```
1.
                                               program id ( identifier_list );
                            program
                                               declarations
                                               subprogram\_declarations
                                               compound\_statement
2.1.
                       identifier\_list
                                               id identifier_list'
2.2.1.
                       identifier\_list'
                                               , id identifier_list'
2.2.2.
                       identifier\_list'
3.1.
                        declarations
                                               var id: type; declarations
3.2.
                        declarations
4.1.
                                 type
                                               standard\_type
4.2.
                                               array [ num .. num ] of standard_type
                                 type
5.1.
                       standard\_type
                                               integer
5.2.
                       standard\_type
                                               real
                                               subprogram_declaration ; subprogram_declarations
6.1.
            subprogram\_declarations
6.2.
            subprogram\_declarations
7.
             subprogram\_declaration
                                               subprogram\_head\ declarations
                                               subprogram\_declarations\ compound\_statement
8.
                   subprogram\_head
                                               procedure id arguments;
9.1.
                                               ( parameter_list )
                          arguments
9.2.
                          arguments
                                               id : type parameter_list'
10.1.
                      parameter\_list
10.2.1.
                                               ; id : type parameter_list'
                      parameter\_list'
10.2.2.
                      parameter_list'
11.
               compound\_statement
                                               begin
                                               optional\_statements
                                               end
12.1.
                optional\_statements
                                               statement\_list
12.2.
                optional\_statements
13.1.
                      statement\_list
                                               statement statement_list'
13.2.1.
                      statement\_list'
                                               ; statement statement_list'
13.2.2.
                      statement\_list'
14.1.
                          statement
                                               variable assignop expression
14.2.
                          statement
                                               procedure\_statement
14.3.
                          statement
                                               compound\_statement
14.4.
                          statement
                                               while expression do statement
14.5.
                          statement
                                               if expression then statement else'
15.1.
                                else'
                                               else statement
15.2.
                                else'
16.
                            variable
                                               id array_access
17.1.
                                               [ expression ]
                        array\_access
17.2.
                        array\_access
18.
                procedure\_statement
                                               call id optional_expressions
19.1.
                optional\_expressions
                                               ( expression_list )
19.2.
                optional\_expressions
20.1.
                      expression\_list
                                               expression expression_list'
                                               , expression\ expression\_list'
20.2.1.
                      expression\_list'
20.2.2.
                      expression\_list'
21.
                          expression
                                               simple\_expression related\_expression
22.1.
                  related\_expression
                                               relop simple_expression
22.2.
                  related\_expression
23.1.1.
                  simple\_expression
                                               term simple_expression'
23.1.2.
                  simple\_expression
                                               sign term simple_expression'
23.2.1.
                  simple\_expression'
                                               addop term simple_expression'
23.2.2.
                  simple\_expression'
```

```
24.1.
                                                factor term'
                                term
                                                mulop factor term'
24.2.1.
                                term'
24.2.2.
                                term'
                                                \mathbf{id}\ \mathit{factor'}
                               factor
25.1.1.
25.1.2.
                               factor
                                                num
25.1.3.
                                                ( expression )
                               factor
25.1.4.
                               factor
                                                not factor
                                                [ expression ]
25.2.1.
                              factor'
25.2.1.
                              factor'
                                                \epsilon
26.1.
                                 sign
                                                +
26.2.
                                 sign
```