Problem 1071: Greatest Common Divisor of Strings

Problem Information

Difficulty: Easy
Acceptance Rate: 53.01%
Paid Only: No
Tags: Math, String

Problem Description

For two strings `s` and `t`, we say "`t` divides `s`" if and only if `s = t + t + t + ... + t + t` (i.e., `t` is concatenated with itself one or more times).

Given two strings `str1` and `str2`, return _the largest string_`x` _such that_`x` _divides both_`str1` _and_`str2`.

Example 1:

Input: str1 = "ABCABC", str2 = "ABC" **Output:** "ABC"

Example 2:

Input: str1 = "ABABAB", str2 = "ABAB" **Output:** "AB"

Example 3:

Input: str1 = "LEET", str2 = "CODE" **Output:** ""

Constraints:

* `1 <= str1.length, str2.length <= 1000` * `str1` and `str2` consist of English uppercase letters.

Code Snippets

C++:

```
class Solution {
public:
string gcdOfStrings(string str1, string str2) {

}
};
```

Java:

```
class Solution {
public String gcdOfStrings(String str1, String str2) {

}
}
```

Python3:

```
class Solution:
def gcdOfStrings(self, str1: str, str2: str) -> str:
```