Ada and Primal Fear

As you might already know, Ada the Ladybug is a farmer. She grows many vegetables. During past months, her crop was attacked by colony of parasites. Each vegetable was attacked by $\mathbf{A_i}$ parasites. Ada has only limited answer for this. She bought a few bottles with **Primal Fear**, which is a mixture agains parasites.

Primal Fear works in following way: Each **Primal Fear** bottle has a power assigned to it (which is coincidentally a prime number). If it is applied to a vegetable with **N** parasites on it, either the **N** is divisible by its **power**, then the size of colony is reduced to **N**/**power**, or - if the size is not divisible - then it has no effect. Also, as soon as you apply mixture against a colony, the rest of colony will become immune agains **Primal Fear**.

Ada didn't know what to buy so she bought one bottle of every possible **power**. Can you find out the best strategy to fight agains parasites?

Input

The first line of input will contain $\mathbf{1 \leq N \leq 1000}$, the number of vegetable.

The line will contain **N** numbers $\mathbf{1 \leq A_i \leq 2000}$, the size of colony on $\mathbf{i^{th}}$ vegetable.

Output

Print the minimum sum of sizes of colonies which could be achieved after applying **Primal Fear** optimally.

Example Input

```
3
2 8 6
```

Example Output

```
8
```

Example Input

```
4
6 6 6 6
```

Example Output

```
17
```

Example Input

```
3
```

7 4 22

Example Output

5

Example Input

3
11 22 17

Example Output

13

Example Input

2
77 11

Example Output

12