

Arithmetic expression evaluation

Goal. Evaluate infix expressions.

(1 + ((2 + 3) * (4 * 5)))

operand

operator

Two-stack algorithm. [E. W. Dijkstra]

- Value: push onto the value stack.
- Operator: push onto the operator stack.
- Left parenthesis: ignore.
- Right parenthesis: pop operator and two values; push the result of applying that operator to those values onto the operand stack.

Context. An interpreter!

value stack
operator stack

