

## Semana 6

T = "Turma"; id; ":"; "Alunos"; "4"; "("; "str"; ")" ; ";" ; "

S = Turma

P<sub>0</sub>: Turma → 'Turma' 'id' ':' 'Alunos'

P<sub>1</sub>: Alunos → 'Alunos' ';' 'Lista' ';' ;

P<sub>2</sub>: Lista → 'Aluno' 'Lista'

P<sub>3</sub>: Aluno

P<sub>4</sub>: Aluno → '(' 'str' ',' 'str' ')' ;

Documento → '(' "doc" Informação ')'

Informação → Info Informação

| 'str' Informação

| E

Info → '(' 'tit' 'str' ')'

| '(' "subtit" 'str' ')'

Par → 'PA' Par 'PF' Par

| E

Arit → Term Lista

Lista → OP Term Lista

| E

Term → NUM

OP → +

| -

| /

| \*

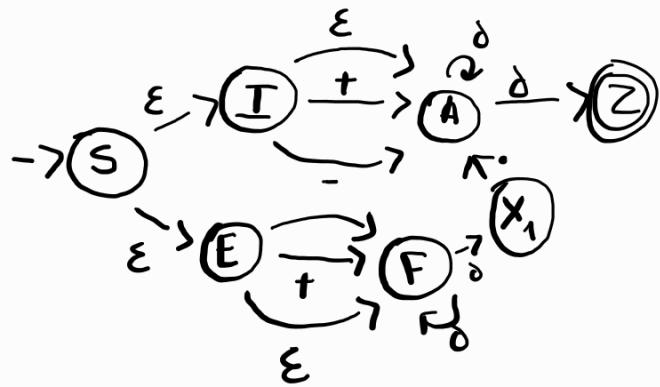
$P_1$  Lista  $\rightarrow ' [ L \text{Cont}$   
 $P_2$   $L \text{Cont} \rightarrow ' ] '$   
 $P_3$   $| Conteudo ' ] '$   
 $P_4$  Conteudo  $\rightarrow num \text{ Cont2}$   
 $P_5$   $\text{Cont2} \rightarrow \epsilon$   
 $P_6$   $| ';' Conteudo$

$la(P_2) = \text{First}(']') = \{ ']' \}$   
 $la(P_3) = \text{First}(\text{Conteudo } ']')$   
 $= \text{First}(\text{numCont2}) = \{ \text{num} \}$   
 $la(P_4) = \text{First}(\text{numCont2}) = \{ \text{num} \}$   
 $la(P_5) = \text{First}(\epsilon) = \text{Follow}(\text{Cont2})$   
 $= \text{Follow}(\text{Conteudo})$   
 $= \text{First}(']') = \{ ']' \}$

## SEBENTA

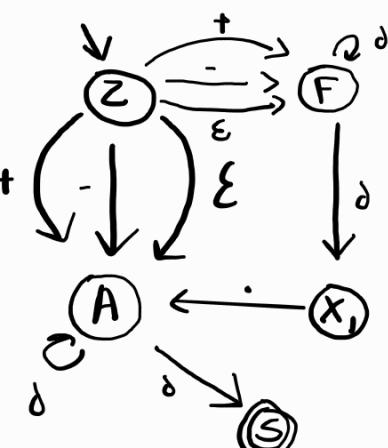
$S \rightarrow I$   
 $I E$   
 $I \rightarrow A$   
 $| '+' A$   
 $| '-' A$   
 $A \rightarrow \delta Z$   
 $| \delta A$   
 $E \rightarrow '+' F$   
 $| '-' F$   
 $| F$   
 $F \rightarrow \delta F$   
 $| \delta X_1$   
 $X_1 \rightarrow ' . ' A$   
 $Z \rightarrow \epsilon$   
 $-/-$

AND



$S \rightarrow A \delta$

$A \rightarrow Z$   
 $| Z '+'$   
 $| Z '-'$   
 $| A \delta$   
 $| X_1 :.$   
 $X_1 \rightarrow F \delta$   
 $F \rightarrow Z$   
 $| Z '+'$   
 $| Z '-'$   
 $| F \delta$   
 $Z \rightarrow \epsilon$



(+ 4.2 (\*4))

$$\text{la}(P_2) = \text{First}(\text{int}) = \{ \text{int} \}$$

$$\text{la}(P_3) = \text{First}(\text{'(' Funcão ')'}) = \{ \text{'('} \}$$

$$\text{la}(P_4) = \text{First}(\text{+' Lista}) = \{ \text{+} \}$$

$$\text{la}(P_5) = \text{First}(\text{*Lista}) = \{ \text{*} \} = \emptyset$$

$$\begin{aligned}\text{la}(P_6) &= \text{First}(\text{Exp Lista}) \\ &= \text{First}(\text{int}) \cup \text{First}(\text{'(' Funcão ')'}) \\ &= \{ \text{int}, \text{'('} \}\end{aligned}$$

$$\begin{aligned}\text{la}(P_7) &= \text{First}(\epsilon) = \text{follow(Lista)} \\ &= \text{Follow(Funcão)} = \{ \text{)} \}\end{aligned}$$

$S \rightarrow E \gamma^*$

$E \gamma \rightarrow \text{int}$   
 $\text{'(' Funcão ')'}^*$

$\text{Funcão} \rightarrow \text{+' Lista}$   
 $\text{+' Lista}^*$

$\text{Lista} \rightarrow \text{Exp Lista}$   
 $\text{Exp}^*$