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# G. Ranges Every Where

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Given an array A that contains N distinct integers  $A_1, A_2, ..., A_N$ .

A range is a finite set of consecutive integers. Formally, for any two positive integers,  $a \le b$  the range [a, b] is defined to be the set of all integers that lies between a and b inclusive. For example,  $[3, 3] = \{3\}$  and  $[4, 7] = \{4, 5, 6, 7\}$ .

We want to represent the given array A as a union of some ranges. Print the minimum number of ranges you need to represent the array A.

#### Input

The first line will contain one integer  $N(1 \le N \le 10^6)$  – the size of the array.

Second line will contain N distinct integers  $(1 \le A_i \le 10^9)$  — the values of the array.

#### **Output**

Print the minimum number of ranges you need to represent the given array A.

## **Examples**



## **Note**

Second test case:

This set of integers can be represented as a union of these four ranges: [2, 2], [4, 6], [8, 12], and [15, 15].

# ICPC Assiut Advanced Newcomers 2023

#### **Private**

# Participant



## → Group Contests



- ICPC Assiut Advanced Newcomers 2023 Contest 5
- ICPC Assiut Advanced Newcomers 2023 Contest 4
- ICPC Assiut Advanced Newcomers 2023 Contest 3
- ICPC Assiut Advanced Newcomers Practice #1
- ICPC Assiut Advanced Newcomers 2023 Contest 2
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- ICPC Assiut Advanced Newcomers 2023 Contest 1
- ICPC Assiut Advanced Newcomers 2023 Onsite Contest 1

## ICPC Assiut Advanced Newcomers 2023 Contest 1

## **Finished**

## **Practice**

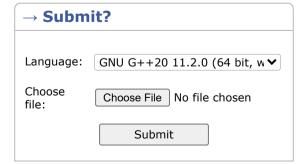


## → Virtual participation



Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest



→ Last submissions		
Submission	Time	Verdict
214678467	Jul/21/2023 03:15	Accepted