

A. Points on Line

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

Little Petya likes points a lot. Recently his mom has presented him n points lying on the line OX . Now Petya is wondering in how many ways he can choose three distinct points so that the distance between the two farthest of them doesn't exceed d .

Note that the order of the points inside the group of three chosen points doesn't matter.

Input

The first line contains two integers: n and d ($1 \leq n \leq 10^5$; $1 \leq d \leq 10^9$). The next line contains n integers x_1, x_2, \dots, x_n , their absolute value doesn't exceed 10^9 — the x -coordinates of the points that Petya has got.

It is guaranteed that the coordinates of the points in the input **strictly increase**.

Output

Print a single integer — the number of groups of three points, where the distance between two farthest points doesn't exceed d .

Please do not use the `%lld` specifier to read or write 64-bit integers in C++. It is preferred to use the `cin`, `cout` streams or the `%I64d` specifier.

Examples

input
4 3 1 2 3 4
output
4
input
4 2 -3 -2 -1 0
output
2
input
5 19 1 10 20 30 50
output
1

Note

In the first sample any group of three points meets our conditions.

In the seconds sample only 2 groups of three points meet our conditions: $\{-3, -2, -1\}$ and $\{-2, -1, 0\}$.

In the third sample only one group does: $\{1, 10, 20\}$.