

# Quick Sort

Develop the Quick Sort algorithm on an integer list.

## Input

- The first line is an integer  $N$  ( $1 \leq N \leq 10^5$ ), the number of integers.
- The  $i^{\text{th}}$  line of the next  $N$  lines contains the integer ( $0 \leq n_i \leq 10^9$ ).

## Output

Output  $N$  rows, each row contains the integer in an ascending order.

## Sample

Input	Output
5	0
5	1
4	3
1	4
0	5
3	