D. Counting Pairs

time limit per test: 2 seconds
memory limit per test: 256 megabytes

You are given a sequence a, consisting of n integers, where the i-th element of the sequence is equal to a_i. You are also given two integers x and y ($x \leq y$).

A pair of integers (i, j) is considered *interesting* if the following conditions are met:

- $1 \leq i < j \leq n$;
- if you simultaneously remove the elements at positions i and j from the sequence a, the sum of the remaining elements is at least x and at most y.

Your task is to determine the number of *interesting* pairs of integers for the given sequence a.

Input

The first line contains one integer t ($1 \leq t \leq 10^4$) — the number of test cases.

Each test case consists of two lines:

- The first line contains three integers n, x, y ($3 \leq n \leq 2 \cdot 10^5$, $1 \leq x \leq y \leq 2 \cdot 10^{14}$);
- The second line contains n integers $a_1, a_2, \ldots, a_n$ ($1 \leq a_i \leq 10^9$).

Additional constraint on the input: the sum of n across all test cases does not exceed $2 \cdot 10^5$.

Output

For each test case, output one integer — the number of *interesting* pairs of integers for the given sequence a.

Example

input Copy

```
7
4 8 10
4 6 3 6
6 22 27
4 9 6 3 4 5
3 8 10
3 2 1
3 1 1
2 3 4
3 3 6
3 2 1
4 4 12
3 3 2 1
6 8 8
1 1 2 2 2 3
```

output Copy

```
4
7
0
0
1
5
6
```

Note

In the first example, there are 4 *interesting* pairs of integers:

1. $(1, 2)$;
2. $(1, 4)$;
3. $(2, 3)$;
4. $(3, 4)$.

Codeforces Round 995 (Div. 3)
Finished
Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
298722284	Dec/27/2024 22:00	Accepted

→ Problem tags

binary search sortings two pointers *1200

No tag edit access

→ Contest materials

- Announcement
- Tutorial