

1. Climbing Down

Two friends Walter and Jesse are currently on floors **A** and **B** respectively. They hear an announcement that prizes are being distributed on the ground floor and so decide to reach the ground floor as soon as possible.

Walter can climb down **X** floors per minute while Jesse can climb down **Y** floors per minute. Determine who will reach the ground floor first. In case both reach the ground floor together, print Both.

Input Format:

The only line of input contains four space-separated integers **A**, **B**, **X**, and **Y** - the current floor of Walter, the current floor of Jesse, speed of Walter and speed of Jesse in floors per minute respectively.

Output Format:

Print **Walter** if Walter reaches the ground floor first. **Jesse** if he reaches the ground floor first. **Both** if both reach the ground floor at the same time.

Sample I/O:

Input 1:

2 2 2 2

Output 1:

Both

Input 2:

4 2 1 5

Output 2:

Jesse

Input 3:

3 2 4 1

Output 3:

Walter

Input 4:

10 6 6 4

Output 4:

Jesse

2. Can be a factor?

Madmax has two integers A and B ($A \leq B$).

He can choose any **non-negative** integer X and add it to both A and B. Find whether it is possible to make **A a divisor of B**.

See the Sample I/O and Explanation for more clarity.

Input Format:

- The first line of input will contain a single integer T, denoting the number of test cases.
- Each test case consists of two integers A and B.

Output Format:

For each test case, output **YES** if it is possible to make A a factor of B, **NO** otherwise.

Constraints:

- $1 \leq T \leq 105$
- $1 \leq A \leq B \leq 109$

Sample I/O:

Input 1:

3

3 6

4 14

9 11

Output 1:

YES

YES

NO

Input 2:

5

7 16

21 27

16 33

10 10

130 259

Output 2:

YES

NO

YES

YES

NO

Explanation:

In Input 1,

for Testcase 1, we can choose $X = 0$ and can add it to both 3 and 6. Now 3 is a factor of 6.

for Testcase 2, we can choose $X = 1$ and can add it to both 4 and 14 making them 5 and 15. 5 is a factor 15.

for Testcase 3, there not possible value of X to add such that A becomes a factor of B.

3. Divisibility Problem

You are given two positive integers **a** and **b**. In one move you can increase **a** by 1 (replace **a** with **a+1**).

Your task is to **find the minimum number of moves you need to do in order to make a divisible by b**. It is possible, that you have to make 0 moves, as **a** is already divisible by **b**.

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 you need to do in order to make **a** divisible by **b**.

Constraints:

$1 \leq a, b \leq 1000000000$

Sample I/O:

Input 1:

10 4

Output 1:

2

Input 2:

13 9

Output 2:

5

Input 3:

100 13

Output 3:

4

Input 4:

123 456

Output 4:

333

Input 5:

92 46

Output 5:

0

Explanation:

For Input 1,

Move1: You can add 1 to **a (10)** to make it 11.

Move2: As 11 is not divisible by **b (4)**, we will add 1 more to **a**, thus it becomes 12.

As 12 is divisible by **b (4)**, we can stop at this point. We can say that minimum number of moves we have to make for this input is 2.

For Input 3,

We have to add 1 to **a (100)** for 4 times to get to 104, which is divisible by **b (13)**.