Programming Practice Challenge

01 : 16 : 59
HRS MIN SEC

Finish Test

Programming Practice Challenge

LIVE

Sep 21, 2016, 03:10 PM IST

INSTRUCTIONS **PROBLEMS** **SUBMISSIONS** **LEADERBOARD** **ANALYTICS** **JUDGE**

← Problems / Little Shino and Common factors

Little Shino and Common factors

Max. Marks: 100

Little Shino loves maths. Today her teacher gave her two integers. Shino is now wondering how many integers can divide both the numbers. She is busy with her assignments. Help her to solve the problem.

Input:
First line of the input file contains two integers, a and b.

Output:
Print the **number of common factors** of a and b.

Constraints:
$1 \le a, b \le 10^{12}$

SAMPLE INPUT	
10 15	

SAMPLE OUTPUT	
2	

Explanation

The common factors of 10 and 15 are 1 and 5.

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded if any testcase passes.
Allowed Languages:	C, C++, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino),

JavaScript(Node.js), Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python,

Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file.   Save   Python (python 2.7.6)

```python
1   # A function that returns gcd of a & b
2   def gcd(x, y):
3       """
4           This function implements the Euclidian algorithm
5           to find G.C.D. of two numbers
6       """
7       while(y):
8           x, y = y, x%y
9
10      return x
11
12  # Starting point
13  a, b = (int(num) for num in raw_input().split())
14  common_factors = 1   # 1 is divisor of all numbers
15  gcd_number = gcd(a, b)
16
17  if gcd_number != 1:
18      common_factors += 1
19
20  i = 2
21  while i < gcd_number:
22      if (a % i) == 0 and (b % i == 0):
23          common_factors += 1
24      i += 1
25
26  print common_factors
27
```
                                                                        12:17

🔽 Provide custom input   💡 Press Ctrl-space for autocomplete suggestions.

COMPILE & TEST   SUBMIT

Log ID: 29921967 / 06:54:01 7 Aug., 2017

RESULT: Sample Test Cases Passed ❓

Time (sec)	Memory (KiB)	Language
0.112932	64	Python

Input

```
10  15
```

Your Code's Output

2

Expected Correct Output

2

Compilation Log

Compiled successfully.

✏️ **Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

✉️ **Support:** For any queries or issues, write to "Lavish Aggarwal"<lavish@hackerearth.com>.

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Chinnapureddy Mullangi 4 months ago
It will be good if we can check failed testcases input and output. This will help in correction
▲ 16 votes ● Reply ● Message ● Permalink

Abhishek Kumar 📝 Edited 8 months ago
all the other online and offline compiler gave correct result on sample input
but here it says wrong answer
put light on my issue https://www.hackerearth.com/users/lavish205/" target="_blank">@Lavish Aggarwal
▲ 5 votes ● Reply ● Message ● Permalink

> **Shubham Gupta** ⚡ Admin 8 months ago
> Sample input is for understanding the problem. Your code is run against hidden test cases. So, if you are getting wrong answer that means your code is failing the hidden test cases.
> ▲ 0 votes ● Reply ● Permalink

>> **Abhishek Kumar** 8 months ago
>> it is giving wrong for sample test only
>> ▲ 1 vote ● Reply ● Message ● Permalink

>>> **Abhishek Kumar** 8 months ago
>>> i think there is something wrong with this compiler or else its not good with c language
>>> ▲ 1 vote ● Reply ● Message ● Permalink

>>>> **Shubham Gupta** ⚡ Admin 8 months ago
>>>> The compiler is working fine. Your code is giving correct output for the sample.