# Cheerio Contest 2 P4 - Modulus Finding

**Time limit:** 1.0s **Memory limit:** 512M

You are given four integers $A$, $B$, $C$, $D$ that satisfy the equations $A \bmod X = B$ and $C \bmod X = D$, where $X$ is a **positive** integer. Output all possible values of $X$. It is possible that there are none — in which case you do not need to output anything.

## Constraints

For all subtasks:

- $1 \leq A, B, C, D \leq 10^{12}$
- $B < A$ and $D < C$

| Points Awarded | Additional Constraints |
|---|---|
| 3 points | $A = C$ and $B = D$ |
| 5 points | $1 \leq A, B, C, D \leq 10^6$ |
| 7 points | No further constraints |

## Input Specification

The only line of input contains four integers $A$, $B$, $C$ and $D$.

## Output Specification

Output all possible values of $X$, each on their own line and in ascending order.

## Sample Input

```
13 1 10 2
```

## Sample Output

```
4
```

## Explanation for Sample

$13 \equiv 1 \pmod 4$ and $10 \equiv 2 \pmod 4$. It can be shown that this is the only possible value of $X$.