

Southeastern European Regional Programming Contest Bucharest, Romania October 12, 2013

Problem E A+B

Input File: E.IN

Output File: standard output

Program Source File: E.C, E.CPP, E.JAVA

There is a computer, which has two memory cells (let us denote these cells by the letters a and b). Each cell (variable) stores some integer at any time. The computer can execute only two instructions a+=b and b+=a. The first instruction increases the value of the variable a by the value stored in the variable b. The second one, respectively, increases the value of b by the value a. A program for this computer consists of a sequence (possible empty) of such instructions. The instructions are executed in the appropriate order. Your task is to determine whether the given value b can be obtained in some cell after executing some program.

Input

The input file contains three integers: the initial value of the variable a, the initial value of the variable b and the required value S (0 \leq a, b, S \leq 10¹⁸).

Output

Output YES if the required value can be obtained as a result of some program execution, or NO otherwise.

Sample input	Sample output
1 2 3	YES
3 4 5	NO
3 4 17	YES