Pure Insertion Sort

You are given an array of integers in any order. Sort the elements of given array in ascending order using Insertion sort.

Input Format

The first line contains an integer, n , the size of the array

The second line contains n space-separated integers a[i].

Constraints

2<=n<=600 1<=a[i]<=2*10^6

Output Format

Space separated elements of array sorted in ascending order are printed in first line Print number of comparisons space number of swaps in next line

Sample Input 0

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5
1 2 3 4 5
```

Sample Output 0

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1 2 3 4 5
10 0
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