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PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

C. Triangle Pendant

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input output: standard output



Given a point D at height zero and a triangle $\triangle ABC$ with uniform mass, we use three ropes with length x,y, and z to connect AD,BD, and CD respectively. The mass of the ropes can be ignored. Let the triangle fall naturally and stabilize at the lowest position of the center of gravity. Find the final heights of points A,B, and C.

Input

There are multiple test cases. The first line of the input contains an integer T (about 10^4) indicating the number of test cases. For each test case:

The first and only line contains six integers x,y,z,a,b and c $(1 \le x,y,z,a,b,c \le 1000, a+b>c, a+c>b, b+c>a)$ indicating the length of three ropes and the length of BC, AC and AB.

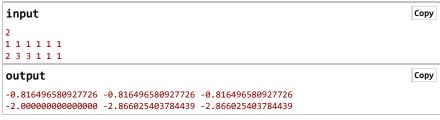
You can assume that the solution always exists.

Output

For each test case output one line containing threes real numbers indicating the height of points $A,\,B$ and C.

Your answer will be considered correct if and only if the absolute or relative error does not exceed 10^{-4} .

Example



The 2021 Sichuan Provincial Collegiate Programming Contest

Finished

Practice



→ About Contest

This contest is prepared by SUA Problem Setter Team (https://sua.ac/). The competition is hosted and authorized by Southwest Minzu University.

→ Virtual participation

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Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++11 5.1.0 V Choose file: 浏览... 未选择文件。

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