

## E. Colored Balls

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

There are  $n$  boxes with colored balls on the table. Colors are numbered from 1 to  $n$ .  $i$ -th box contains  $a_i$  balls, all of which have color  $i$ . You have to write a program that will divide all balls into sets such that:

- each ball belongs to exactly one of the sets,
- there are no empty sets,
- there is no set containing two (or more) balls of different colors (each set contains only balls of one color),
- there are no two sets such that the difference between their sizes is greater than 1.

Print the minimum possible number of sets.

### Input

The first line contains one integer number  $n$  ( $1 \leq n \leq 500$ ).

The second line contains  $n$  integer numbers  $a_1, a_2, \dots, a_n$  ( $1 \leq a_i \leq 10^9$ ).

### Output

Print one integer number — the minimum possible number of sets.

### Examples

input
3 4 7 8
output
5

input
2 2 7
output
4

### Note

In the first example the balls can be divided into sets like that: one set with 4 balls of the first color, two sets with 3 and 4 balls, respectively, of the second color, and two sets with 4 balls of the third color.