**Question #25**

**Basic Calculator**

**Difficulty :Medium Category :Stacks**

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**.

**Good luck!**

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