D. Divisible Pairs

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Polycarp has two favorite integers x and y (they can be equal), and he has found an array a of length n.

Polycarp considers a pair of indices $\langle i, j \rangle$ $(1 \le i < j \le n)$ *beautiful* if:

- $a_i + a_j$ is divisible by x;
- $a_i - a_j$ is divisible by y.

For example, if $x = 5$, $y = 2$, $n = 6$, $a = [1, 2, 7, 4, 9, 6]$, then the only *beautiful* pairs are:

- $\langle 1, 5 \rangle$: $a_1 + a_5 = 1 + 9 = 10$ (10 is divisible by 5) and $a_1 - a_5 = 1 - 9 = -8$ (-8 is divisible by 2);
- $\langle 4, 6 \rangle$: $a_4 + a_6 = 4 + 6 = 10$ (10 is divisible by 5) and $a_4 - a_6 = 4 - 6 = -2$ (-2 is divisible by 2).

Find the number of *beautiful* pairs in the array a.

Input

The first line of the input contains a single integer t $(1 \le t \le 10^4)$ — the number of test cases. Then the descriptions of the test cases follow.

The first line of each test case contains three integers n, x, and y $(2 \le n \le 2 \cdot 10^5$, $1 \le x, y \le 10^9)$ — the size of the array and Polycarp's favorite integers.

The second line of each test case contains n integers $a_1, a_2, \ldots, a_n$ $(1 \le a_i \le 10^9)$ — the elements of the array.

It is guaranteed that the sum of n over all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, output a single integer — the number of *beautiful* pairs in the array a.

Example

input

```
7
6 5 2
1 2 7 4 9 6
7 9 5
1 10 15 3 8 12 15
9 4 10
14 10 2 2 11 11 13 5 6
9 5 6
10 7 6 7 9 7 7 10 10
9 6 2
4 9 7 1 2 2 13 3 15
9 2 3
14 6 1 15 12 15 8 2 15
10 5 7
13 3 3 2 12 11 3 7 13 14
```

output

```
2
```

```
0
1
3
5
7
0
```