```
Program
                 MainClass ClassDecl*
                  class id { public static void main ( String [] id )
 MainClass
                      { Statement } }
                  class id { VarDecl* MethodDecl* }
  ClassDecl
                  class id extends id { VarDecl* MethodDecl* }
    VarDecl
                 Type id;
            \rightarrow
                  public Type id ( FormalList )
MethodDecl
                      { VarDecl* Statement* return Exp; }
                   Type id FormalRest*
 FormalList
FormalRest
                   , Type id
       Type
                  int []
                   boolean
                   int
                   id
                 { Statement* }
  Statement
              \rightarrow
                  if (Exp ) Statement else Statement
                  while (Exp ) Statement
                  System.out.println (Exp );
                 id = Exp;
                 id [Exp] = Exp;
       Exp
                 Exp op Exp
                 Exp [Exp]
                 Exp . length
                  Exp . id (ExpList)
                  INTEGER_LITERAL
                  true
                   false
                   id
                  this
                  new int [ Exp ]
                  new id ( )
                  ! Exp
              \rightarrow (Exp)
                  Exp ExpRest*
    ExpList
    ExpRest
                   , Exp
```