



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 $\langle i, j \rangle$ ($1 \leq i < j \leq n$) *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 ($1 \leq t \leq 10^4$) — 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 ($2 \leq n \leq 2 \cdot 10^5$, $1 \leq x, y \leq 10^9$) — the size of the array and Polycarp's favorite integers.

The second line of each test case contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^9$) — 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	Copy
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	Copy
2	

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Finished

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