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.

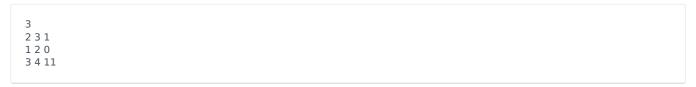
Constraints

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

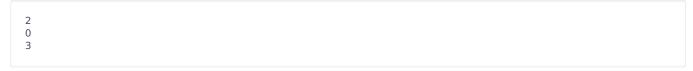
Output Format

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

Sample Input 0



Sample Output 0



Explanation 0

We perform the following q = 3 queries:

- 1. One optimal possible path requires two steps of length a=2: $(0,0)^{\rightarrow}_2(\frac{1}{2},\frac{\sqrt{15}}{2})^{\rightarrow}_2(1,0)$. 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: $(0,0) \xrightarrow{4} (4,0) \xrightarrow{4} (8,0) \xrightarrow{3} (11,0)$. Thus, we print 3 on a new line.