

Problem 43: Multiply Strings

Problem Information

Difficulty: Medium

Acceptance Rate: 43.09%

Paid Only: No

Tags: Math, String, Simulation

Problem Description

Given two non-negative integers `num1`` and `num2`` represented as strings, return the product of `num1`` and `num2``, also represented as a string.

Note: You must not use any built-in BigInteger library or convert the inputs to integer directly.

Example 1:

Input: `num1 = "2", num2 = "3"` **Output:** `"6"`

Example 2:

Input: `num1 = "123", num2 = "456"` **Output:** `"56088"`

Constraints:

* `1 <= num1.length, num2.length <= 200`` * `num1`` and `num2`` consist of digits only. * Both `num1`` and `num2`` do not contain any leading zero, except the number `0`` itself.

Code Snippets

C++:

```
class Solution {  
public:
```

```
string multiply(string num1, string num2) {  
  
}  
};
```

Java:

```
class Solution {  
    public String multiply(String num1, String num2) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def multiply(self, num1: str, num2: str) -> str:
```