Problem 2427: Number of Common Factors

Problem Information

Difficulty: Easy
Acceptance Rate: 79.81%
Paid Only: No
Tags: Math, Enumeration, Number Theory

Problem Description

Given two positive integers `a` and `b`, return _the number of**common** factors of _`a` _and_`b`.

An integer `x` is a **common factor** of `a` and `b` if `x` divides both `a` and `b`.

Example 1:

Input: a = 12, b = 6 **Output:** 4 **Explanation:** The common factors of 12 and 6 are 1, 2, 3, 6.

Example 2:

Input: a = 25, b = 30 **Output:** 2 **Explanation:** The common factors of 25 and 30 are 1, 5.

Constraints:

* `1 <= a, b <= 1000`

Code Snippets

C++:

```
class Solution {
public:
```

```
int commonFactors(int a, int b) {


}
};
```

Java:

```
class Solution {
public int commonFactors(int a, int b) {


}
}
```

Python3:

```
class Solution:
def commonFactors(self, a: int, b: int) -> int:
```