

Problem M. Between Two Sets

OS Linux

There will be two arrays of integers. 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. Determine how many such numbers exist.

Example

$a = [2, 6]$

$b = [24, 36]$

There are two numbers between the arrays: **6** and **12**.

$6\%2 = 0$, $6\%6 = 0$, $24\%6 = 0$ and $36\%6 = 0$ for the first value.

$12\%2 = 0$, $12\%6 = 0$ and $24\%12 = 0$, $36\%12 = 0$ for the second value. Return **2**.

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):

- `int a[n]`: an array of integers
- `int b[m]`: an array of integers

Returns

- `int`: the number of integers that are between the sets

Input Format

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

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

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

Constraints

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

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.