1. Number Problem

You are given two integers ***a*** and ***b***.

In one move, you can choose some integer k from 1 to 10 and add it to a or subtract it from a. In other words, you choose an integer k∈[1;10] and perform ***a=a+k*** or ***a=a−k***. You may use different values of k in different moves.

Your task is to **find the minimum number of moves required to obtain b from a**.

Note: Check out the Sample I/O for more clarity.

Input Format:
The only line of input contains two integers ***a*** and ***b***.

Output Format:
Print the answer: the minimum number of moves required to obtain b from a.

Constraints:
1 ≤ a, b ≤ 1000000000

Sample I/O:

Input 1:
5 5
Output 1:
0

Input 2:
13 42
Output 2:
3

Input 3:
18 4
Output 3:
2

Input 4:
1337 420
Output 4:
92

Input 5:
123456789 1000000000
Output 5:
87654322

Explanation:
For Input 2,
Step1: Pick 9 as k value and add it to a, thus by making it 13 + 9 = 22.
Step2: Pick 10 as k value and add it to a, thus by making it 22 + 10 = 32.
Step3: Pick 10 as k value and add it to a, thus by making it 32 + 10 = 42.
So we successfully obtained ***b (42)*** from ***a (13)*** in 3 steps Notice that the order of picking k value doesn't matter, it can be shown that it's **not possible to obtain 42 from 13 in the above process in less than 3 steps**.

For Input 3,
We can obtain ***b (4)*** from ***a (18)*** either by subtracting 10 and 4 or by subtracting 9 and 5 or by subtracting 8 and 6 or by subtracting 7 and 7. But all of these operations require at least of 2 steps. So the answer is 2. Also notice that we can get ***b (4)*** from ***a (18)*** by picking k value as 1 and subtracting it 13 times. But it takes 13 steps to get to 4, we have to print the **minimum number of moves required**.

2. Sharing is Caring

Master Shifu has ***N*** cookies with him and he wants to distribute them to his ***X*** students in a way such that:

1. Each student gets at least one cookie
2. No two students get the same number of cookies
3. No cookies are left over

Find out if it is possible for Master Shifu to do so.

Note: It's not possible to break the cookies into parts.

Input Format:
Only line of input contains two integers ***N*** and ***X***.

Output Format:
Print **YES**, if Master Shifu can distribute else print **NO**.

Constraints:
$1 \leq X \leq N \leq 10000$

Sample I/O:

Input 1:
10 2
Output 1:
YES

Input 2:
8 4
Output 2:
NO

Input 3:
110 14
Output 3:
YES

Explanation:
Input 1:
One way Master Shifu can distribute **10** cookies to his **2** students obeying the conditions is, **6** cookies for student 1 and **4** cookies for student 2. Note that distributing them as **5** and **5** is not possible because of the 2nd condition.

Input 2:
There is no way for Master Shifu to distribute **8** cookies to his **4** students by obeying the conditions. Because if he distributes
1 cookie to student 1,
2 cookies to student 2 and

3 cookies to student 3,
he will be left with **2** more cookies and he can't give those to the 4th student as it will break the condition 2.

3. Elections at Hogwarts

There are 101 students at **Hogwarts**. It is election time and 3 parties, **Gryffindor, Slytherin** and **Hufflepuff** are contesting the elections. Party **Gryffindor** receives ***X*** votes, party **Slytherin** receives ***Y*** votes and party **Hufflepuff** receives ***Z*** votes.

The constitution of **Hogwarts** requires a particular party to receive a clear majority to form the government. A party is said to have a clear marjority if it receives **strictly** greater than 50 votes.

If any party has clear majority print the winning party (**Gryffindor, Slytherin or Hufflepuff**). Othewise print **NOTA**.

Input Format:
Only line of input contains three integers ***X***, ***Y*** and ***Z***.

Output Format:
Print output according to the description.

Constraints:
$0 \leq X, Y, Z \leq 101$
$X + Y + Z = 101$

Sample I/O:

Input 1:
80 19 2
Output 1:
Gryffindor

Input 2:
20 55 26
Output 2:
Slytherin

Input 3:
50 1 50
Output 3:
NOTA

Input 4:
0 0 101
Output 4:
Hufflepuff