

Mirrors

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 1024 megabytes

Given an integer sequence of length n , h_1, h_2, \dots, h_n , find the number of pairs (u, v) that satisfy all of the following conditions:

- $1 \leq u < v \leq n$, and u, v are integers;
- There exists a **positive real number** L and a sequence of length $(v - u + 1)$, r_u, r_{u+1}, \dots, r_v , satisfying all of the following conditions:
 - For all $u \leq i \leq v$, let $h'_i = 2L - h_i$, then $r_i \in \{h_i, h'_i\}$;
 - * Specifically, when $h_i = h'_i$, then $r_i = h_i$;
 - For all $u \leq i < v$, $r_i < r_{i+1}$.

Input

The first line of the input contains a positive integer n ($2 \leq n \leq 5 \times 10^5$), representing the number of pillars.

The second line contains n positive integers h_1, h_2, \dots, h_n ($1 \leq h_i \leq 10^{12}$), representing the heights of the pillars.

Output

Output a single line contains a single integer, representing the number of pairs (u, v) .

Example

standard input	standard output
4 1 3 2 4	6