Test Case #13

	Stack

. LexToken(INT,'int',1,0)
INT . LexToken(ID,'fact',1,4)
Type . LexToken(ID,'fact',1,4)
Type ID . LexToken(LEFTPAREN,'(',1,9)
Type ID LEFTPAREN . LexToken(INT,'int',1,10)
Type ID LEFTPAREN INT . LexToken(ID,'x',1,14)
Type ID LEFTPAREN Type . LexToken(ID,'x',1,14)
Type ID LEFTPAREN Type ID . LexToken(RIGHTPAREN,')',1,15)
Type ID LEFTPAREN Variable . LexToken(RIGHTPAREN,')',1,15)
Type ID LEFTPAREN Formals . LexToken(RIGHTPAREN,')',1,15)
Type ID LEFTPAREN Formals RIGHTPAREN . LexToken(LEFTBRACE,'{',1,17)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE . LexToken(IF,'if',1,52)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF . LexToken(LEFTPAREN,'(',1,55)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN . LexToken(ID,'x',1,56)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN ID . LexToken(GREATER,'>',1,57)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN LValue . LexToken(GREATER,'>',1,57)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression . LexToken(GREATER,'>',1,57)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression GREATER . LexToken(INTCONSTANT,'1',1,58)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression CompareOperator . LexToken(INTCONSTANT,'1',1,58)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression CompareOperator INTCONSTANT . LexToken(RIGHTPAREN,')',1,59)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression CompareOperator Constant . LexToken(RIGHTPAREN,')',1,59)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression CompareOperator Expression . LexToken(RIGHTPAREN,')',1,59)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression . LexToken(RIGHTPAREN,')',1,59)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN . LexToken(RETURN,'return',1,61)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN . LexToken(ID,'x',1,68)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN ID . LexToken(MULTIPLICATION,'*',1,70)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN LValue . LexToken(MULTIPLICATION,'*',1,70)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression . LexToken(MULTIPLICATION,'*',1,70)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression MULTIPLICATION . LexToken(ID,'fact',1,72)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator . LexToken(ID,'fact',1,72)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID . LexToken(LEFTPAREN,'(',1,76)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN . LexToken(ID,'x',1,77)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN ID . LexToken(MINUS,'-',1,78)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN LValue . LexToken(MINUS,'-',1,78)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression . LexToken(MINUS,'-',1,78)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression MINUS . LexToken(INTCONSTANT,'1',1,
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression ArithmaticOperator . LexToken(INTCO
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression ArithmaticOperator INTCONSTANT . Le
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression ArithmaticOperator Constant . LexTok
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression ArithmaticOperator Expression . LexTo
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Expression . LexToken(RIGHTPAREN,')',1,80)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN ExpressionList . LexToken(RIGHTPAREN,')',1,80)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Actuals . LexToken(RIGHTPAREN,')',1,80)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator ID LEFTPAREN Actuals RIGHTPAREN . LexToken(SEMICOLON,';',1,8
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator Call . LexToken(SEMICOLON,';',1,81)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression ArithmaticOperator Expression . LexToken(SEMICOLON,';',1,81)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression . LexToken(SEMICOLON,';',1,81)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN RETURN Expression SEMICOLON . LexToken(ELSE,'else',1,84)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN ReturnStatement . LexToken(ELSE,'else',1,84)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement . LexToken(ELSE,'else',1,84)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE . LexToken(RETURN,'return',1,89)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE RETURN . LexToken(INTCONSTANT,'1',1,96)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE RETURN INTCONSTANT . LexToken(SEMICOLON,';',1,97)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE RETURN Constant . LexToken(SEMICOLON,';',1,97)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE RETURN Expression . LexToken(SEMICOLON,';',1,97)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE RETURN Expression SEMICOLON . LexToken(RIGHTBRACE,'}',1,99)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE ReturnStatement . LexToken(RIGHTBRACE,'}',1,99)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IF LEFTPAREN Expression RIGHTPAREN Statement ELSE Statement . LexToken(RIGHTBRACE,'}',1,99)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE IfStatement . LexToken(RIGHTBRACE,'}',1,99)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE Statement . LexToken(RIGHTBRACE,'}',1,99)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE Statements . LexToken(RIGHTBRACE,'}',1,99)
