9. Status Arrays

Program Name: Status.java Input File: status.dat

The status of each element of an array of integers can be determined by its position in the array and the value of the other elements in the array. The status of an element `e` in an array of size `n` is determined by adding the position `p`, 1 <= `p` <= `n`, of the element in the array to the number of array elements in the array that are less than `e`.

For example, consider the array containing the integers: `6 9 3 8 2 3 1`. The status of the element 8 is 9 because its position is 4 and there are 5 elements in the array that are less than 8.

Input
The first line of input will contain a single integer `n` that indicates the number of arrays to follow. Each of the following `n` lines will contain the elements of a single array. Each element will be an integer and the elements will be separated by a single space.

Output
You will print the elements of the original array from low to high status order. In the event there is a tie for status of two or more elements, you will output them in numerical order, if possible. For example, the array elements given above, `6 9 3 8 2 3 1`, have statuses 5, 8, 5, 9, 6, 8, 7 respectively. Therefore the output will be `3 6 2 1 3 9 8`.

Note: If two or more elements have the same status and the same value, either can be printed first.

Example Input File
```
3
6 9 3 8 2 3 1
14 -3 4 6 9 10 -2 4 0
5 5 5 8 7 -2 -2 -3 1 9 8 3 -3 4 -4 6
```

Example Output to Screen
```
3 6 2 1 3 9 8
-3 4 -2 6 14 0 4 9 10
-3 -2 5 -2 5 5 -3 1 -4 7 8 3 4 8 9 6
```