<u>Grammer – BNF – Yahav Yehoshua Bariah - 326295417</u>

expr : comp-expr ((KEYWORD:AND|KEYWORD:OR) comp-expr)*

AND : '&&'

OR :'||'

comp-expr : NOT comp-expr

: arith-expr ((EE|LT|GT|LTE|GTE) arith-expr)*

NOT : '!'

EE : '=='

LT : '<'

GT : '>'

LTE : '<='

GTE : '>='

arith-expr : term ((PLUS | MINUS) term)*

PLUS : '+'

MINUS : '-'

term : factor ((MUL|DIV|MOD) factor)*

MUL : '*'

DIV : '/'

MOD : '%'

factor : (PLUS | MINUS) factor

: call

call : atom (LPAREN (expr (COMMA expr)*)? RPAREN)?

LPAREN : '('

RPAREN : ')'

COMMA : ','

atom : INT | IDENTIFIER

: LPAREN expr RPAREN

: Defun : Lambd INT : DIGIT*

DIGIT : 0|1|2|3|4|5|6|7|8|9

IDENTIFIER : (Char | '_')*

Char : 'a' | 'b' | 'c' | 'd' | 'e' | 'f' | 'g' | 'h' | 'i' | 'j' | 'k' | 'l' | 'm' | 'n' | 'o' | 'p' | 'q' | 'r' | 's' | 't' | 'u' | 'v' | 'w' | 'x' | 'y' | 'z' | 'A' | 'B' | 'C' | 'D' | 'E' | 'F' | 'G' | 'H' | 'l' | 'J' | 'K' | 'L' | 'M' | 'N' | 'O' | 'Internal College (A)

| 'P' | 'Q' | 'R' | 'S' | 'T' | 'U' | 'V' | 'W' | 'X' | 'Y' | 'Z'

Defun : KEYWORD:Defun IDENTIFIER? LPAREN (IDENTIFIER (COMMA IDENTIFIER)*)?

RPAREN ARROW expr

ARROW : '->'

Lambd : KEYWORD:Lambd IDENTIFIER ((COMMA IDENTIFIER)*)? DOT LPREAN expr RPAREN

LPREAN INT ((COMMA NUMBER)*)? RPAREN

DOT : '.'