Type ID LEFTPAREN Formals RIGHTPAREN LEFTBRACE Statements RIGHTBRACE . LexToken(VOID,'void',1,101)
Type ID LEFTPAREN Formals RIGHTPAREN StatementBlock . LexToken(VOID,'void',1,101)
FunctionDeclaration . LexToken(VOID,'void',1,101)
Declaration . LexToken(VOID,'void',1,101)
Declaration VOID . LexToken(ID,'main',1,106)
Declaration VOID ID . LexToken(LEFTPAREN,'(',1,111)
Declaration VOID ID LEFTPAREN . LexToken(RIGHTPAREN,')',1,112)
Declaration VOID ID LEFTPAREN RIGHTPAREN . LexToken(LEFTBRACE,'{',1,114)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE . LexToken(INT,'int',1,189)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE INT . LexToken(ID,'x',1,193)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE Type . LexToken(ID,'x',1,193)

```
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE Type ID . LexToken(SEMICOLON,';',1,194)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE Variable . LexToken(SEMICOLON,';',1,194)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE Variable SEMICOLON . LexToken(INT,'int',1,197)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration . LexToken(INT,'int',1,197)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration INT . LexToken(ID,'total',1,201)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration Type . LexToken(ID,'total',1,201)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration Type ID . LexToken(SEMICOLON,';',1,206)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration Variable . LexToken(SEMICOLON,';',1,206)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration Variable SEMICOLON . LexToken(PRINTLN,'println',1,209)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration VariableDeclaration . LexToken(PRINTLN,'println',1,209)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VariableDeclaration VaribleDeclarations . LexToken(PRINTLN,'println',1,209)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations . LexToken(PRINTLN,'println',1,209)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN . LexToken(LEFTPAREN,'(',1,217)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN . LexToken(STRINGCONSTANT,'"factorial of 10 is"',1,218)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN STRINGCONSTANT . LexToken(COMMA,',',1,238)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Constant . LexToken(COMMA,',',1,238)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression . LexToken(COMMA,',',1,238)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA . LexToken(ID,'fact',1,240)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID . LexToken(LEFTPAREN,'(',1,245)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN . LexToken(INTCONSTANT,'10',1,246)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN INTCONSTANT . LexToken(RIGHTPAREN,')',1,248)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN Constant . LexToken(RIGHTPAREN,')',1,248)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN Expression . LexToken(RIGHTPAREN,')',1,248)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN ExpressionList . LexToken(RIGHTPAREN,')',1,248)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN Actuals . LexToken(RIGHTPAREN,')',1,248)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ID LEFTPAREN Actuals RIGHTPAREN . LexToken(COMMA,',',1,249)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Call . LexToken(COMMA,',',1,249)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Expression . LexToken(COMMA,',',1,249)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Expression COMMA . LexToken(STRINGCONSTANT,'"from the recursive functio
