

# Find the maximum difference

Given an integer array whose length is  $n$ . Find the maximum value of  $a_j - a_i$  for all  $0 \leq i < j < n$ .

## Input

- The first line contains an integer  $n$  representing the number of elements in the array ( $1 \leq n \leq 10^5$ ).
- The second line contains  $n$  integers which are elements of the array ( $|a_i| \leq 2 \cdot 10^9$ ).

## Output

An only integer which is the maximum difference.

## Sample

Input	Output
5 2 4 1 5 3	4
6 10 5 4 3 2 1	0