Problem D. MIN MAX

Time limit   5000 ms

Mem limit   262144 kB

OS   Windows

You are giving n numbers you need to print the maximum and the minimum element of these numbers

Input

The first line contains the number n ($1 \leq n \leq 10^6$).

The second line contains n numbers each number called x ($0 \leq x \leq 10^18$)

Output

print the maximum and the minimum element of these numbers

Examples

Input	Output
6 4 2 1 9 10 0	10 0