Prince Nectarine in Quarantine

Type	Input file	Output file	Time limit	Memory limit
Batch	stdin	stdout	1 second	128 MB

Statement

Day 2 of quarantine. Prince Nectarine, locked up in mansion of Aunty Wowsette, is quickly losing his sanity. Super Maria does not dare leave her house to rescue him, lest she violate the strict social distancing rules mandated by the Fungus Republic. Undergoing unearthly quantities of soul-crushing boredom, Prince Nectarine has resorted to calculating random properties of a list of N numbers, $a_1, a_2 \dots a_N$ he found by interpreting the colours of the tiled swimming pool as base 5.

He would like to know how many triplets (i, j, k) there are such that $1 \leq i < j < k \leq n$ and $a_i < a_j < a_k$ are satisfied.

Input

The first line of input contains a single integer: N. The next N lines contain a single integer each. The i-th of these lines contains the integer a_i.

Output

Output a single integer, the number of triplets (i, j, k) such that $1 \leq i < j < k \leq n$ and $a_i < a_j < a_k$ are satisfied.

Sample Input

```
4
1
3
2
4
```

Sample Output

```
2
```

Explanation

There are precisely 2 triplets that satisfy this condition, $(1, 2, 4)$ and $(1, 3, 4)$.

Constraints

- $3 \leq N \leq 200000$
- $1 \leq a_i \leq 200000$ for all i

Subtasks

Number	Points	Additional Constraints
1	10	$N \leq 200$
2	30	$N \leq 2000$
3	20	$N \leq 200000$ and each a_i for all i is unique
4	40	$N \leq 200000$