D. Almost Difference

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

Let's denote a function

You are given an array a consisting of n integers. You have to calculate the sum of $d(a_i, a_j)$ over all pairs (i, j) such that $1 \le i \le j \le n$.

Input

The first line contains one integer n $(1 \le n \le 200000)$ — the number of elements in a.

The second line contains n integers $a_1, a_2, ..., a_n$ $(1 \le a_i \le 10^9)$ — elements of the array.

Output

Print one integer — the sum of $d(a_i, a_j)$ over all pairs (i, j) such that $1 \le i \le j \le n$.

Examples

input
5 1 2 3 1 3

output
4

input
4 6 6 5 5

output
0

input
4 6 6 4 4

output
-8

Note

In the first example:

1. $d(a_1, a_2) = 0$;
2. $d(a_1, a_3) = 2$;
3. $d(a_1, a_4) = 0$;
4. $d(a_1, a_5) = 2$;
5. $d(a_2, a_3) = 0$;
6. $d(a_2, a_4) = 0$;
7. $d(a_2, a_5) = 0$;
8. $d(a_3, a_4) = -2$;
9. $d(a_3, a_5) = 0$;
10. $d(a_4, a_5) = 2$.