**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 $ **А, B, L , R** $\leq $ $10^{12}$ **, L<=R**

**1** $\leq $ **K** $\leq $ 1000000

TIME LIMIT – 2 sec

**Note:** When printing/scanning long integers use ”%I64d” with printf/scanf or cin/cout.

**Example:**

|  |  |
| --- | --- |
| **game.in** | **game.out** |
| 48 7231 95 143 20 | 635 |