Problem A. Element Swapping

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

DreamGrid has an integer sequence $a_1, a_2, \ldots, a_n$ and he likes it very much. Unfortunately, his naughty roommate BaoBao swapped two elements a_i and a_j $(1 \le i < j \le n)$ in the sequence when DreamGrid wasn't at home. When DreamGrid comes back, he finds with dismay that his precious sequence has been changed into $a_1, a_2, \ldots a_{i-1}, a_j, a_{i+1}, \ldots, a_{j-1}, a_i, a_{j+1}, \ldots, a_n$!

What's worse is that DreamGrid cannot remember his precious sequence. What he only remembers are the two values

$$x = \sum_{k=1}^{n} k a_k \qquad \text{and} \qquad y = \sum_{k=1}^{n} k a_k^2$$

Given the sequence after swapping and the two values DreamGrid remembers, please help DreamGrid count the number of possible element pairs (a_i, a_j) BaoBao swaps.

Note that as DreamGrid is poor at memorizing numbers, the value of x or y might not match the sequence, and no possible element pair can be found in this situation.

Two element pairs (a_i, a_j) $(1 \le i < j \le n)$ and (a_p, a_q) $(1 \le p < q \le n)$ are considered different if $i \ne p$ or $j \ne q$.

Input

There are multiple test cases. The first line of the input contains an integer T, indicating the number of test cases. For each test case:

The first line contains three integers n, x and y $(2 \le n \le 10^5, 1 \le x, y \le 10^{18})$, indicating the length of the sequence and the two values DreamGrid remembers.

The second line contains n integers $b_1, b_2, \ldots, b_n$ $(1 \le b_i \le 10^5)$, indicating the sequence after swapping. It's guaranteed that $\sum_{k=1}^{n} k b_k \le 10^{18}$ and $\sum_{k=1}^{n} k b_k^2 \le 10^{18}$.

It's guaranteed that the sum of n of all test cases will not exceed 2×10^6.

Output

For each test case output one line containing one integer, indicating the number of possible element pairs BaoBao swaps.

Example

standard input	standard output
2 6 61 237 1 1 4 5 1 4 3 20190429 92409102 1 2 3	2 0

Note

For the first sample test case, it's possible that BaoBao swaps the 2nd and the 3rd element, or the 5th and the 6th element.