

# Problem 1447: Simplified Fractions

## Problem Information

Difficulty: **Medium**

Acceptance Rate: 69.15%

Paid Only: No

Tags: Math, String, Number Theory

## Problem Description

Given an integer  $n$ , return a list of all **simplified** fractions between  $0$  and  $1$  (exclusive) such that the denominator is less-than-or-equal- to  $n$ . You can return the answer in **any order**.

**Example 1.**

**Input:**  $n = 2$  **Output:**  $["1/2"]$  **Explanation:**  $"1/2"$  is the only unique fraction with a denominator less-than-or-equal-to 2.

**Example 2.**

**Input:**  $n = 3$  **Output:**  $["1/2", "1/3", "2/3"]$

**Example 3.**

**Input:**  $n = 4$  **Output:**  $["1/2", "1/3", "1/4", "2/3", "3/4"]$  **Explanation:**  $"2/4"$  is not a simplified fraction because it can be simplified to  $"1/2"$ .

**Constraints:**

$1 \leq n \leq 100$

## Code Snippets

**C++:**

```
class Solution {  
public:  
    vector<string> simplifiedFractions(int n) {  
  
    }  
};
```

**Java:**

```
class Solution {  
    public List<String> simplifiedFractions(int n) {  
  
    }  
}
```

**Python3:**

```
class Solution:  
    def simplifiedFractions(self, n: int) -> List[str]:
```