(Adv.) Competitive Programming

Submit until 26.04.2019 13:30, via the judge interface

Problem: triangles (1 second timelimit)

You and your friend play a game: He gives you a list of numbers a_1 to a_n, and you have to pick three numbers a_i, a_j and a_k such that you can build a triangle with those numbers as the lengths of the sides. This gets boring rather quickly, so instead you decide to count the number of such triples. However, you end up with a different number than your friend. It turns out that he considered degenerate triangles (ones where the area is zero) while you did not. To make your counts comparable, you want to count the number of ways you can build a degenerate triangle.

Input The first line contains an integer n ($3 \leq n \leq 5000$). The next line contains n integers a_1 to a_n ($1 \leq a_i \leq 10^9$).

Output Print a line containing the number of triples a_i, a_j, a_k which form a degenerate triangle. The indices in each triple have to be pairwise disjoint. Note that the number of triples may exceed 2^{32}.

Sample input	Sample output
3 1 2 3	1
3 1 2 4	0
6 1 1 2 3 4 5	8