PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

A. C+=

time limit per test: 2 seconds
memory limit per test: 512 megabytes
input: standard input
output: standard output

Leo has developed a new programming language C+=. In C+=, integer variables can only be changed with a "+=" operation that adds the right-hand side value to the left-hand side variable. For example, performing "a += b" when $a = 2$, $b = 3$ changes the value of a to 5 (the value of b does not change).

In a prototype program Leo has two integer variables a and b, initialized with some positive values. He can perform any number of operations "a += b" or "b += a". Leo wants to test handling large integers, so he wants to make the value of either a or b **strictly greater** than a given value n. What is the smallest number of operations he has to perform?

Input
The first line contains a single integer T $(1 \le T \le 100)$ — the number of test cases.

Each of the following T lines describes a single test case, and contains three integers a, b, n $(1 \le a, b \le n \le 10^9)$ — initial values of a and b, and the value one of the variables has to exceed, respectively.

Output
For each test case print a single integer — the smallest number of operations needed. Separate answers with line breaks.

Example

input	Copy

```
2
1 2 3
5 4 100
```

output	Copy

```
2
7
```

Note
In the first case we cannot make a variable exceed 3 in one operation. One way of achieving this in two operations is to perform "b += a" twice.

Codeforces (c) Copyright 2010-2021 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: May/10/2021 18:15:12 UTC-5 (j1).
Desktop version, switch to mobile version.
Privacy Policy

Supported by

ITMO UNIVERSITY