B. Nastya Studies Informatics

Today on Informatics class Nastya learned about GCD and LCM (see links below). Nastya is very intelligent, so she solved all the tasks momentarily and now suggests you to solve one of them as well.

We define a pair of integers (a, b) *good*, if $GCD(a, b) = x$ and $LCM(a, b) = y$, where $GCD(a, b)$ denotes the greatest common divisor of a and b, and $LCM(a, b)$ denotes the least common multiple of a and b.

You are given two integers x and y. You are to find the number of *good* pairs of integers (a, b) such that $l \le a, b \le r$. Note that pairs (a, b) and (b, a) are considered different if $a \ne b$.

Input

The only line contains four integers l, r, x, y ($1 \le l \le r \le 10^9$, $1 \le x \le y \le 10^9$).

Output

In the only line print the only integer — the answer for the problem.

Examples

input
```
1 2 1 2
```
output
```
2
```

input
```
1 12 1 12
```
output
```
4
```

input
```
50 100 3 30
```
output
```
0
```

Note

In the first example there are two suitable *good* pairs of integers (a, b): $(1, 2)$ and $(2, 1)$.

In the second example there are four suitable *good* pairs of integers (a, b): $(1, 12)$, $(12, 1)$, $(3, 4)$ and $(4, 3)$.

In the third example there are *good* pairs of integers, for example, $(3, 30)$, but none of them fits the condition $l \le a, b \le r$.