Reverse Precedence

Description

What if arithmetic operator precedence were reversed? Could you handle it?

Expressions within parentheses is still evaluated first, but + and - precede * and /. Like with traditional arithmetic, "ties" (e.g. + and -) are evaluated in the order they appear.

Input

A valid arithmetic expression, using positive decimal integers, parentheses, and the operators +, -, and *.

Intermediate values are guaranteed never to exceed +- 1,000,000,000.

Output

The value of the expression.

Input	Input
2 * 1 + 1	(20) * (2 + 1) + 1
Output	Output
4	80

Use stacks.