

Language translation / processing

interpreter / compiler

Scanning



tokens

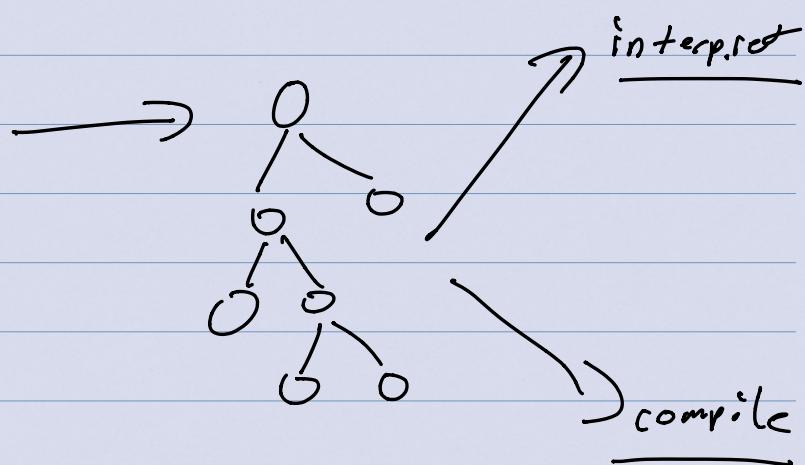


parser



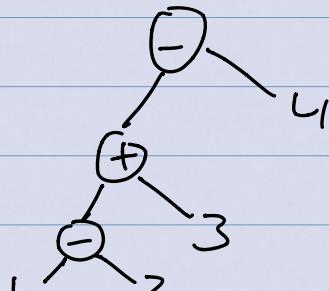
parse tree

ntcalc



"1 + 2"

$(1 - 2) + 3$



expression ::= operand '+' operand]

operand ::= integer]

1 + 2

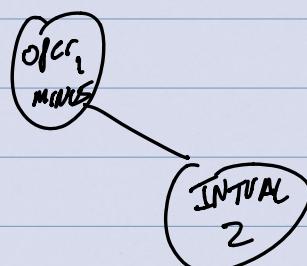
33 + 400

2 + 1

- (2)

- (1 + 2)

