

## A. The Wall

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

lahub and his friend Floyd have started painting a wall. lahub is painting the wall red and Floyd is painting it pink. You can consider the wall being made of a very large number of bricks, numbered 1, 2, 3 and so on.

lahub has the following scheme of painting: he skips  $X - 1$  consecutive bricks, then he paints the  $X$ -th one. That is, he'll paint bricks  $X, 2 \cdot X, 3 \cdot X$  and so on red. Similarly, Floyd skips  $Y - 1$  consecutive bricks, then he paints the  $Y$ -th one. Hence he'll paint bricks  $Y, 2 \cdot Y, 3 \cdot Y$  and so on pink.

After painting the wall all day, the boys observed that some bricks are painted both red and pink. lahub has a lucky number  $a$  and Floyd has a lucky number  $b$ . Boys wonder how many bricks numbered no less than  $a$  and no greater than  $b$  are painted both red and pink. This is exactly your task: compute and print the answer to the question.

### Input

The input will have a single line containing four integers in this order:  $x, y, a, b$ .  
 $(1 \leq x, y \leq 1000, 1 \leq a, b \leq 2 \cdot 10^9, a \leq b)$ .

### Output

Output a single integer — the number of bricks numbered no less than  $a$  and no greater than  $b$  that are painted both red and pink.

### Examples

input
2 3 6 18
output
3

### Note

Let's look at the bricks from  $a$  to  $b$  ( $a = 6, b = 18$ ). The bricks colored in red are numbered 6, 8, 10, 12, 14, 16, 18. The bricks colored in pink are numbered 6, 9, 12, 15, 18. The bricks colored in both red and pink are numbered with 6, 12 and 18.

### → Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

### Codeforces Round #198 (Div. 2)

Finished

### → Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.


Start virtual contest

### → Problem tags

math

No tag edit access

### → Contest materials

- Announcement 
- Tutorial 