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Expression COMMA STRINGCONSTANT . LexToken(RIGHTPAREN,')',1,280)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Expression COMMA Constant . LexToken(RIGHTPAREN,')',1,280)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Expression COMMA Expression . LexToken(RIGHTPAREN,')',1,280)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA Expression COMMA ExpressionList . LexToken(RIGHTPAREN,')',1,280)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN Expression COMMA ExpressionList . LexToken(RIGHTPAREN,')',1,280)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN ExpressionList . LexToken(RIGHTPAREN,')',1,280)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN ExpressionList RIGHTPAREN . LexToken(SEMICOLON,';',1,281)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PRINTLN LEFTPAREN ExpressionList RIGHTPAREN SEMICOLON . LexToken(ID,'total',1,284)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations PrintStatement . LexToken(ID,'total',1,284)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement . LexToken(ID,'total',1,284)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement ID . LexToken(ASSIGNOP,'=',1,290)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement LValue . LexToken(ASSIGNOP,'=',1,290)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement LValue ASSIGNOP . LexToken(INTCONSTANT,'1',1,292)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement LValue ASSIGNOP INTCONSTANT . LexToken(SEMICOLON,';',1,293)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement LValue ASSIGNOP Constant . LexToken(SEMICOLON,';',1,293)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement LValue ASSIGNOP Expression . LexToken(SEMICOLON,';',1,293)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Expression . LexToken(SEMICOLON,';',1,293)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Expression SEMICOLON . LexToken(ID,'x',1,295)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement . LexToken(ID,'x',1,295)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement ID . LexToken(ASSIGNOP,'=',1,297)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement LValue . LexToken(ASSIGNOP,'=',1,297)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement LValue ASSIGNOP . LexToken(INTCONSTANT,'1',1,299)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement LValue ASSIGNOP INTCONSTANT . LexToken(SEMICOLON,';',1,300)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement LValue ASSIGNOP Constant . LexToken(SEMICOLON,';',1,300)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement LValue ASSIGNOP Expression . LexToken(SEMICOLON,';',1,300)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Expression . LexToken(SEMICOLON,';',1,300)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Expression SEMICOLON . LexToken(FOR,'for',1,303)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement . LexToken(FOR,'for',1,303)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR . LexToken(LEFTPAREN,'(',1,307)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN . LexToken(SEMICOLON,';',1,309)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON . LexToken(ID,'x',1,311)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON ID . LexToken(LESSEQUAL,'<=',1,312)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON LValue . LexToken(LESSEQUAL,'<=',1,312)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression . LexToken(LESSEQUAL,'<=',1,312)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression LESSEQUAL . LexToken(INTCONSTANT,'10',1,3
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression CompareOperator . LexToken(INTCONSTANT,'
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression CompareOperator INTCONSTANT . LexToken(S
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression CompareOperator Constant . LexToken(SEMIC
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression CompareOperator Expression . LexToken(SEM
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression . LexToken(SEMICOLON,';',1,316)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON . LexToken(RIGHTPAREN,')',1,318
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN . LexToken(LEFTBRA
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE . LexTo
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE ID . LexT
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue .
```

Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE LValue A
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Expressio
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Expressio
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN LEFTBRACE Stateme
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN StatementBlock . Le
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN Statement . LexToke
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement ForStatement . LexToken(PRINTLN,'println',1,355)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement . LexToken(PRINTLN,'println',1,355)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN . LexToken(LEFTPAREN,'(',1,363)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN . LexToken(STRINGCONSTANT,'"iterative result of 10! i
