

Problem G. Generate The Triangles

Input file: *standard input*
Output file: *standard output*
Time limit: 1 second
Memory limit: 1024 mebibytes

You have a_1 sticks of length 1, a_2 sticks of length 2, and a_3 sticks of length 3. You can perform the following operation any number of times: choose 3 sticks such that they can form a triangle with nonzero area, and use these 3 sticks to make a triangle. Once used, the sticks cannot be used to form other triangles.

Determine the maximum number of triangles that can be made. Given t test cases, compute the answer for each.

Input

The first line of the input contains one integer t , the number of test cases ($1 \leq t \leq 10^4$).

Each of the following t lines denotes one test case and contains three integers: a_1 , a_2 , and a_3 ($0 \leq a_i \leq 10^8$).

Output

For each test case, print a single integer: the maximum number of triangles that can be made.

Example

<i>standard input</i>	<i>standard output</i>
4	2
3 1 2	1
4 1 1	0
0 0 0	41730095
31415926 535897 93238462	