Bubble Sort

FatalEagle is playing with N blocks with each with a distinct number T $(0 \le T \le 256)$ on them. He is trying to learn how to sort the blocks in ascending order with bubble sort. He would like you to show him the steps to sort his blocks. Click here for a description of bubble sort.

Input Specification

The first line will have the integer N $(0 \le N \le 20)$.

The next line have N integers, each separated with a space.

Output Specification

Print the initial block sequence, then after each time bubble sort swaps two elements, print the current block sequence.

Sample Input 1

```
2
2 1
```

Sample Output 2

```
2 1
1 2
```

Sample Input 2

```
6
9 1 2 6 4 7
```

Sample Output 2

```
9 1 2 6 4 7
1 9 2 6 4 7
1 2 9 6 4 7
1 2 6 9 4 7
1 2 6 4 9 7
1 2 6 4 7 9
1 2 4 6 7 9
```