

## Problem 2. Game

This school year Ivancho has a new classmate – Sashka. Only two months passed but Sashka managed to annoy Ivancho beating him on every game they have played. Now they play a new game and Ivancho wants to win really bad.

Here is the game. Sashka says two numbers A and B to Ivancho, followed by K intervals. For each interval Ivancho must answer the question how many common divisors belong to the interval.

You may already know that Ivancho can't solve this problem without your help.

**Input:** The first line of the input file **game.in** contains two numbers – A and B. The second line contains a single number K. On the following K lines are described the intervals by their borders [ L ; R ].

**Output:** The output file **game.out** must contain K numbers – the answers for each interval.

**Constrains:**

$$1 \leq A, B, L, R \leq 10^{12}, L \leq R$$

$$1 \leq K \leq 1000000$$

**TIME LIMIT – 2 sec**

**Note:** When printing/scanning long integers use "%l64d" with printf/scanf or cin/cout.

**Example:**

| <b>game.in</b> | <b>game.out</b> |
|----------------|-----------------|
| 48 72          | 6               |
| 3              | 3               |
| 1 9            | 5               |
| 5 14           |                 |
| 3 20           |                 |

