

## Problem B1

### Sum of Pairs (Easy Version)

Time limit: 1 second

Memory limit: 2048 megabytes

#### Problem Description

Given an array of  $n$  integers  $a_1, a_2, \dots, a_n$ . Find the sum of  $a_j - a_i$  over all integer pairs  $(i, j)$  satisfying  $1 \leq i < j \leq n$  and  $a_i < a_j$ .

In other words, you are required to find the following sum:

$$\sum_{i=1}^{n-1} \sum_{j=i+1}^n \max(0, a_j - a_i)$$

#### Input Format

The first line of the input contains an integer  $n$  denoting the length of the array. The second line of the input contains  $n$  space-separated integers  $a_1, a_2, \dots, a_n$ .

#### Output Format

Output the desired sum in one line.

#### Technical Specification

- $2 \leq n \leq 1000$
- $1 \leq a_i \leq 10^7$  for  $i = 1, 2, \dots, n$

#### Sample Input 1

```
5
4 10 3 8 2
```

#### Sample Output 1

```
15
```

#### Sample Input 2

```
7
82 283 194 30 201 30 217
```

## Sample Output 2

1158
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