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN STRINGCONSTANT . LexToken(COMMA,',',1,393)
Declaration COMMA VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Constant . LexToken(COMMA,',',1,393)
Declaration COMMA VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Expression . LexToken(COMMA,',',1,393)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Expression COMMA . LexToken(ID,'total',1,395)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Expression COMMA ID . LexToken(RIGHTPAREN,')',1,40
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Expression COMMA LValue . LexToken(RIGHTPAREN,')'
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Expression COMMA Expression . LexToken(RIGHTPARE
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN Expression COMMA ExpressionList . LexToken(RIGHTP
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN ExpressionList . LexToken(RIGHTPAREN,')',1,400)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN ExpressionList RIGHTPAREN . LexToken(SEMICOLON,';'
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PRINTLN LEFTPAREN ExpressionList RIGHTPAREN SEMICOLON . LexToken(RI
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement PrintStatement . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement Statement . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement Statements . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statement Statements . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statement Statements . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statement Statement Statements . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statements . LexToken(RIGHTBRACE,'}',1,403)
Declaration VOID ID LEFTPAREN RIGHTPAREN LEFTBRACE VaribleDeclarations Statements RIGHTBRACE . LexToken(CLASS,'class',1,405)
Declaration VOID ID LEFTPAREN RIGHTPAREN StatementBlock . LexToken(CLASS,'class',1,405)
Declaration FunctionDeclaration . LexToken(CLASS,'class',1,405)
Declaration Declaration . LexToken(CLASS,'class',1,405)
Declaration Declaration CLASS . LexToken(ID,'CS4110',1,411)
Declaration Declaration CLASS ID . LexToken(LEFTBRACE,'{',1,418)
Declaration Declaration CLASS ID LEFTBRACE . LexToken(INT,'int',1,421)
Declaration Declaration CLASS ID LEFTBRACE INT . LexToken(ID,'Funny',1,425)
Declaration Declaration CLASS ID LEFTBRACE Type . LexToken(ID,'Funny',1,425)
Declaration Declaration CLASS ID LEFTBRACE Type ID . LexToken(SEMICOLON,';',1,430)
Declaration Declaration CLASS ID LEFTBRACE Variable . LexToken(SEMICOLON,';',1,430)
Declaration Declaration CLASS ID LEFTBRACE Variable SEMICOLON . LexToken(DOUBLE,'double',1,433)
Declaration Declaration CLASS ID LEFTBRACE VariableDeclaration . LexToken(DOUBLE,'double',1,433)
Declaration Declaration CLASS ID LEFTBRACE Field . LexToken(DOUBLE,'double',1,433)
Declaration Declaration CLASS ID LEFTBRACE Field DOUBLE . LexToken(ID,'funny',1,440)
Declaration Declaration CLASS ID LEFTBRACE Field Type . LexToken(ID,'funny',1,440)
Declaration Declaration CLASS ID LEFTBRACE Field Type ID . LexToken(SEMICOLON,';',1,445)
Declaration Declaration CLASS ID LEFTBRACE Field Variable . LexToken(SEMICOLON,';',1,445)
Declaration Declaration CLASS ID LEFTBRACE Field Variable SEMICOLON . LexToken(BOOLEAN,'boolean',1,448)

Declaration Declaration CLASS ID LEFTBRACE Field VariableDeclaration . LexToken(BOOLEAN,'boolean',1,448)
Declaration Declaration CLASS ID LEFTBRACE Field Field . LexToken(BOOLEAN,'boolean',1,448)
Declaration Declaration CLASS ID LEFTBRACE Field Field BOOLEAN . LexToken(ID,'flag',1,456)
Declaration Declaration CLASS ID LEFTBRACE Field Field Type . LexToken(ID,'flag',1,456)
Declaration Declaration CLASS ID LEFTBRACE Field Field Type ID . LexToken(SEMICOLON,';',1,460)
Declaration Declaration CLASS ID LEFTBRACE Field Field Variable . LexToken(SEMICOLON,';',1,460)
Declaration Declaration CLASS ID LEFTBRACE Field Field Variable SEMICOLON . LexToken(STRING,'string',1,463)
