Solve Equations

You are given a straight line, $a \cdot x + b \cdot y = c$. Find the point closest to the origin that also satisfies the following properties:

1. x and y are *integers*.

2. x is *greater than* zero.

If more than one solution exists satisfying 1 and 2, then choose the point in which x is minimal.

Given q queries consisting of a_i, b_i, and c_i, find and print the point satisfying the above conditions for each respective query. Each point must be printed on a new line as two space-separated integers denoting the point's respective x_i and y_i values.

Note: It is guaranteed that there will always be integral points on the line.

Input Format

The first line contains an integer, q, denoting the number of queries.
Each line i of the q subsequent lines contains three space-separated integers describing the respective values of a_i, b_i, and c_i for the query.

Constraints

- $1 \le q \le 10^5$

- $1 \le a \le 10^8$

- $1 \le b \le 10^8$

- $1 \le c \le 10^8$

Output Format

For each query, print 2 space-separated integers on a new line denoting the respective values of x_i and y_i for the point satisfying the ith query.

Sample Input

```
1
2 3 1
```

Sample Output

```
2 -1
```

Explanation

Given the line $2 \cdot x + 3 \cdot y = 1$, the point $(2, -1)$ is on the line and satisfies the conditions specified above. Thus, we print the coordinate as two space-separated integers on a new line.