linux

In this challenge, the task is to debug the existing code to successfully execute all provided test files.

Given an array of  $n$  distinct integers, transform the array into a zig zag sequence by permuting the array elements. A sequence will be called a zig zag sequence if the first  $k$  elements in the sequence are in increasing order and the last  $k$  elements are in decreasing order, where  $k = (n + 1)/2$ . You need to find the *lexicographically smallest* zig zag sequence of the given array.

**Example.**

$a = [2, 3, 5, 1, 4]$

Now if we permute the array as  $[1, 4, 5, 3, 2]$ , the result is a zig zag sequence.

Debug the given function `findZigZagSequence` to return the appropriate zig zag sequence for the given input array.

**Note:** You can modify at most *three* lines in the given code. You cannot add or remove lines of code.

To restore the original code, click on the icon to the right of the language selector.

### Input Format

The first line contains  $t$  the number of test cases. The first line of each test case contains an integer  $n$ , denoting the number of array elements. The next line of the test case contains  $n$  elements of array  $a$ .

### Constraints

$$1 \leq t \leq 20$$

$$1 \leq n \leq 10000 \text{ (} n \text{ is always odd)}$$

$$1 \leq a_i \leq 10^9$$

### Output Format

For each test cases, print the elements of the transformed zig zag sequence in a single line.

Input	Output
1 7 1 2 3 4 5 6 7	1 2 3 7 6 5 4