Declaration Declaration CLASS ID LEFTBRACE Field Field VariableDeclaration . LexToken(STRING,'string',1,463)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field . LexToken(STRING,'string',1,463)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field STRING . LexToken(ID,'s',1,470)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Type . LexToken(ID,'s',1,470)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Type ID . LexToken(SEMICOLON,';',1,471)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Variable . LexToken(SEMICOLON,';',1,471)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Variable SEMICOLON . LexToken(INT,'int',1,474)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field VariableDeclaration . LexToken(INT,'int',1,474)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field . LexToken(INT,'int',1,474)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field INT . LexToken(LEFTBRACKET,'[',1,478)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type . LexToken(LEFTBRACKET,'[',1,478)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type LEFTBRACKET . LexToken(RIGHTBRACKET,']',1,479)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type LEFTBRACKET RIGHTBRACKET . LexToken(ID,'a',1,481)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type . LexToken(ID,'a',1,481)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Type ID . LexToken(SEMICOLON,';',1,482)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Variable . LexToken(SEMICOLON,';',1,482)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Variable SEMICOLON . LexToken(ID,'flag',1,485)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field VariableDeclaration . LexToken(ID,'flag',1,485)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Field . LexToken(ID,'flag',1,485)
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field Field ID . error
Declaration Declaration CLASS ID LEFTBRACE Field Field Field Field . error
Declaration Declaration CLASS ID LEFTBRACE Field Field Field . error
Declaration Declaration CLASS ID LEFTBRACE . error
Declaration Declaration CLASS . error
Declaration . error
. LexToken(BOOLEANCONSTANT,'true',1,492)
. LexToken(ID,'Funny',1,499)
ID . LexToken(ASSIGNOP,'=',1,505)
. error
. LexToken(SEMICOLON,';',1,513)
. LexToken(ID,'funny',1,515)
ID . error
. LexToken(INTCONSTANT,'123456',1,523)
. LexToken(ID,'E',1,529)
ID . error
. LexToken(INTCONSTANT,'7',1,531)
. LexToken(ID,'s',1,535)
ID . LexToken(ASSIGNOP,'=',1,537)
. error
. LexToken(SEMICOLON,';',1,552)
. LexToken(LEFTPAREN,'(',1,561)
. LexToken(ID,'x',1,562)
ID . error
. LexToken(LEFTPAREN,'(',1,566)
. LexToken(ID,'Funny',1,567)
ID . error
. LexToken(INTCONSTANT,'10',1,573)
. LexToken(LESS,'<',1,577)
. LexToken(RIGHTPAREN,')',1,579)
. LexToken(LEFTPAREN,'(',1,589)
. LexToken(ID,'s',1,590)
ID . error
. LexToken(STRINGCONSTANT,'" have fun !"',1,593)
. LexToken(SEMICOLON,';',1,607)
. LexToken(ID,'a',1,610)
ID . error
. LexToken(NEWARRAY,'newarray',1,614)
. LexToken(INTCONSTANT,'20',1,624)
. LexToken(INT,'int',1,628)
INT . LexToken(RIGHTPAREN,')',1,631)
Type . LexToken(RIGHTPAREN,')',1,631)
. error
. LexToken(RIGHTBRACE,'}',1,634)
. $end

Action

Shift and goto state 13
Reduce rule [Type ->INT] with ['int'] and goto state 8
Shift and goto state 19
Shift and goto state 26
Shift and goto state 13
Reduce rule [Type ->INT] with ['int'] and goto state 35
Shift and goto state 58
Reduce rule [Variable -> Type ID] with [None,'x'] and goto state 39
Reduce rule [Formals -> Variable] with [None] and goto state 37
Shift and goto state 60
Shift and goto state 62
Shift and goto state 106
Shift and goto state 163
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 198
Shift and goto state 146
Reduce rule [CompareOperator -> GREATER] with ['>'] and goto state 137
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 183
Reduce rule [Expression -> Expression CompareOperator Expression] with [None,None,None] and goto state 198
Shift and goto state 219
Shift and goto state 110
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 167
Shift and goto state 141
Reduce rule [ArithmaticOperator -> MULTIPLICATION] with ['*'] and goto state 136
Shift and goto state 131
Shift and goto state 154
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 190
Shift and goto state 140
Reduce rule [ArithmaticOperator -> MINUS] with ['-'] and goto state 136
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 182
Reduce rule [Expression -> Expression ArithmaticOperator Expression] with [None,None,None] and goto state 190
Reduce rule [ExpressionList -> Expression] with [None] and goto state 189
Reduce rule [Actuals -> ExpressionList] with [None] and goto state 187
Shift and goto state 214
Reduce rule [Call -> ID LEFTPAREN Actuals RIGHTPAREN] with ['fact','(',None,')'] and goto state 98
Reduce rule [Expression -> Call] with [None] and goto state 182
Reduce rule [Expression -> Expression ArithmaticOperator Expression] with [None,None,None] and goto state 167
Shift and goto state 202
Reduce rule [ReturnStatement -> RETURN Expression SEMICOLON] with ['return',None,';'] and goto state 91
Reduce rule [Statement -> ReturnStatement] with [None] and goto state 233
Shift and goto state 241
Shift and goto state 110
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 167
Shift and goto state 202
Reduce rule [ReturnStatement -> RETURN Expression SEMICOLON] with ['return',None,';'] and goto state 91
