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Java   ● Autocomplete

772. Basic Calculator III

Hard   👍 721   👎 236   Add to List   Share

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 $[-2^{31}, 2^{31} - 1]$.

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:

- $1 <= s <= 10^4$
- `s` consists of digits, `'+'`, `'-'`, `'*'`, `'/'`, `'('`, and `')'`.
- `s` is a **valid** expression.

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