```
1.1.
                                             program id ( identifier_list ) ;
                          program
                                             declarations
                                             subprogram\_declarations
                                             compound\_statement
1.2.
                                             program id ( identifier_list ) ;
                          program
                                             declarations \\
                                             compound\_statement
1.3.
                          program
                                             program id ( identifier_list );
                                             subprogram\_declarations
                                             compound\_statement
1.4.
                                             program id ( identifier_list );
                          program
                                             compound\_statement
2.1.
                     identifier\_list
                                             id
                     identifier\_list
2.2.
                                             identifier\_list, id
                      declarations
3.1.
                                             var id: type;
3.2.
                      declarations
                                      \rightarrow
                                             declarations var id: type;
4.1.
                               type
                                             standard\_type
4.2.
                                             array [ num .. num ] of standard_type
                               type
5.1.
                     standard\_type
                                             integer
5.2.
                     standard\_type
                                             real
6.1.
          subprogram\_declarations
                                             subprogram\_declaration;
                                             subprogram\_declarations\ subprogram\_declaration;
          subprogram\_declarations
6.2.
                                      \rightarrow
7.1.
           subprogram\_declaration
                                      \rightarrow
                                             subprogram\_head\ declarations
                                             subprogram\_declarations\ compound\_statement
7.2.
           subprogram\_declaration
                                             subprogram\_head\ declarations
                                      \rightarrow
                                             subprogram\_declarations
7.3.
                                             subprogram\_head\ declarations
           subprogram\_declaration
                                      \rightarrow
                                             compound\_statement
7.4.
                                             subprogram\_head\ declarations
           subprogram\_declaration
                                             procedure id;
8.1.
                 subprogram\_head
                                      \rightarrow
8.2.
                 subprogram\_head
                                             procedure id arguments;
                        arguments
9.1.
                                             ( parameter_list )
10.1.
                    parameter_list
                                             id: type
10.2.
                                             parameter_list ; id : type
                    parameter\_list
11.1.
             compound\_statement
                                             begin
                                             optional\_statements
                                             end
11.2.
             compound\_statement
                                             begin
                                             \mathbf{end}
12.
              optional\_statements
                                             statement\_list
13.1.
                     statement\_list
                                             statement
13.2.
                     statement\_list
                                             statement_list ; statement
14.1.
                         statement
                                             variable assignop expression
14.2.
                         statement
                                             procedure\_statement
14.3.
                         statement
                                             compound\_statement
                                             if expression then statement
14.4.
                         statement
14.5.
                                             if expression then statement else statement
                         statement
14.6.
                         statement
                                             while expression do statement
15.1.
                           variable
15.2.
                           variable
                                             id [ expression ]
16.1.
              procedure\_statement
                                             call id
```

```
16.2.
               procedure\_statement
                                         \rightarrow
                                                 call id ( expression_list )
17.1.
                                                 expression
                      expression\_list
17.2.
                      expression\_list
                                                 expression\_list , expression
                                         \rightarrow
18.1.
                                                 simple\_expression
                          expression
18.2.
                          expression
                                                 simple\_expression \ \ \mathbf{relop} \ simple\_expression
19.1.
                  simple\_expression
                                                 term
19.2.
                  simple\_expression
                                                 sign\ term
19.3.
                  simple\_expression
                                                 simple\_expression \ \mathbf{addop} \ term
20.1.
                                 term
                                                 factor
20.2.
                                 term
                                         \rightarrow
                                                 term mulop factor
21.1.
                               factor
                                                 id
21.2.
                               factor
                                                 id [ expression ]
                                         \rightarrow
21.3.
                               factor
                                                 num
21.4.
                                                 ( expression )
                               factor
21.5.
                               factor
                                                 \mathbf{not}\ factor
22.1.
                                 sign
                                                 +
22.2.
                                 sign
```