Reduce rule [Statement -> ReturnStatement] with [None] and goto state 245
Reduce rule [IfStatement -> IF LEFTPAREN Expression RIGHTPAREN Statement ELSE Statement] with ['if','(',None,')',None,'else',None] and goto state 87
Reduce rule [Statement -> IfStatement] with [None] and goto state 84
Reduce rule [Statements -> Statement] with [None] and goto state 81
Shift and goto state 132
Reduce rule [StatementBlock -> LEFTBRACE Statements RIGHTBRACE] with ['{',None,'}'] and goto state 79
Reduce rule [FunctionDeclaration -> Type ID LEFTPAREN Formals RIGHTPAREN StatementBlock] with [None,'fact','(',None,')',None] and goto state 4
Reduce rule [Declaration -> FunctionDeclaration] with [None] and goto state 2
Shift and goto state 10
Shift and goto state 23
Shift and goto state 30
Shift and goto state 43
Shift and goto state 62
Shift and goto state 13
Reduce rule [Type ->INT] with ['int'] and goto state 35
Shift and goto state 58

Reduce rule [Variable -> Type ID] with [None,'x'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 83
Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 35
Shift and goto state 58
Reduce rule [Variable -> Type ID] with [None,'total'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 83
Reduce rule [VaribleDeclarations -> VariableDeclaration] with [None] and goto state 133
Reduce rule [VaribleDeclarations -> VariableDeclaration VaribleDeclarations] with [None,None] and goto state 80
Shift and goto state 111
Shift and goto state 169
Shift and goto state 113
Reduce rule [Constant -> STRINGCONSTANT] with [<str @ 0x1120cc348>] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 190
Shift and goto state 215
Shift and goto state 131
Shift and goto state 154
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['10'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 190
Reduce rule [ExpressionList -> Expression] with [None] and goto state 189
Reduce rule [Actuals -> ExpressionList] with [None] and goto state 187
Shift and goto state 214
Reduce rule [Call -> ID LEFTPAREN Actuals RIGHTPAREN] with ['fact','(',None,')'] and goto state 98
Reduce rule [Expression -> Call] with [None] and goto state 190
Shift and goto state 215
Shift and goto state 113
Reduce rule [Constant -> STRINGCONSTANT] with [<str @ 0x10fe28080>] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 190
Reduce rule [ExpressionList -> Expression] with [None] and goto state 230
Reduce rule [ExpressionList -> Expression COMMA ExpressionList] with [None,',',None] and goto state 230
Reduce rule [ExpressionList -> Expression COMMA ExpressionList] with [None,',',None] and goto state 203
Shift and goto state 223
Shift and goto state 237
Reduce rule [PrintStatement -> PRINTLN LEFTPAREN ExpressionList RIGHTPAREN SEMICOLON] with ['println','(',None,')',';'] and goto state 92
Reduce rule [Statement -> PrintStatement] with [None] and goto state 84
Shift and goto state 131
Reduce rule [LValue -> ID] with ['total'] and goto state 95
Shift and goto state 155
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 191
Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None,'=',None] and goto state 86
Shift and goto state 135
Reduce rule [Statement -> Expression SEMICOLON] with [None,';'] and goto state 84
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Shift and goto state 155
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 191
Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None,'=',None] and goto state 86
Shift and goto state 135
Reduce rule [Statement -> Expression SEMICOLON] with [None,';'] and goto state 84
Shift and goto state 108
Shift and goto state 165
Shift and goto state 201
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 222
Shift and goto state 145
Reduce rule [CompareOperator -> LESSEQUAL] with ['<='] and goto state 137
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['10'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 183
Reduce rule [Expression -> Expression CompareOperator Expression] with [None,None,None] and goto state 222
Shift and goto state 236
Shift and goto state 244
Shift and goto state 62
Shift and goto state 94
Reduce rule [LValue -> ID] with ['total'] and goto state 95
Shift and goto state 155

Shift and goto state 131
Reduce rule [LValue -> ID] with ['total'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 191
Shift and goto state 141
Reduce rule [ArithmaticOperator -> MULTIPLICATION] with ['*'] and goto state 136
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 182
Reduce rule [Expression -> Expression ArithmaticOperator Expression] with [None,None,None] and goto state 191
Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None,'=',None] and goto state 86
Shift and goto state 135
