

Number of triangles

Given an unsorted array of positive integers. Find the number of triangles that can be formed with three different array elements as three sides of triangles. For a triangle to be possible from 3 values, the sum of any two values (or sides) must be greater than the third value (or third side). For example, if the input array is {4, 6, 3, 7}, the output should be 3. There are three triangles possible {3, 4, 6}, {4, 6, 7} and {3, 6, 7}. Note that {3, 4, 7} is not a possible triangle.

Input

The first line is an integer N

The next line contains N integers corresponding to the length of one side of a triangle.

Output

The number of possible triangles

Testcase:

https://drive.google.com/file/d/1ESqzd5Ad7URI_ThfpN3UKMpiCzwN3mEd/view?usp=share_link

Example

Input:

5
1 4 3 6 2

Output:

2