

Maximum element of an array

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

Input

The input consists of several test cases.

Each test case is described in two lines. The first line contains n , the size of the array ($1 \leq n \leq 10^6$). 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 maximum element in the array on a single line.

Example

Input:

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

Output:

```
4
0
1000000000
```