Reduce rule [Statement -> Expression SEMICOLON] with [None,';'] and goto state 84
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Shift and goto state 155
Shift and goto state 131
Reduce rule [LValue -> ID] with ['x'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 191
Shift and goto state 139
Reduce rule [ArithmaticOperator -> PLUS] with ['+'] and goto state 136
Shift and goto state 105
Reduce rule [Constant -> INTCONSTANT] with ['1'] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 182
Reduce rule [Expression -> Expression ArithmaticOperator Expression] with [None,None,None] and goto state 191
Reduce rule [Expression -> LValue ASSIGNOP Expression] with [None,'=',None] and goto state 86
Shift and goto state 135
Reduce rule [Statement -> Expression SEMICOLON] with [None,';'] and goto state 84
Reduce rule [Statements -> Statement] with [None] and goto state 134
Reduce rule [Statements -> Statement Statements] with [None,None] and goto state 81
Shift and goto state 132
Reduce rule [StatementBlock -> LEFTBRACE Statements RIGHTBRACE] with ['{',None,'}'] and goto state 93
Reduce rule [Statement -> StatementBlock] with [None] and goto state 249
Reduce rule [ForStatement -> FOR LEFTPAREN SEMICOLON Expression SEMICOLON RIGHTPAREN Statement] with ['for','(',';',None,';',')',None] and goto state 89
Reduce rule [Statement -> ForStatement] with [None] and goto state 84
Shift and goto state 111
Shift and goto state 169
Shift and goto state 113
Reduce rule [Constant -> STRINGCONSTANT] with [<str @ 0x10fe28080>] and goto state 96
Reduce rule [Expression -> Constant] with [None] and goto state 190
Shift and goto state 215
Shift and goto state 131
Reduce rule [LValue -> ID] with ['total'] and goto state 95
Reduce rule [Expression -> LValue] with [None] and goto state 190
Reduce rule [ExpressionList -> Expression] with [None] and goto state 230
Reduce rule [ExpressionList -> Expression COMMA ExpressionList] with [None,',',None] and goto state 203
Shift and goto state 223
Shift and goto state 237
Reduce rule [PrintStatement -> PRINTLN LEFTPAREN ExpressionList RIGHTPAREN SEMICOLON] with ['println','(',None,')',';'] and goto state 92
Reduce rule [Statement -> PrintStatement] with [None] and goto state 84
Reduce rule [Statements -> Statement] with [None] and goto state 134
Reduce rule [Statements -> Statement Statements] with [None,None] and goto state 134
Reduce rule [Statements -> Statement Statements] with [None,None] and goto state 134
Reduce rule [Statements -> Statement Statements] with [None,None] and goto state 134
Reduce rule [Statements -> Statement Statements] with [None,None] and goto state 129
Shift and goto state 180
Reduce rule [StatementBlock -> LEFTBRACE VaribleDeclarations Statements RIGHTBRACE] with ['{',None,None,'}'] and goto state 67
Reduce rule [FunctionDeclaration -> VOID ID LEFTPAREN RIGHTPAREN StatementBlock] with ['void','main','(',')',None] and goto state 4
Reduce rule [Declaration -> FunctionDeclaration] with [None] and goto state 2
Shift and goto state 11
Shift and goto state 24
Shift and goto state 32
Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 8
Shift and goto state 19
Reduce rule [Variable -> Type ID] with [None,'Funny'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 48
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47
Shift and goto state 14
Reduce rule [Type -> DOUBLE] with ['double'] and goto state 8
Shift and goto state 19
Reduce rule [Variable -> Type ID] with [None,'funny'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 48

Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47
Shift and goto state 15
Reduce rule [Type -> BOOLEAN] with ['boolean'] and goto state 8
Shift and goto state 19
Reduce rule [Variable -> Type ID] with [None,'flag'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 48
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47
Shift and goto state 16
Reduce rule [Type -> STRING] with ['string'] and goto state 8
Shift and goto state 19
Reduce rule [Variable -> Type ID] with [None,'s'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 48
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47
Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 8
Shift and goto state 20
Shift and goto state 27
Reduce rule [Type -> Type LEFTBRACKET RIGHTBRACKET] with [None,'[',']'] and goto state 8
Shift and goto state 19
Reduce rule [Variable -> Type ID] with [None,'a'] and goto state 7
Shift and goto state 18
Reduce rule [VariableDeclaration -> Variable SEMICOLON] with [None,';'] and goto state 48
Reduce rule [Field -> VariableDeclaration] with [None] and goto state 47
Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 9

Shift and goto state 13
Reduce rule [Type -> INT] with ['int'] and goto state 8