*Program* -> *MainClass ClassDeclIter*

*MainClass* -> **class** *id* { **public static void main** ( **String** [] *id* ) { *StatementIter* } }

*ClassDecl* -> **class** *id* { *VarDeclIter MethodDeclIter* }

-> **class** *id* **extends** *id* { VarDeclIter MethodDeclIter }

ClassDeclIter -> ClassDecl ClassDeclIter

-> Epsilon

*VarDecl* -> *Type id* ;

VarDeclIter -> VarDecl VarDeclIter

-> Epsilon

*MethodDecl* -> **public** *Type id* ( *FormalList* ) { *VarDeclIter StatementIter* **return** *Exp* ; }

MethodDeclIter -> MethodDectl MethodDectIter

-> Epsilon

*FormalList* -> *Type id FormalRestIter*

-> Epsilon

*FormalRestIter -> FormalRest FormalRestIter*

-> Epsilon

*FormalRest* -> , *Type id*

-> Epsilon

*Type* -> **int** []

-> **boolean**

-> **int**

-> *id*

*Statement* -> { *StatementIter* }

-> **if** ( *Exp* ) *Statement* **else** *Statement*

-> **while** ( *Exp* ) *Statement*

-> **System.out.println** ( *Exp* ) ;

-> *id* = *Exp* ;

-> *id* [ *Exp* ] = *Exp* ;

*StatementIter -> Statement StatementIter*

*-> Epsilon*

*Exp* -> *INTEGER\_LITERAL ExpLeft*

-> **true** *ExpLeft*

-> **false** *ExpLeft*

-> *id ExpLeft*

-> **this** *ExpLeft*

-> **new int** [ *Exp* ] *ExpLeft*

-> **new** *id* ( ) *ExpLeft*

-> ! *Exp ExpLeft*

-> ( *Exp* ) *ExpLeft*

ExpLeft -> *op Exp ExpLeft*

-> [ *Exp* ]ExpLeft

-> . **length ExpLeft**

-> . *id* ( *ExpList* )ExpLeft

-> Epsilon

*ExpList* -> *Exp ExpRestIter*

-> Epsilon

ExpRestIter -> ExpRest ExpRestIter

-> ExpRest

-> Epsilon

ExpRest -> , Exp

Operation -> Equal

-> Less

-> More

-> NotEqual

-> Summ

-> Substract

-> Multiply

-> Divide

-> And

-> Or

-> Not

Equal -> ==

Less -> <

More -> >

NotEqual -> !==

Summ -> +

Substract -> -

Multiply -> \*

Divide -> /

And -> &&

Or -> ||

Not -> !