

```

1  <prog>           ::= PROGRAM <prog-name> VAR <dec-list> BEGIN <stmt-list> END.
2  <prog-name>      ::= id
3  <dec-list>        ::= <dec> | <dec-list> ; <dec>
4  <dec>             ::= <id-list> : <type>
5  <type>            ::= INTEGER
6  <id-list>         ::= id | <id-list> , id
7  <stmt-list>       ::= <stmt> | <stmt-list> ; <stmt>
8  <stmt>            ::= <assign> | <read> | <write> | <for>
9  <assign>          ::= id := <exp>
10 <exp>             ::= <term> | <exp> + <term> | <exp> - <term>
11 <term>            ::= <factor> | <term> * <factor> | <term> DIV <factor>
12 <factor>          ::= id | int | ( <exp> )
13 <read>            ::= READ ( <id-list> )
14 <write>           ::= WRITE ( <id-list> )
15 <for>             ::= FOR <index-exp> DO <body>
16 <index-exp>       ::= id := <exp> TO <exp>
17 <body>            ::= <stmt> | BEGIN <stmt-list> END

```

**Figure 5.2** Simplified Pascal grammar.