D. Miss Khaduj & Gauss

time limit: 2sec

Gauss is a very rowdy kid, lets no one concentrate in the classroom. This time, his teacher Miss khaduj decided to change her approach with him. Instead of beating him, she gave him a problem to keep him busy. The problem is :

Given an integer value x and a sequence of integers $(U_n)_{1\leq n}$ such that $U_n = a$ if n is not divisible by 2, and $U_n = b$ otherwise $(1 \leq b < a)$. The task is to find the least integer m such that the average value of $(U_n)_{1\leq n\leq m}$ is as close as possible to x. In other words find the least integer m such that the value $\left|\frac{U_1+U_2+\ldots+U_m}{m} - x\right|$ is minimal.

It didn't take long for Gauss to find the answer and start annoying his comrades again. At first, Miss Khaduj was very angry, but she's a good person, so she decided to check his answer before taking any action. The problem is that Miss Khadouj does not know the correct answer for the task. Help Miss Khadouj!

Input

The first line of the input contains one integer t, $1 \leq t \leq 3.10^4$ the number of test cases. Then t test cases follow.
The only line in each test case consists of three positive integers a, b and x $(1 \leq b < a \leq 10^6,\ b \leq x \leq a)$

Output

For each test case print a single positive integer m, the right answer.

Sample cases

3 30 10 20 41 15 30 18 13 18	2 7 1
