

Recruiter/Team Comments:

No Comments.



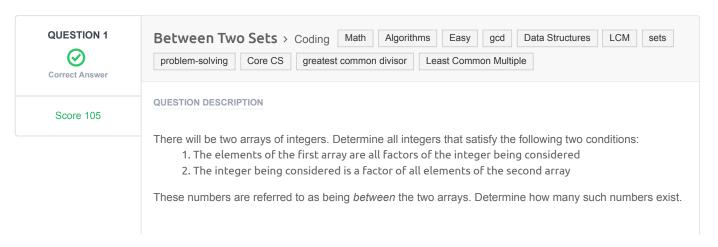
105/105

105/105

greatest common divisor

problem-solving

sets 105/105



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 betwen 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 $0 \le i < n$.

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

Constraints

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

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.

CANDIDATE ANSWER

Language used: Python 3

```
1 #
2 # Complete the 'getTotalX' function below.
3 #
4 # The function is expected to return an INTEGER.
5 # The function accepts following parameters:
6 # 1. INTEGER_ARRAY a
7 # 2. INTEGER_ARRAY b
8 #
9
10 def getTotalX(a, b):
```

```
nums = []
        for i in range(a[-1], b[0] + 1):
             if all(i % x == 0 for x in a) and all(x % i == 0 for x in b):
14
                  nums.append(i)
        return len(nums)
   TESTCASE
                DIFFICULTY
                                              STATUS
                                                          SCORE
                                                                                  MEMORY USED
                                 TYPE
                                                                   TIME TAKEN
  Testcase 1
                                            Success
                                                            0
                                                                    0.0544 sec
                                                                                      9.25 KB
                   Easy
                              Sample case
                                            Success
                                                                    0.0957 sec
                                                                                      9.3 KB
  Testcase 2
                   Easy
                              Hidden case
                                                            15
  Testcase 3
                                                                    0.0966 sec
                                                                                      9.37 KB
                   Easy
                              Hidden case
                                            Success
                                                            15
  Testcase 4
                   Easy
                              Hidden case
                                            Success
                                                            15
                                                                    0.0545 sec
                                                                                      9.16 KB
  Testcase 5
                   Easy
                              Hidden case
                                            Success
                                                            15
                                                                    0.0553 sec
                                                                                      9.31 KB
  Testcase 6
                   Easy
                              Hidden case
                                            Success
                                                            15
                                                                    0.1388 sec
                                                                                      9.26 KB
  Testcase 7
                   Easy
                              Hidden case

    Success

                                                            15
                                                                    0.0879 \, \text{sec}
                                                                                      9.37 KB
  Testcase 8
                   Easy
                              Hidden case

    Success

                                                            15
                                                                    0.0387 \, \text{sec}
                                                                                      9.17 KB
  Testcase 9
                   Easy
                              Sample case

    Success

                                                            0
                                                                    0.0916 sec
                                                                                      9.33 KB
No Comments
```

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