```
:= dec-list
program
                     ::= Boolean-exp
exp
                           let dec-list in exp
                           | if (Boolean-exp) then (exp) else (exp)
                     ::= integer | ( exp ) | identifier {parameter-exp}
atomic-exp
                     ::= integer | ( exp ) | identifier
parameter-exp
dec-list
                     := dec \{ dec \}
dec
                     ::= identifier = exp | identifier argument-list = exp
argument-list
                     ::= identifier {identifier}
Boolean-exp
                         relational-exp {Boolean-operator relational-exp}
Boolean-operator ::= \&\& | | |
relational-exp
              ::= list-exp [relational-operator list-exp]
relational-operator ::= == |/=|<|<=|>|>=
              ::= primary-exp : list-exp | tail atomic-exp | [ ] | primary-exp
list-exp
            ::= term {adding-operator term}
primary-exp
               ::= + | -
adding-operator
                     ::= factor {multiplying-operator factor}
term
multiplying-operator ::= * | /
factor
                     ::= [\mathbf{head}] \text{ atomic-exp}
```