

# A. Fox and Number Game

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

Fox Ciel is playing a game with numbers now.

Ciel has  $n$  positive integers:  $x_1, x_2, \dots, x_n$ . She can do the following operation as many times as needed: select two different indexes  $i$  and  $j$  such that  $x_i > x_j$  hold, and then apply assignment  $x_i = x_i - x_j$ . The goal is to make the sum of all numbers as small as possible.

Please help Ciel to find this minimal sum.

## Input

The first line contains an integer  $n$  ( $2 \leq n \leq 100$ ). Then the second line contains  $n$  integers:  $x_1, x_2, \dots, x_n$  ( $1 \leq x_i \leq 100$ ).

## Output

Output a single integer — the required minimal sum.

## Examples

input
2 1 2
output
2

input
3 2 4 6
output
6

input
2 12 18
output
12

input
5 45 12 27 30 18
output
15

## Note

In the first example the optimal way is to do the assignment:  $x_2 = x_2 - x_1$ .

In the second example the optimal sequence of operations is:  $x_3 = x_3 - x_2$ ,  $x_2 = x_2 - x_1$ .