Array Minimum

Given an array of **n** integers, find the value of its minimum element.

Input

Each test case is described in two lines. The first line contains **n**, the size of the array ($1 <= $ **n** $<= 10^6$). The second line contains **n** integers separated by one or more spaces. Each integer in the array will be between -10^9 and 10^9, inclusive.

The last line of the input contains a single 0 and should not be processed.

Output

For each test case, write the minimum element in the array on a single line.

Example

Input:
```
4
1 2 3 4
2
-1 0
3
-1000000000 0 1000000000
0
```

Output:
```
1
-1
-1000000000
```

(Problem is inspired by MAXINARR)