

### C) Cálculo dos First e Follows:

#### Firsts:

FIRST[Programa] = program

FIRST[Bloco] = var, begin

FIRST[DeclaracaoSeq] = var,  $\varepsilon$

FIRST[ComandoSeq] = id, if, while, print, read,  $\varepsilon$

FIRST[Declaracao] = var

FIRST[VarList] = id

FIRST[Type] = boolean, integer, real, string

FIRST[VarList2] = ,

FIRST[Comando] = id, if, while, print, read

FIRST[Expr] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FIRST[Rel] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FIRST[ExprOpc] = ==, !=,  $\varepsilon$

FIRST[OpIgual] = ==, !=

FIRST[Adicao] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FIRST[RelOpc] = <, <=, >, >=,  $\varepsilon$

FIRST[OpRel] = <, <=, >, >=

FIRST[Termo] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FIRST[AdicaoOpc] = +, -,  $\varepsilon$

FIRST[OpAdicao] = +, -

FIRST[Fator] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FIRST[TermoOpc] = \*, /,  $\varepsilon$

FIRST[OpMult] = \*, /

### **Follows:**

FOLLOW[Programa] = \$

FOLLOW[Bloco] = \$

FOLLOW[DeclaracaoSeq] = begin

FOLLOW[ComandoSeq] = end

FOLLOW[Declaracao] = begin, var

FOLLOW[VarList] = :

FOLLOW[Type] = ;

FOLLOW[VarList2] = :

FOLLOW[Comando] = id, end, if, while, print, read

FOLLOW[Expr] = ;, then, do, )

FOLLOW[Rel] = ;, then, do, ==, !=, )

FOLLOW[ExprOpc] = ;, then, do, )

FOLLOW[OpIgu] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FOLLOW[Adicao] = ;, then, do, ==, !=, <, <=, >, >=, )

FOLLOW[RelOpc] = ;, then, do, ==, !=, )

FOLLOW[OpRel] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FOLLOW[Termo] = ;, then, do, ==, !=, <, <=, >, >=, +, -, )

FOLLOW[AdicaoOpc] = ;, then, do, ==, !=, <, <=, >, >=, )

FOLLOW[OpAdicao] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (

FOLLOW[Fator] = ;, then, do, ==, !=, <, <=, >, >=, +, -, \*, /, )

FOLLOW[TermoOpc] = ;, then, do, ==, !=, <, <=, >, >=, +, -, )

FOLLOW[OpMult] = id, integer\_const, real\_const, TRUE, FALSE, STRING\_LITERAL, (