Full Grammar

Rule 0 S' -> start

Rule 1 start -> statements

Rule 2 start -> <empty>

Rule 3 statements -> statement statements

Rule 4 statements -> statement

Rule 5 statement -> simple\_stmt SEMICOLON

Rule 6 statement -> compound\_stmt END

Rule 7 simple\_stmt -> expression\_stmt

Rule 8 simple\_stmt -> include\_stmt

Rule 9 simple\_stmt -> assign\_stmt

Rule 10 simple\_stmt -> assign\_global\_stmt

Rule 11 simple\_stmt -> assign\_this\_stmt

Rule 12 simple\_stmt -> increment\_stmt

Rule 13 simple\_stmt -> decrement\_stmt

Rule 14 simple\_stmt -> return\_stmt

Rule 15 simple\_stmt -> break\_stmt

Rule 16 simple\_stmt -> class\_instantiation\_stmt

Rule 17 simple\_stmt -> class\_setAttribute\_stmt

Rule 18 compound\_stmt -> if\_stmt

Rule 19 compound\_stmt -> while\_stmt

Rule 20 compound\_stmt -> for\_stmt

Rule 21 compound\_stmt -> function\_decl\_stmt

Rule 22 compound\_stmt -> class\_decl\_stmt

Rule 23 expression\_stmt -> expression

Rule 24 include\_stmt -> INCLUDE ID

Rule 25 assign\_stmt -> ID ASSIGN expression

Rule 26 assign\_global\_stmt -> GLOBAL ID ASSIGN expression

Rule 27 assign\_this\_stmt -> THIS DOT ID ASSIGN expression

Rule 28 increment\_stmt -> expression PLUS PLUS

Rule 29 decrement\_stmt -> expression MINUS MINUS

Rule 30 return\_stmt -> RETURN elements

Rule 31 break\_stmt -> BREAK

Rule 32 if\_stmt -> IF expression DO statements elif\_blocks

Rule 33 elif\_blocks -> elif\_block elif\_blocks

Rule 34 elif\_blocks -> else\_block

Rule 35 elif\_blocks -> <empty>

Rule 36 elif\_block -> ELIF expression DO statements

Rule 37 else\_block -> ELSE statements

Rule 38 while\_stmt -> WHILE expression DO statements

Rule 39 for\_stmt -> FOR EACH ID IN element DO statements

Rule 40 class\_decl\_stmt -> CLASS ID DO statements

Rule 41 class\_instantiation\_stmt -> ID ASSIGN NEW ID LPAREN RPAREN

Rule 42 class\_setAttribute\_stmt -> ID DOT ID ASSIGN expression

Rule 43 class\_getAttribute\_expr -> ID DOT ID

Rule 44 class\_getAttribute\_expr -> ID DOT function\_call\_expr

Rule 45 function\_decl\_stmt -> FUN ID LPAREN elements RPAREN DO statements

Rule 46 function\_call\_expr -> ID LPAREN elements RPAREN

Rule 47 lambda\_function\_expr -> LPAREN LAMBDA elements DO statements RPAREN LPAREN elements RPAREN

Rule 48 expression -> unary\_expr

Rule 49 expression -> binary\_expr

Rule 50 unary\_expr -> boolean\_expr

Rule 51 unary\_expr -> not\_expr

Rule 52 unary\_expr -> number\_expr

Rule 53 unary\_expr -> id\_expr

Rule 54 unary\_expr -> string\_expr

Rule 55 unary\_expr -> list\_expr

Rule 56 unary\_expr -> dictionary\_expr

Rule 57 unary\_expr -> parse\_text\_expr

Rule 58 unary\_expr -> group\_expr

Rule 59 unary\_expr -> uplus\_expr

Rule 60 unary\_expr -> uminus\_expr

Rule 61 unary\_expr -> class\_getAttribute\_expr

Rule 62 unary\_expr -> function\_call\_expr

Rule 63 unary\_expr -> lambda\_function\_expr

Rule 64 binary\_expr -> arithmetic\_expr

Rule 65 binary\_expr -> conditional\_expr

Rule 66 boolean\_expr -> TRUE

Rule 67 boolean\_expr -> TRUELOWERCASE

Rule 68 boolean\_expr -> FALSE

Rule 69 boolean\_expr -> FALSELOWERCASE

Rule 70 not\_expr -> NOT expression

Rule 71 number\_expr -> NUMBER

Rule 72 id\_expr -> ID

Rule 73 string\_expr -> STRING1

Rule 74 string\_expr -> STRING2

Rule 75 list\_expr -> LSBRACKET elements RSBRACKET

Rule 76 elements -> element COMMA elements

Rule 77 elements -> element

Rule 78 elements -> <empty>

Rule 79 element -> expression

Rule 80 dictionary\_expr -> LCBRACKET dictionary\_objects RCBRACKET

Rule 81 dictionary\_objects -> dictionary\_object COMMA dictionary\_objects

Rule 82 dictionary\_objects -> dictionary\_object

Rule 83 dictionary\_objects -> <empty>

Rule 84 dictionary\_object -> key COLON value

Rule 85 key -> STRING1

Rule 86 key -> STRING2

Rule 87 value -> expression

Rule 88 parse\_text\_expr -> SELECTOR LPAREN elements RPAREN

Rule 89 group\_expr -> LPAREN expression RPAREN

Rule 90 uplus\_expr -> PLUS expression

Rule 91 uminus\_expr -> MINUS expression

Rule 92 arithmetic\_expr -> expression PLUS expression

Rule 93 arithmetic\_expr -> expression MINUS expression

Rule 94 arithmetic\_expr -> expression MULTIPLY expression

Rule 95 arithmetic\_expr -> expression DIVIDE expression

Rule 96 arithmetic\_expr -> expression POW expression

Rule 97 arithmetic\_expr -> expression MOD expression

Rule 98 conditional\_expr -> expression AND expression

Rule 99 conditional\_expr -> expression OR expression

Rule 100 conditional\_expr -> expression XOR expression

Rule 101 conditional\_expr -> expression EQUALS expression

Rule 102 conditional\_expr -> expression NOT\_EQUALS expression

Rule 103 conditional\_expr -> expression GREATER\_THAN expression

Rule 104 conditional\_expr -> expression LESS\_THAN expression

Rule 105 conditional\_expr -> expression GREATER\_THAN\_OR\_EQUAL expression

Rule 106 conditional\_expr -> expression LESS\_THAN\_OR\_EQUAL expression