```
1.
                                                program id ( identifier_list ) ;
                            program
                                                declarations
                                                subprogram\_declarations
                                                compound\_statement
2.1.
                      identifier\_list
                                                id
2.2.
                      identifier\_list
                                                identifier\_list, id
                                        \rightarrow
3.1.
                        declarations
                                                declarations var id: type;
3.2.
                        declarations
4.1.
                                type
                                                standard\_type
4.2.
                                                array [ num .. num ] of standard_type
                                type
5.1.
                      standard\_type
                                        \rightarrow
                                                integer
5.2.
                      standard_{-}type
                                                real
6.1.
          subprogram\_declarations
                                                subprogram_declarations subprogram_declaration ;
6.2.
          subprogram\_declarations
7.
           subprogram\_declaration
                                        \rightarrow
                                                subprogram\_head\ declarations
                                                subprogram\_declarations\ compound\_statement
8.
                  subprogram\_head
                                                procedure id arguments;
9.1.
                         arguments
                                        \rightarrow
                                                ( parameter_list )
9.2.
                         arguments
                                                \epsilon
10.1.
                     parameter\_list
                                                id: type
                                        \rightarrow
10.2.
                                                parameter_list ; id : type
                     parameter\_list
11.
                                                begin
              compound\_statement
                                        \rightarrow
                                                optional\_statements
                                                end
12.1.
               optional_statements
                                                statement\_list
12.2.
               optional\_statements
                                        \rightarrow
                                                \epsilon
13.1.
                      statement\_list
                                                statement
13.2.
                      statement\_list
                                                statement_list ; statement
14.1.
                          statement
                                                variable assignop expression
14.2.
                                                procedure\_statement
                          statement
14.3.
                          statement
                                                compound\_statement
14.4.
                          statement
                                                if expression then statement
14.5.
                          statement
                                                if expression then statement else statement
14.6.
                          statement
                                                while expression do statement
                            variable
15.1.
                                                id
15.2.
                            variable
                                                id [ expression ]
                                        \rightarrow
16.1.
               procedure\_statement
                                                call id
16.2.
                                                call id ( expression_list )
               procedure\_statement
                                        \rightarrow
17.1.
                     expression\_list
                                                expression
17.2.
                                        \rightarrow
                                                expression_list , expression
                     expression\_list
18.1.
                         expression
                                        \rightarrow
                                                simple\_expression
18.2.
                         expression
                                                simple\_expression 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
                                        \rightarrow
                                                term mulop factor
21.1.
                              factor
                                        \rightarrow
21.2.
                              factor
                                                id [ expression ]
21.3.
                              factor
                                                num
21.4.
                              factor
                                                ( expression )
21.5.
                              factor
                                                not factor
22.1.
                                sign
                                                +
22.2.
                                sign
                                        \rightarrow
```