

Task 2: Sort

Mr. Panda has managed to infiltrate into the NUS servers and plans to get information about the N questions in the upcoming NOI. Unfortunately, Mr. Panda's skills are not good enough to get the questions themselves. However, he is able to get information about the difficulty of each question. He also can change the order the questions that will come out for the actual NOI. Currently, the questions are not sorted in order of difficulty. To make his life easier, he would like to sort the questions in increasing order of difficulty from easiest to hardest.

Input format

Your program must read from standard input.

The first line of input contains a single integer N.

The next N lines of input will each contain one integer where the integer on the i-th line represents the difficulty of the i-th problem, 1 being the easiest and 10^9 being the hardest.

Output format

Your program must print to standard output.

Your program should print N lines with one integer each where the integer on the i-th line is the difficulty of the i-th easiest problem.

Subtasks

The maximum execution time on each instance is 1.0s.

For all subtasks, the difficulty of the problem will be between 1 and 10^9 inclusive.

Your program will be tested on sets of input instances as follows:

Subtask	Marks	Limits
1	12	N=2
2	32	$1 \le N \le 1000$
3	56	$1 \le N \le 100000$



Sample Testcase 1

This testcase is valid for all subtasks.

Input	Output
2	1
1	2
2	

Sample Testcase 2

This testcase is valid for subtasks 2-3.

Input	Output
5	187
293876	9876
100000000	13456
13456	293876
187	100000000
9876	