

Program → Functions

Functions → epsilon | Function Functions

Function → FUNCTION Identifier SEMI BEGINPARAMS Declarations ENDPARAMS BEGINLOCALS Declarations  
ENDLOCALS BEGINBODY Statements ENDBODY

Identifier → IDENT

Identifiers → Identifier

Declarations → epsilon | Declaration SEMI Declarations

Declaration → Identifiers COLON INTEGER  
| Identifiers COLON ARRAY LBRACKET NUMBER RBRACKET OF INTEGER

Statements → Statement SEMI Statements | epsilon

Statementss → ELSE Statements | epsilon

Statement → Var ASSIGN Expression  
| IF Bool\_Exp THEN Statements Statementss ENDIF  
| WHILE Bool\_Exp BEGINLOOP Statements ENDLOOP  
| DO BEGINLOOP Statements ENDLOOP WHILE Bool\_Exp  
| READ Var  
| Write Var  
| CONTINUE  
| BREAK  
| RETURN

Bool\_Exp → Expression Comp Expression  
| NOT Bool\_Exp

Comp → EQ  
| NEQ  
| LT  
| GT  
| LTE  
| GTE

Expression → Multiplicative\_Expr  
| Multiplicative\_Expr ADD Expression  
| Multiplicative\_Expr SUB Expression

Multiplicative\_Expr → Term  
| Multiplicative\_Expr Term MULT Multiplicative\_Expr  
| Multiplicative\_Expr Term DIV Multiplicative\_Expr  
| Multiplicative\_Expr Term MOD Multiplicative\_Expr

Term → Var  
| NUMBER  
| LPAREN Expression RPAREN  
| Identifier LPAREN Expression RPAREN  
| Identifier LPAREN Expression COMMA RPAREN  
| Identifier LPAREN RPAREN

Var → Identifier  
| Identifier LBRACKET Expression RBRACKET