

# Problem 224: Basic Calculator

## Problem Information

**Difficulty:** Hard

**Acceptance Rate:** 46.34%

**Paid Only:** No

**Tags:** Math, String, Stack, Recursion

## Problem Description

Given a string `s` representing a valid expression, implement a basic calculator to evaluate it, and return \_the result of the evaluation\_.

**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 = " 2-1 + 2 " **Output:** 3

**Example 3:**

**Input:** s = "(1+(4+5+2)-3)+(6+8)" **Output:** 23

**Constraints:**

\* `1 <= s.length <= 3 \* 105` \* `s` consists of digits, `"+", "-`, `"(, ")"` , and `"\n"`. \* `s` represents a valid expression. \* `"+` is **not** used as a unary operation (i.e., `"+1"` and `"+(2 + 3)"` is invalid). \* `"-` could be used as a unary operation (i.e., `"-1"` and `"--(2 + 3)"` is valid). \* There will be no two consecutive operators in the input. \* Every number and running calculation will fit in a signed 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:
```