In this problem, you have to print the array after each iteration of the **insertion sort**, i.e., whenever the next element is placed at its correct position.

Since the array composed of just the first element is already "sorted", begin printing from the second element and on.

Input Format
There will be two lines of input:

- N - the size of the array
- A - a list of numbers that makes up the array

Output Format
On each line, output the entire array at every iteration.

Sample Input

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

Sample Output

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