D. Two Arithmetic Progressions

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given two arithmetic progressions: $a_1k + b_1$ and $a_2l + b_2$. Find the number of integers x such that $L \le x \le R$ and $x = a_1k' + b_1 = a_2l' + b_2$, for some integers $k', l' \ge 0$.

Input

The only line contains six integers a_1, b_1, a_2, b_2, L, R ($0 < a_1, a_2 \le 2 \cdot 10^9$, $-2 \cdot 10^9 \le b_1, b_2, L, R \le 2 \cdot 10^9$, $L \le R$).

Output

Print the desired number of integers x.

Examples

input
2 0 3 3 5 21
output
3

input
2 4 3 0 6 17
output
2