



Prefix Reverse

Rezwan has an array a consisting of n integers: $a[1], a[2], \dots, a[n]$. He would like to perform the operation described below **exactly once** on the array:

- Choose an integer i ($1 \leq i \leq n$) and reverse the order of the first i elements of the array.

For example, if the array is $[1, 2, 3, 4, 5]$ and Rezwan has chosen to reverse the order of the first 3 elements, then the resulting array becomes $[3, 2, 1, 4, 5]$.

Rezwan likes big numbers at the end of his array. So, he would like to know the maximum number he could get at the end of his array, if he performs the operation **exactly once**.

Input

Read the input from the standard input in the following format:

- line 1: n
- line 2: $a[1] \ a[2] \ \dots \ a[n]$

Output

Write the output to the standard output in the following format:

- line 1: the maximum number Rezwan can get at the end of his array, if he performs the operation **exactly once**.

Constraints

- $1 \leq n \leq 100\,000$
- $1 \leq a[i] \leq 10^9$ (for all $1 \leq i \leq n$)

Subtasks

- (50 points) $n \leq 1000$
- (50 points) No further constraints.

Examples

Example 1

```
5
1 2 3 4 50
```

The correct output is:

```
50
```

Example 2

```
4
4 1 2 4
```

The correct output is:

```
4
```