Baby Step, Giant Step

You are standing at point $(0, 0)$ on an infinite plane. In one step, you can move from some point (x_f, y_f) to any point (x_t, y_t) *as long as* the Euclidean distance, $\sqrt{(x_f - x_t)^2 + (y_f - y_t)^2}$, between the two points is either a or b. In other words, each step you take must be exactly a or b in length.

You are given q queries in the form of a, b, and d. For each query, print the minimum number of steps it takes to get from point $(0, 0)$ to point $(d, 0)$ on a new line.

Input Format

The first line contains an integer, q, denoting the number of queries you must process.
Each of the q subsequent lines contains three space-separated integers describing the respective values of a, b, and d for a query.

Constraints

- $1 \leq q \leq 10^5$
- $1 \leq a < b \leq 10^9$
- $0 \leq d \leq 10^9$

Output Format

For each query, print the minimum number of steps necessary to get to point $(d, 0)$ on a new line.

Sample Input

```
3
2 3 1
1 2 0
3 4 11
```

Sample Output

```
2
0
3
```

Explanation

We perform the following $q = 3$ queries:

1. One optimal possible path requires two steps of length $a = 2$: $(0,0)\underset{2}{\rightarrow}(\frac{1}{2}, \frac{\sqrt{15}}{2})\underset{2}{\rightarrow}(1,0)$. Thus, we print the number of steps, 2, on a new line.
2. The starting and destination points are both $(0, 0)$, so we needn't take any steps. Thus, we print 0 on a new line.
3. One optimal possible path requires two steps of length $b = 4$ and one step of length $a = 3$: $(0,0)\underset{4}{\rightarrow}(4,0)\underset{4}{\rightarrow}(8,0)\underset{3}{\rightarrow}(11,0)$. Thus, we print 3 on a new line.