≈

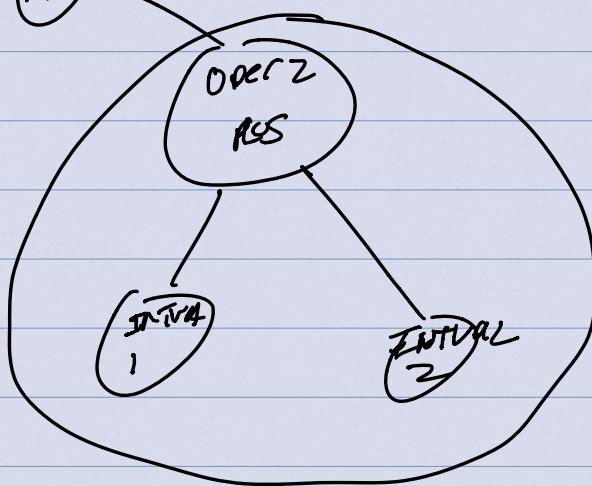


1 + 2

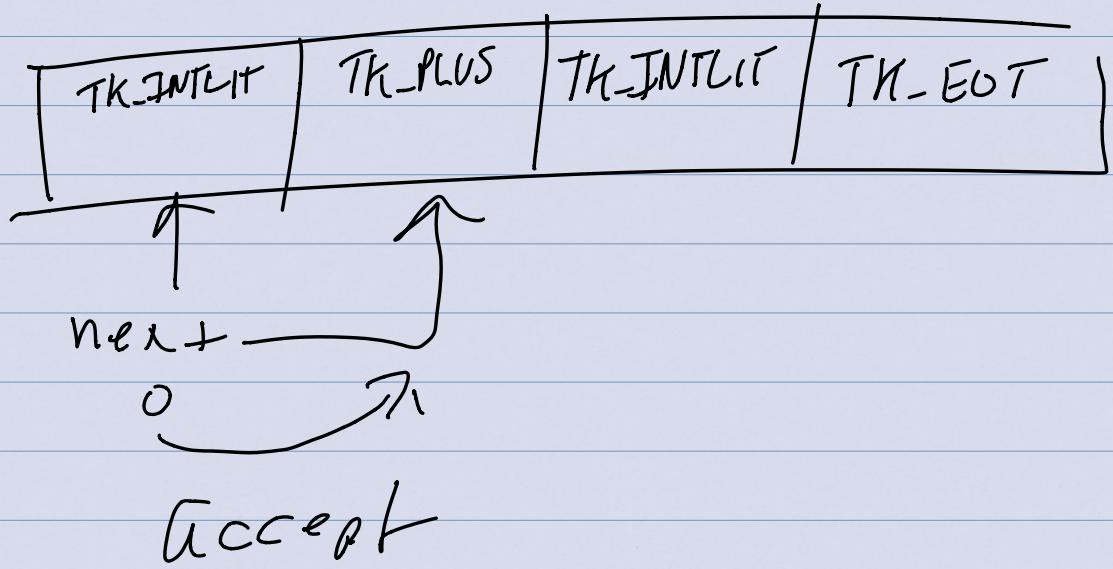
EXPR
OPR2
RES

EXPR
INTVAL
1

EXPR
INTVAL
2



expression ::= operand '+' operand
operand ::= integer

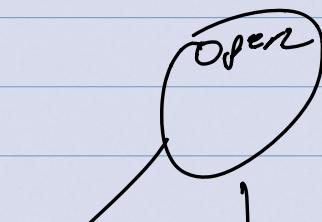


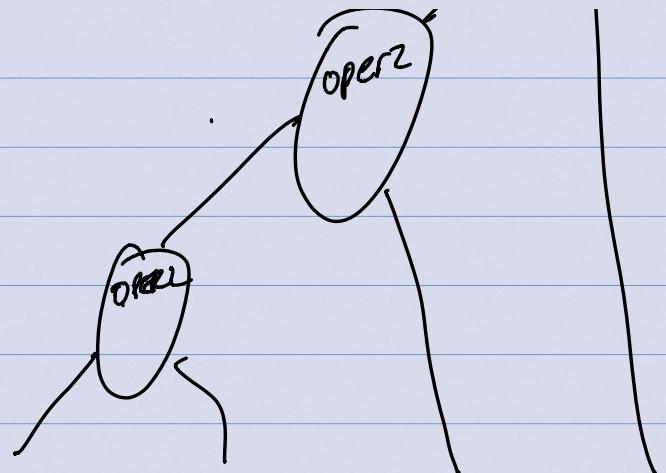
1

2

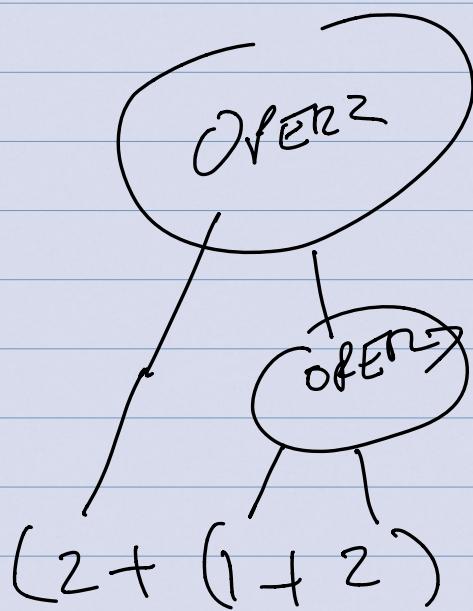
3

1+2+3-4





[+ 2 +] - 1



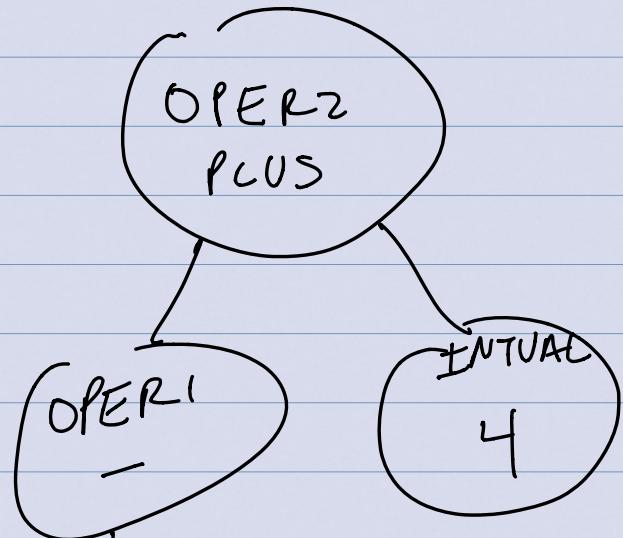
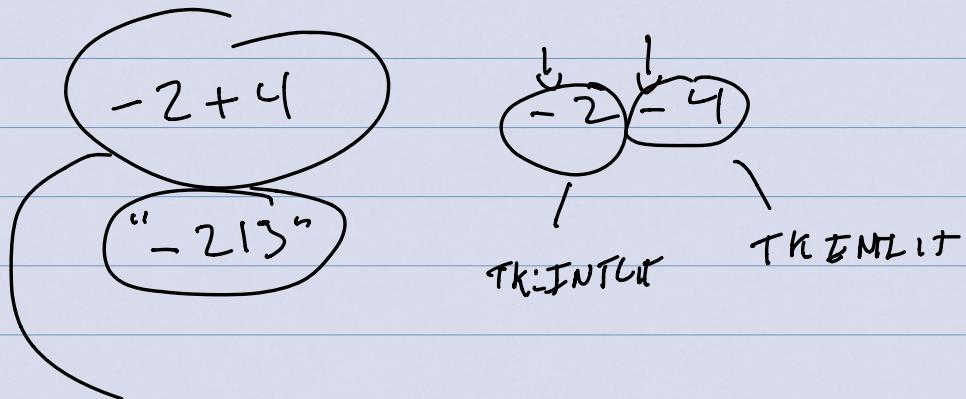
(2 + (1 + 2))

expression ::= operand '+' operand
operand ::= integer

expression ::= operand (operator operand)*
operand ::= integer

'+' '-' '*' '/'

↓
expression ::= operand (operator operand)*
operand ::= integer /
↓
| '-' operand



INTVAL
2

$$1 + 2 + 3$$

OPERZ
↓
OPERZ
↓

$$1 + 2 + 3$$

1 + 2 + 3 + 4

