

Problem F Triangles

File: triangulos.[c|cpp|java]

You will be given N points on a circle. You must write a program to determine how many distinct equilateral triangles can be constructed using the given points as vertices.

The figure below illustrates an example: (a) shows a set of points, determined by the lengths of the circular arcs that have adjacent points as extremes; and (b) shows the two triangles which can be built with these points.



Input

The input contains several test cases. The first line of a test case contains an integer N , the number of points given. The second line contains N integers X_i , representing the lengths of the circular arcs between two consecutive points in the circle: for $1 \leq i \leq (N - 1)$, X_i represents the length of the arc between points i and $i + 1$; X_N represents the length of the arc between points N and 1.

Output

For each test case your program must output a single line, containing a single integer, the number of distinct equilateral triangles that can be constructed using the given points as vertices.

Restrictions

- $3 \leq N \leq 10^5$
- $1 \leq X_i \leq 10^3$, for $1 \leq i \leq N$

Examples

Input	Output
8	2
4 2 4 2 2 6 2 2	1
6	
3 4 2 1 5 3	