PROBLEM L. COUNTING TRIANGLE

Time limit: 1 second

There are n wooden sticks, the i-th stick is d_i cm long. With 3 sticks, we may form a triangle. You task is to count the number of ways to form isosceles triangles (all angles less than 90 degrees), right triangles (one square angle) and scalene triangles (one angle wider than 90 degrees).

Input

The first input line contains positive integer n ($n \leq 2500$).
The second line contains n positive integer $d_1, d_2, \ldots, d_n$ ($d_i \leq 10^9$).

Output

Output 3 numbers: the number of isosceles triangles, the number of right triangles and the number of scalene triangles.

Sample

INPUT	OUTPUT
3 1 2 3	0 0 0
4 1 1 1 1	4 0 0
3 3 4 5	0 1 0