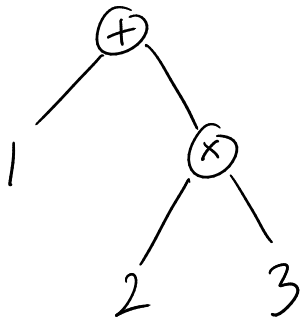
$1 + 2 \times 3 = 7$ because order of operations

= ~~what order to do the operations?~~

$0 \times 397^{6432} = 0$

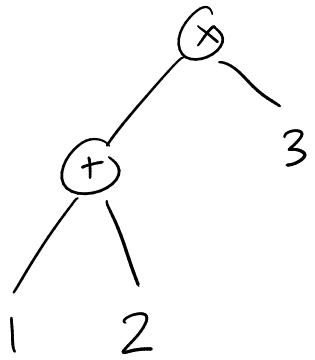
$1 + 2x = 5$

$1 + 2 \times 3$



$(1 + (2 \times 3))$

$(1+2) \times 3$



$((1+2) \times 3)$

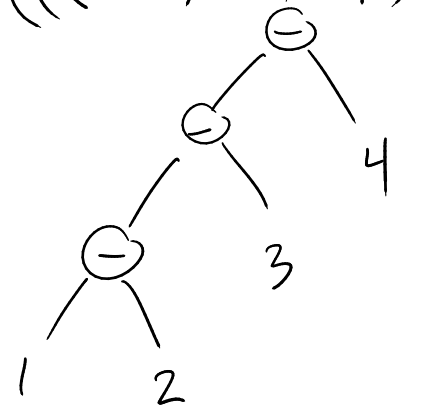
"order of operations" → where parens should go.

or what order to insert parentheses.

Typically each infix binary operator has a "precedence", typically a number.

High number = high precedence = put parens around this before lower prec. things = "stickier glue" "stronger magnet"

$1+2+3+4=10$ $(((1-2)-3)-4)$



$+, -$ "associate to the left"
"left associative"

ie. $a-b-c-d\ldots$

$=(((a-b)-c)-d)-\ldots$

$2^{3^{4^5}} = \left(2^{\left(3^{\left(4^5\right)}\right)}\right)$ — exponents are right associative.