1307 – Counting Triangles

You are given **N** sticks having distinct lengths; you have to form some triangles using the sticks. A triangle is valid if its area is positive. Your task is to find the number of ways you can form a valid triangle using the sticks.

Input

Input starts with an integer **T (≤ 10)**, denoting the number of test cases.

Each case starts with a line containing an integer **N (3 ≤ N ≤ 2000)**. The next line contains **N** integers denoting the lengths of the sticks. You can assume that the lengths are distinct and each length lies in the range **[1, 10^9]**.

Output

For each case, print the case number and the total number of ways a valid triangle can be formed.

Sample Input	Output for Sample Input
3 5 3 12 5 4 9 6 1 2 3 4 5 6 4 100 211 212 121	Case 1: 3 Case 2: 7 Case 3: 4