

# lista enumerada de Derivações

- (1) Program  $\hookrightarrow$  com base no cálculo de FIRST+
- (2) MainClass
- (3) ClassDeclaration
- (4) VarDeclaration
- (5) MethodDeclaration
- (6) Params
- (7) Type  $\rightarrow$  Int [L]?
- (8) Type  $\rightarrow$  boolean
- (9) Type  $\rightarrow$  Id
- (10) Statement  $\rightarrow \{ (\text{Statement})^* \}$
- (11) Statement  $\rightarrow$  if (Expression) Statement Else Statement
- (12) Statement  $\rightarrow$  While (Expression) Statement
- (13) Statement  $\rightarrow$  System.out.println (Expression);
- (14) Statement  $\rightarrow$  ID Statement'
- (15) Statement'  $\rightarrow$  = Expression;
- (16) Statement'  $\rightarrow$  [Expression] = Expression;
- (17) Expression  $\rightarrow$  RelExpression Expression'
- (18) Expression'  $\rightarrow$  && RelExpression Expression'
- (19) Expression'  $\rightarrow$  &
- (20) RelExpression  $\rightarrow$  add Expression RelExpression'
- (21) RelExpression'  $\rightarrow$  <
- (22) RelExpression'  $\rightarrow$  >

- (23) RelExpression  $\rightarrow =$
- (24) RelExpression  $\rightarrow \neq$
- (25) RelExpression  $\rightarrow \epsilon$
- (26) AddExpression  $\rightarrow$  MultExpression addExpression
- (27) AddExpression  $\rightarrow +$  MultExpression addExpression
- (28) AddExpression  $\rightarrow -$  MultExpression addExpression
- (29) AddExpression  $\rightarrow \epsilon$
- (30) MultExpression  $\rightarrow$  UnExpression MultExpression
- (31) MultExpression  $\rightarrow *$  UnExpression MultExpression
- (32) MultExpression  $\rightarrow /$  UnExpression MultExpression
- (33) MultExpression  $\rightarrow \epsilon$
- (34) UnExpression  $\rightarrow !$  UnExpression  $\rightarrow \text{if } \dots \text{ then } \dots \text{ else } \dots$
- (35)  $\rightarrow -$  UnExpression
- (36)  $\rightarrow$  IntegerLiteral
- (37)  $\rightarrow$  True
- (38)  $\rightarrow$  False
- (39)  $\rightarrow$  newInt [Expressions]
- (40)  $\rightarrow$  this
- (41)  $\rightarrow ($
- (42)  $\rightarrow Id$
- (43) PrimExpression  $\rightarrow Id$  primExp  
 $\rightarrow$  this primExp

(44)

(45)

(46)

$\rightarrow \text{new Id}() \text{ primExp}'$

$\rightarrow (\text{Exp}) \text{ PrimExp}'$

(47)  $\text{primExp}' \rightarrow \cdot \text{Id primExp}'' \text{ PrimExp}'$

(48)  $\text{PrimExp}' \rightarrow \epsilon$

(49)  $\text{PrimExp}'' \rightarrow ( (\text{ExpList})? )$

(50)  $\text{PrimExp}'' \rightarrow \epsilon$

(51)  $\text{ExpressionList} \rightarrow \text{Expression} (, \text{Expression})^*$









