

# Bottle Necks Problem

## ➤ Problem Description

There are  $N$  bottles.  $i$ th bottle has  $A[i]$  radius. Once a bottle is enclosed inside another bottle, it ceases to be visible. Minimize the number of visible bottles.

You can put  $i$ th bottle into  $j$ th bottle if following condition is fulfilled:

- 1)  $i$ th bottle itself is not enclosed in another bottle.
- 2)  $j$ th bottle does not enclose any other bottle.
- 3) Radius of bottle  $i$  is smaller than bottle  $j$  (i.e.  $A[i] < A[j]$ ).

## Constraints

$1 \leq N \leq 100000$ .

$1 \leq A[i] \leq 10^{18}$ .

## Input Format

First line contains a single integer  $N$  denoting the number of bottles.

Second line contains  $N$  space separated integers,  $i$ th integer denoting the radius of  $i$ th bottle.

( $1 \leq i \leq N$ ).

## Output

Minimum number of visible bottles.

# Test Case

Explanation

Example 1

Input

8

1 1 2 3 4 5 5 4

Output

2

Explanation

1st bottle can be kept in 3rd one  $1 \rightarrow 2$ , which makes following bottles visible [1,2,3,4,5,5,4]

similarly after following operations, the following will be the corresponding visible bottles

Operation ? Visible Bottles

2 ? 3 [1,3,4,5,5,4]

3 ? 4 [1,4,5,5,4]

4 ? 5 [1,5,5,4]

1 ? 4 [5,5,4]

4 ? 5 [5,5]

finally there are 2 bottles which are visible. Hence, the answer is 2