Problem 227: Basic Calculator II

Problem Information

Difficulty: Medium
Acceptance Rate: 46.39%
Paid Only: No
Tags: Math, String, Stack

Problem Description

Given a string `s` which represents an expression, _evaluate this expression and return its value_.

The integer division should truncate toward zero.

You may assume that the given expression is always valid. All intermediate results will be in the range of `[-231, 231 - 1]`.

Note: You are not allowed to use any built-in function which evaluates strings as mathematical expressions, such as `eval()`.

Example 1:

Input: s = "3+2*2" **Output:** 7

Example 2:

Input: s = " 3/2 " **Output:** 1

Example 3:

Input: s = " 3+5 / 2 " **Output:** 5

Constraints:

* `1 <= s.length <= 3 * 105` * `s` consists of integers and operators `('+', '-', '*', '/')` separated by some number of spaces. * `s` represents **a valid expression**. * All the integers in the expression are non-negative integers in the range `[0, 231 - 1]`. * The answer is **guaranteed** to fit in a **32-bit integer**.

Code Snippets

C++:

```
class Solution {
public:
int calculate(string s) {

}
};
```

Java:

```
class Solution {
public int calculate(String s) {

}
}
```

Python3:

```
class Solution:
def calculate(self, s: str) -> int:
```