

$$\forall A \rightarrow \alpha_1, A \rightarrow \alpha_2 \in P: L_A(A \rightarrow \alpha_1) \cap L_A(A \rightarrow \alpha_2) = \emptyset$$

Aplicando ao exemplo das listas:

$$L_A(P_1) = \text{First}('E' \text{ Lista2}) = \{'E'\}$$

$$L_A(P_2) = \text{First}('J') = \{'J'\}$$

$$L_A(P_3) = \text{First}(\text{ElemList}('J')) = \text{FirstN}(\text{ElemList}) = \text{First}(\text{NUM ElemList2}) = \{\text{NUM}\}$$

$$L_A(P_4) = \{\text{NUM}\}$$

$$L_A(P_5) = \text{Follow}(\text{ElemList2}) = \text{Follow}(\text{ElemList}) = \text{First}('J') = \{'J'\}$$

$$L_A(P_6) = \text{First}(',', \text{ElemList}) = \{','\}$$

Problemas: Gramáticas com prefixos comuns!

$$\begin{array}{l} A \rightarrow \alpha B \\ \quad | \alpha C \end{array} \quad \begin{array}{l} L_A(A \rightarrow \alpha B) \\ L_A(A \rightarrow \alpha C) \end{array} \supseteq \text{First}(\alpha)$$

$$\begin{array}{l} A \rightarrow A \alpha \\ \quad | B \end{array} \quad \begin{array}{l} \text{First}(A) = \text{First}(A \alpha) \cup \text{First}(B) \\ L_A(A \rightarrow A \alpha) \\ \quad \cap \\ L_A(A \rightarrow B) \end{array} \supseteq \text{First}(B)$$

① Factorização à esquerda

$$\begin{array}{l} A \rightarrow \alpha A' \\ A' \rightarrow B \\ \quad | C \end{array}$$

② Eliminação da Recursividade à esquerda

$$\begin{array}{l} A \rightarrow A \alpha \\ \quad | B \end{array} \quad \begin{array}{l} A \rightarrow B A' \\ A' \rightarrow \alpha A' \\ \quad | \epsilon \end{array}$$

