Implement a basic calculator to evaluate a simple expression string.

The expression string contains only non-negative integers, '+', '-', '\*', '/' operators, and open '(' and closing parentheses ')'. 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 = "1+1"

**Output:** 2

**Example 2:**

**Input:** s = "6-4/2"

**Output:** 4

**Example 3:**

**Input:** s = "2\*(5+5\*2)/3+(6/2+8)"

**Output:** 21

**Example 4:**

**Input:** s = "(2+6\*3+5-(3\*14/7+2)\*5)+3"

**Output:** -12

**Example 5:**

**Input:** s = "0"

**Output:** 0

**Constraints:**

* 1 <= s <= 104
* s consists of digits, '+', '-', '\*', '/', '(', and ')'.
* s is a **valid** expression.