# Counting

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|---|---|
| Input file: | `standard input` |
| Output file: | `standard output` |
| Time limit: | 1 second |
| Memory limit: | 1024 megabytes |

Little L has a non-negative integer array $a = [a_1, a_2, \ldots, a_n]$ of length $n$. The elements in the array may repeat, and each element can be any non-negative integer (that is, $a_i \geq 0$, with no upper bound). Little L chooses an unknown positive integer $m$, and performs a modulo operation on every element of array $a$, obtaining a new array $b$, where $b_i = a_i \bmod m$.

Now Little L tells you the array $b$, but both the original array $a$ and the modulus $m$ are unknown. He wants to know: among all possible original arrays $a$ and modulus $m$, how many different values can its mex take?

The definition of mex: the smallest non-negative integer that does not appear in the array. For example, $\text{mex}\{0, 1, 3\} = 2$, and $\text{mex}\{1, 2, 3\} = 0$.

## Input

The first line contains an integer $n$ ($1 \leq n \leq 10^5$), the length of the array.

The second line contains $n$ integers $b_1, b_2, \ldots, b_n$ ($0 \leq b_i \leq 10^9$), representing the array $b$ given by Little L.

## Output

Output an integer representing the number of possible values of mex of the original array $a$.

## Example

| standard input | standard output |
|---|---|
| 6<br>0 1 2 3 1 2 | 5 |

## Note

For the example, all possible mex values are $\{0, 1, 2, 3, 4\}$. For example, when mex $= 3$, one possible construction is $m = 5$, $a = \{0, 1, 2, 8, 6, 7\}$.