

## 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  $x_j = x_i - x_j$ . 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

<b>input</b>
2 1 2
<b>output</b>
2
<b>input</b>
3 2 4 6
<b>output</b>
6
<b>input</b>
2 12 18
<b>output</b>
12
<b>input</b>
5 45 12 27 30 18
<b>output</b>
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:  $x_3 = x_3 - x_2$ ,  $x_2 = x_2 - x_1$ .

### Codeforces Round #228 (Div. 2)

Finished

### → Virtual participation

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Start virtual contest

### → Problem tags

greedy math

No tag edit access

### → Contest materials

- Announcement 
- Tutorial 