This is an extreme version of a boring mathematics problem.

Let us recall the scenario: we have three different integers, x, y and z, which satisfy the following three relations:

- $x + y + z = A$

- $xyz = B$

- $x^2 + y^2 + z^2 = C$

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 ($N < 250$) lines gives the values of A, B and C ($1 \le A, B, C \le 6 \times 10^{18} = 6000000000000000000$).

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
```