

150. Evaluate Reverse Polish Notation

Evaluate the value of an arithmetic expression in Reverse Polish Notation

(http://en.wikipedia.org/wiki/Reverse_Polish_notation).

Valid operators are +, -, *, /. Each operand may be an integer or another expression.

Note:

- Division between two integers should truncate toward zero.
- The given RPN expression is always valid. That means the expression would always evaluate to a result and there won't be any divide by zero operation.

Example 1:

Input: ["2", "1", "+", "3", "*"]

Output: 9

Explanation: $((2 + 1) * 3) = 9$

Example 2:

Input: ["4", "13", "5", "/", "+"]

Output: 6

Explanation: $(4 + (13 / 5)) = 6$

Example 3:

Input: ["10", "6", "9", "3", "+", "-11", "*", "/", "*", "17", "+", "5", "+"]

Output: 22

Explanation:

$$\begin{aligned} & ((10 * (6 / ((9 + 3) * -11))) + 17) + 5 \\ &= ((10 * (6 / (12 * -11))) + 17) + 5 \\ &= ((10 * (6 / -132)) + 17) + 5 \\ &= ((10 * 0) + 17) + 5 \\ &= (0 + 17) + 5 \\ &= 17 + 5 \\ &= 22 \end{aligned}$$