**166. Fraction to Recurring Decimal**

Medium

10932213Add to ListShare

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.

**Example 1:**

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

**Output:** "0.5"

**Example 2:**

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

**Output:** "2"

**Example 3:**

**Input:** numerator = 2, denominator = 3

**Output:** "0.(6)"

**Example 4:**

**Input:** numerator = 4, denominator = 333

**Output:** "0.(012)"

**Example 5:**

**Input:** numerator = 1, denominator = 5

**Output:** "0.2"

**Constraints:**

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