Function Call

FUNCTION_CALL → identifier (Arguments)

Arguments→ identifier Arguments' | ε

Arguments'→ ,identifier Arguments' | ε

Term

Term → number | identifier | Function_Call

Equation

MathEquation→ Equation | Bracket_Equation

Equation → Term Eq

Bracket_Equation → (Equation) Equation'

Eq → Arithmatic_Operation Equation_type Equation'

Equation2 → Term Equation'

Equation' → Arithmatic_Operation Equation_type | ε

Equation_Type → Equation2 | Bracket_Equation

Expression

Expression → String | Term | MathEquation

Assignment_Statement

Assignment_Statement → identifier := Expression

Datatype

Datatype→ int | float | string

Declaration Statement

Declaration_Statement→Datatype Var Declaration_Statement'

Declaration_Statement' → ; | Idlist;

Idlist→ ,Var Idlist'

Idlist'→ , Var Idlist' | ε

Var→identifier | Assignement_Statement

Write Statement

Write_Statement → write Write_Content ;

Write_Content → Expression | endl

Read Statement

Read_Statement→ read identifier;

Return Statement

Return_Statement→ return Expression;

Condition

Condition→ identifier Condition_Op Term

Condition_Op→ <> | < | > | =

Boolean Opeartor

Boolean_Operator→ && | | |

Condition Statement

Conditon_Statement→ Condition Conditions

Conditions→ Boolean_Operator Condition Conditions' | ε

Conditions'→ Boolean_Operator Condition Conditions' | ε

If Statement

If_Statement → if Condition_Statement then Set_Of_Statements Else_Cases

Else_Cases→ Else_If_Statement | Else_Statement | end

Else If Statement

Else_If_Statment → elseif Condition_Statement then Set_Of_Statements Else_Cases

Else Statement

Else_Statement→ else Set_Of_Statement end

Repeat Statement

Repeat_Statement → repeat Set_of_Statements until Condition_Statement

Function Name

FunctionName → Identifier

Parameter

Parameter→ Datatype identifier

Function Declaration

Function_Declaration→ Datatype FunctionName (Parameters)

Parameters→ Parameter Parameters' | ε

Parameters'→,Parameter Parameters' | ε

Function Body

Statement→ Assignment_Statement | Declaration_Statement | Write_Statement | Read_Statement | Condition_Statement | If_Statement | Repeat_Statement | Function_Statement

Function_Body→ { Set_Of_Statement Return_Statement }

Set_Of_Statement→ Statement Set_Of_Statement'

Set_Of_Statement'→ Statement Set_Of_Statement' | ε

Function Statement

Function_Statement → Function_Declaration Function_Body

Main Function

Main_Function→ Datatype main () Function_Body

Program

Program→ Function_Statments Main_Function

Function_Statements→ Function_Statment Function_Statments' | ε

FunctionStatments'→Function_Statment Function_Statments' | ε