



1

Minimum Deletion

2

You are given a sequence A of length N consisting only positive integers (A_1, A_2, \dots, A_N) . You have to delete the minimum number of elements from the sequence A to make it a good sequence.

A sequence B is said to be good if, The occurrence of each element x of the sequence B is divisible of a common positive number v ($v > 1$).

For example: (1, 1, 2, 2, 2, 2, 4, 4) is a good sequence because the occurrence of each element is divisible by 2. While sequence (1, 1, 3, 3, 3) is not a good sequence because there are no common positive integers that divide the occurrence of each element.

Input Format:

First-line consists of a single integer T denoting the total number of test cases. For each test case, the following two lines are given. First-line consists of an integer N denoting the size of the sequence A . Second-line will contain N space-separated integers (A_1, A_2, \dots, A_N) .

Output Format:

For each test case print a single line with the value denoting the minimum number of elements that we have to remove to make sequence A to a good sequence.

**Constraints:**

$$1 \leq T \leq 10$$

$$1 \leq N \leq 10^3$$

$$1 \leq A_i \leq 10^9$$

1

2

Sample input

```
2
8
1 1 2 2 2 2 4 4
5
1 1 3 3 3
```



Sample output

```
0
1
```

2

Explanation

In the first test case,

Since the sequence is already good, We do not need to delete any element. So the answer will be 0.

In the second test case,

If delete one 3 from the sequence will become (1, 1, 3, 3) which is good because the occurrence of each element is divisible by 2. So the answer will be 1.

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1

2

```
4
9
6 1 1 7 6 3 6 6 5
14
3 6 5 1 5 1 3 4 3 4 4 7 1 1
13
1 4 3 1 3 2 5 1 2 4 6 3 2
4
7 3 5 3
```

```
3
4
4
2
```

Sample Input 2 [↗](#)

```
5
15
2 1 3 5 2 3 5 5 6 7 4 5 6 7 6
5
5 7 1 3 5
2
5 2
13
2 2 6 6 1 6 7 2 7 4 1 2 7
9
```

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Sample output 2

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```
3
3
2
3
3
```