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

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

- $\bullet \ x + y + z = A$
- 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

The first line of the input file gives the number of test cases N (N < 20). Each of the following N lines gives the values of A, B and C ($1 \le A, B, C \le 10000$).

Output

For each test case, output the corresponding values of x, y and z. 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