

Problem 8: Simple Equations

(Medium)

(Adapted from UVa 11565)

Let us look at a boring mathematics problem. :-)

We have three different integers, x , y and z , which satisfy the following three equations:

- $x + y + z = A$
- $xyz = B$
- $x^2 + y^2 + z^2 = C$

You are asked to **write a program** that solves for x , y and z for given values of A , B and C .

Input Format

The first line of the input file gives the number of test cases N .

Each of the following N lines gives the values of A , B and C , separated by spaces.

Constraints

- $1 \leq N \leq 20$
- $1 \leq A, B, C \leq 10^3$

The time limit for this problem is 2 seconds.

Output Format

For each test case, output the corresponding values of x , y and z , separated by spaces. If there are many possible answers, choose the one with the **least value of x** . If there is a **tie**, output the one with the **least value of y** .

If there is no solution, output the line **No solution.** instead.

Sample Input

```
2
1 2 3
6 6 14
```

Sample Output

No solution.
1 2 3