

224. Basic Calculator

- 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:

- $1 \leq s.length \leq 3 * 10^5$
- s consists of digits, '+', '-', '(', ')', and ' '.
- 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.