Problem 166: Fraction to Recurring Decimal

Problem Information

Difficulty: Medium
Acceptance Rate: 30.18%
Paid Only: No
Tags: Hash Table, Math, String

Problem Description

Given two integers representing the `numerator` and `denominator` of a fraction, return _the fraction in string format_.

If the fractional part is repeating, enclose the repeating part in parentheses

If multiple answers are possible, return **any of them**.

It is **guaranteed** that the length of the answer string is less than `104` for all the given inputs.

Note that if the fraction can be represented as a _finite length string_ , you **must** return it.

Example 1:

Input: numerator = 1, denominator = 2 **Output:** "0.5"

Example 2:

Input: numerator = 2, denominator = 1 **Output:** "2"

Example 3:

Input: numerator = 4, denominator = 333 **Output:** "0.(012)"

Constraints:

* `-231 <= numerator, denominator <= 231 - 1` * `denominator != 0`

Code Snippets

C++:

```
class Solution {
public:
string fractionToDecimal(int numerator, int denominator) {

}
};
```

Java:

```
class Solution {
public String fractionToDecimal(int numerator, int denominator) {

}
}
```

Python3:

```
class Solution:
def fractionToDecimal(self, numerator: int, denominator: int) -> str:
```