



ASTUCompetitive Programming Contest 2011 E.C.

Problem E. Diophantine Equation

Time Limit 1 second

Problem

A Linear Diophantine Equation (in two variables) is an equation of the general form:

$$ax+by=c$$
 Equation (1)

To find one solution of the Diophantine equation with 2 unknown variables, you can use the extended Euclidean algorithm. 1^{st} , assume that a and b are non-negative. When we apply extended Euclidean algorithm for a and b, we can find their greatest common divisor g and g and g and g such that:

$$ax_g+by_g=g$$
 Equation (2)

If c is divisible by $g=\gcd(a,b)$, then the given Diophantine equation has a solution, otherwise it does not have any solution.

Let us see equation (1),

Given three positive integers a, b and c. You have to determine whether there exists at least one solution for some integers value of x and y where x, y may be negative or non-negative integers.

For example if a=2, b=4 and c=8 then the equation will be 2x+4y=8, and hence, for x=2 and y=1, there exists a solution.

Let us see another example for a=3, b=6 and c=7, so the equation will become 3x+6y=7 and there exists no solution satisfying this equation.

Input

Input starts with an integer T ($1 \le T \le 10^5$) denoting the number of test cases. Each test case contains three integers a, b, and c. ($1 \le a$, b, c $\le 10^6$).

Output

For each test case of input print the case number and "Yes" if there exists at least one solution, print "No" otherwise.

Sample Input 1	Sample Output 1
2	Case 1: Yes
2 4 8	Case 2: No
367	