

# Between Two Sets



You will be given two arrays of integers and asked to determine all integers that satisfy the following two conditions:

1. The elements of the first array are all factors of the integer being considered
2. The integer being considered is a factor of all elements of the second array

These numbers are referred to as being *between* the two arrays. You must determine how many such numbers exist.

For example, given the arrays  $a = [2, 6]$  and  $b = [24, 36]$ , there are two numbers between them: **6** and **12**.  $6\%2 = 0$ ,  $6\%6 = 0$ ,  $24\%6 = 0$  and  $36\%6 = 0$  for the first value. Similarly,  $12\%2 = 0$ ,  $12\%6 = 0$  and  $24\%12 = 0$ ,  $36\%12 = 0$ .

## Function Description

Complete the `getTotalX` function in the editor below. It should return the number of integers that are between the sets.

`getTotalX` has the following parameter(s):

- $a$ : an array of integers
- $b$ : an array of integers

## Input Format

The first line contains two space-separated integers,  $n$  and  $m$ , the number of elements in array  $a$  and the number of elements in array  $b$ .

The second line contains  $n$  distinct space-separated integers describing  $a[i]$  where  $0 \leq i < n$ .

The third line contains  $m$  distinct space-separated integers describing  $b[j]$  where  $0 \leq j < m$ .

## Constraints

- $1 \leq n, m \leq 10$
- $1 \leq a[i] \leq 100$
- $1 \leq b[j] \leq 100$

## Output Format

Print the number of integers that are considered to be *between*  $a$  and  $b$ .

## Sample Input

```
2 3
2 4
16 32 96
```

## Sample Output

```
3
```

## Explanation

2 and 4 divide evenly into 4, 8, 12 and 16.

4, 8 and 16 divide evenly into 16, 32, 96.

4, 8 and 16 are the only three numbers for which each element of  $a$  is a factor and each is a factor of all elements of  $b$ .