

Problem F. Sum is ____ or Equal

Time limit 2000 ms
Mem limit 262144 kB

You are given an array a of n integers. Find the number of pairs (i, j) ($1 \leq i < j \leq n$) where the sum of $a_i + a_j$ is greater than or equal to l and less than or equal to r (that is, $l \leq a_i + a_j \leq r$).

For example, if $n = 3$, $a = [5, 1, 2]$, $l = 4$ and $r = 7$, then two pairs are suitable:

- $i = 1$ and $j = 2$ ($4 \leq 5 + 1 \leq 7$);
- $i = 1$ and $j = 3$ ($4 \leq 5 + 2 \leq 7$).

Input

The first line contains an integer t ($1 \leq t \leq 10^4$). Then t test cases follow.

The first line of each test case contains three integers n, l, r ($1 \leq n \leq 2 \cdot 10^5, 1 \leq l \leq r \leq 10^9$) — the length of the array and the limits on the sum in the pair.

The second line contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^9$).

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

Output

For each test case, output a single integer — the number of index pairs (i, j) ($i < j$), such that $l \leq a_i + a_j \leq r$.

Sample 1

Input	Output
4	2
3 4 7	7
5 1 2	0
5 5 8	1
5 1 2 4 3	
4 100 1000	
1 1 1 1	
5 9 13	
2 5 5 1 1	