All Contests > B22-csec > Between Two Sets

Between Two Sets



Problem

Submissions

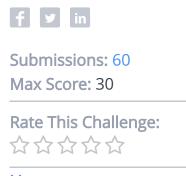
Leaderboard

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.



More

We use cookies to ensure you have the best browsing experience on our website. Please read our cookie policy for more information about how we use cookies.

OK

Complete the *getTotalX* function in the editor below. It should return the number of integers that are betwen 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

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

Output Format

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

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.

Contest Calendar | Interview Prep | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature