```
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
                                       \rightarrow
5.2.
                     standard\_type
                                              real
6.1.
          subprogram\_declarations
                                              subprogram\_declaration;
                                              subprogram\_declarations\ subprogram\_declaration;
          subprogram\_declarations
6.2.
                                       \rightarrow
                                              subprogram\_head\ declarations
7.1.
           subprogram\_declaration
                                       \rightarrow
                                              subprogram\_declarations\ compound\_statement
7.2.
           subprogram\_declaration
                                              subprogram\_head
                                       \rightarrow
                                              subprogram\_declarations\ compound\_statement
7.3.
                                              subprogram\_head\ declarations
           subprogram\_declaration
                                       \rightarrow
                                              compound\_statement
7.4.
           subprogram\_declaration
                                              subprogram\_head\ compound\_statement
                                              procedure id arguments;
8.
                  subprogram\_head
                                       \rightarrow
9.1.
                                              ( parameter_list )
                         arguments
9.2.
                         arguments
                                              \epsilon
10.1.
                     parameter_list
                                       \rightarrow
                                              id: type
10.2.
                                              parameter_list ; id : type
                     parameter\_list
11.
              compound\_statement
                                              begin
                                              optional\_statements
                                              end
12.1.
               optional\_statements
                                              statement\_list
12.2.
               optional\_statements
                                              \epsilon
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
                                       \rightarrow
                                              compound\_statement
14.4.
                         statement
                                              if expression then statement
14.5.
                         statement
                                              if expression then statement else statement
14.6.
                                              while expression do statement
                         statement
15.1.
                           variable
                                              id
15.2.
                           variable
                                              id [ expression ]
16.1.
              procedure\_statement
                                              call id
                                       \rightarrow
16.2.
              procedure\_statement
                                              call id ( expression_list )
```

```
17.1.
                     expression\_list
                                       \rightarrow
                                               expression
17.2.
                     expression\_list
                                               expression_list , expression
18.1.
                         expression
                                               simple\_expression
                                       \rightarrow
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 addop term
20.1.
                               term
20.2.
                               term
                                               term mulop factor
21.1.
                              factor
                                       \rightarrow
                                               id
21.2.
                              factor
                                               id [ expression ]
21.3.
                              factor
                                               num
21.4.
                                               ( expression )
                              factor
21.5.
                              factor \rightarrow
                                               not factor
22.1.
                                sign \rightarrow
                                               +
22.2.
                                sign
```