

Can you solve it

One day , Palak challenged Rishabh with a problem to test his skills. She gave him 2 hrs. But Rishabh had a meeting to attend with someone important. Can you solve the problem on his behalf:

Given an array **A** of size **N** , find the maximum size subset such that every 2 elements are coprime.

Two numbers **x** and **y** are said to be coprime when $\text{gcd}(x,y) = 1$, where **gcd** is the greatest common divisor.

Input

There is a single integer **N** in first line which denotes size of array.

The second line contains **N** space separated integers which are the elements of the array **A**.

Output

Print the size of the largest subset such that every 2 elements is coprime.

Constraints

$1 \leq N \leq 100$

$1 \leq A_i \leq 100$

Example

Input:

3
1 13 26

Output:

2