

Sum of Something

You are given an array **a** consisting of **n** integers. You need to find the **sum** of all the **common divisors** between the given integers.

For example: suppose the given numbers are **4**, **6** and **8**. The common divisors between them are 1 and 2. So the answer will be **3**.

Input

The first line of the input will contain the number of test cases **t** ($1 \leq t \leq 10$).

For each test case, there will be two lines of input. First-line will contain the number of integers in the array **n** ($1 \leq n \leq 10^5$). The following line will contain the **n** integers **a[1], a[2], a[3], ..., a[n]** ($1 \leq a[i] \leq 10^9$) where **a[i]** is the **i**-th element of the array **a**.

Output

For every test case print just one integer in a new line, the **sum** of all the **common divisors** between the given integers.

Sample input:

```
3
3
4 6 8
2
15 13
1
5
```

Sample output:

```
3
1
6
```