C. Thirsty Flowers

In a flower bed, there are *N* flowers, numbered *1, 2, …, N.* Initially, the heights of all flowers are *0*. You are given a sequence *h= {h1, h2, h3, ...}* as input. You would like to change the height of Flower *k* to *hk* for all *k (1 ≤ k ≤ N)*, by repeating the following "watering" operation:

- Specify integers *l* and *r*. Increase the height of Flower *x* by *1* for all *x* such that *l ≤ x ≤ r*.

Find the minimum number of watering operations required to satisfy the condition.

Constraints

- *1 ≤ N ≤ 100*
- *0 ≤ hi ≤ 100*
- *All values in input are integers.*

Input

Input is given from Standard Input in the following format:

```
N

h1 h2 h3 .... hN
```

Output

Print the minimum number of watering operations required to satisfy the condition.

Sample 1:

Input	Output
4 1 2 2 1	2

The minimum number of watering operations required is 2. One way to achieve it is:

- Perform the operation with (l, r) = (1,3).
- Perform the operation with (l, r) = (2,4).

Sample 2:

Input	Output
5 3 1 2 3 1	5