Bubble Sort

Time limit: 1.0s **Memory limit:** 64M

FatalEagle is playing with N blocks, each with a distinct number T ($0 \le T \le 256$) on it. 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 will 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

Sample Output 1

2 1

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 6 7 9