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program \rightarrow MAIN LPAREN RPAREN LCURLY list RCURLY

program.trans = list.trans

list \rightarrow list oneItem

| epsilon

list.trans = list2.trans \cup {}

oneItem \rightarrow decl

| stmt

oneItem.trans = decl.trans \cup stmt.trans

decl \rightarrow BOOL ID SEMICOLON

| INT ID SEMICOLON

decl.trans = {}

stmt \rightarrow ID ASSIGN exp SEMICOLON

| IF LPAREN exp RPAREN stmt

| WHILE LPAREN exp RPAREN stmt

| LCURLY list RCURLY

stmt.trans = list.trans \cup exp.trans \cup stmt.trans

exp \rightarrow exp TIMES exp

| exp DIVIDE exp

| exp PLUS exp

| exp LESS exp

| exp EQUALS exp

| LPAREN exp RPAREN

| ID

| BOOLLITERAL

| INTLITERAL

exp.trans = exp2.trans \cup INTLITERAL