

	NULL	FIRST	FOLLOW	GUIDA
START	X	{ ϵ , NUM}	{EOF}	{ ϵ , NUM}
EXPR	X	{ ϵ , NUM}	{EOF,)}	{ ϵ , NUM}
EXPRP	✓	{+, -}	{EOF,)}	{+, -}, {EOF,)}
TERM	X	{ ϵ , NUM}	{EOF,), +, -}	{ ϵ , NUM}
TERMP	✓	{*, /}	{EOF,), +, -}	{*, /}, {EOF,), +, -}
FACT	X	{ ϵ , NUM}	{EOF,), +, - , * , /}	{ ϵ , NUM}

CALLOW FIRST

$$\begin{aligned}
 \text{FIRST}(\text{START}) &= \text{FIRST}(\text{EXPR EOF}) \\
 &= \text{FIRST}(\text{EXPR}) = \text{FIRST}(\text{TERM EXPRP}) \\
 &= \text{FIRST}(\text{TERM}) = \text{FIRST}(\text{FACT TERMP}) \\
 &= \text{FIRST}(\text{FACT}) = \text{FIRST}(\epsilon \dots) \cup \text{FIRST}(\text{NUM}) \\
 &= \{\epsilon, \text{NUM}\}
 \end{aligned}$$

$$\begin{aligned}
 \text{FIRST}(\text{EXPRP}) &= \text{FIRST}(+ \dots) \cup \text{FIRST}(- \dots) \\
 &= \{+, -\}
 \end{aligned}$$

$$\begin{aligned}
 \text{FIRST}(\text{TERMP}) &= \text{FIRST}(\ast) \cup \text{FIRST}(/) \\
 &= \{\ast, /\}
 \end{aligned}$$

CALLOW FOLLOW

$$\begin{aligned}
 \textcircled{1} \text{ EOF} &\in \text{FOLLOW}(\text{START}) \\
 \{\text{EOF}\} &= \text{FIRST}(\text{EOF}) \subseteq \text{FOLLOW}(\text{EXPR}) \quad \checkmark
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{2} \{+, -\} &= \text{FIRST}(\text{EXPRP}) \subseteq \text{FOLLOW}(\text{TERM}) \quad \checkmark \\
 &\text{FOLLOW}(\text{EXPR}) \subseteq \text{FOLLOW}(\text{TERM}) \quad \checkmark \\
 &\text{FOLLOW}(\text{EXPR}) \subseteq \text{FOLLOW}(\text{EXPRP}) \quad \checkmark
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{3} \text{ FIRST}(\text{EXPRP}) &\subseteq \text{FOLLOW}(\text{TERM}) \quad \text{BAN} \\
 \text{FOLLOW}(\text{EXPRP}) &\subseteq \text{FOLLOW}(\text{TERM}) \quad \checkmark \\
 \text{FOLLOW}(\text{EXPRP}) &\subseteq \text{FOLLOW}(\text{EXPRP}) \quad \text{BAN}
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{4} \{\ast, /\} &= \text{FIRST}(\text{TERMP}) \subseteq \text{FOLLOW}(\text{FACT}) \quad \checkmark \\
 &\text{FOLLOW}(\text{TERM}) \subseteq \text{FOLLOW}(\text{FACT}) \quad \checkmark \\
 &\text{FOLLOW}(\text{TERM}) \subseteq \text{FOLLOW}(\text{TERMP}) \quad \checkmark
 \end{aligned}$$

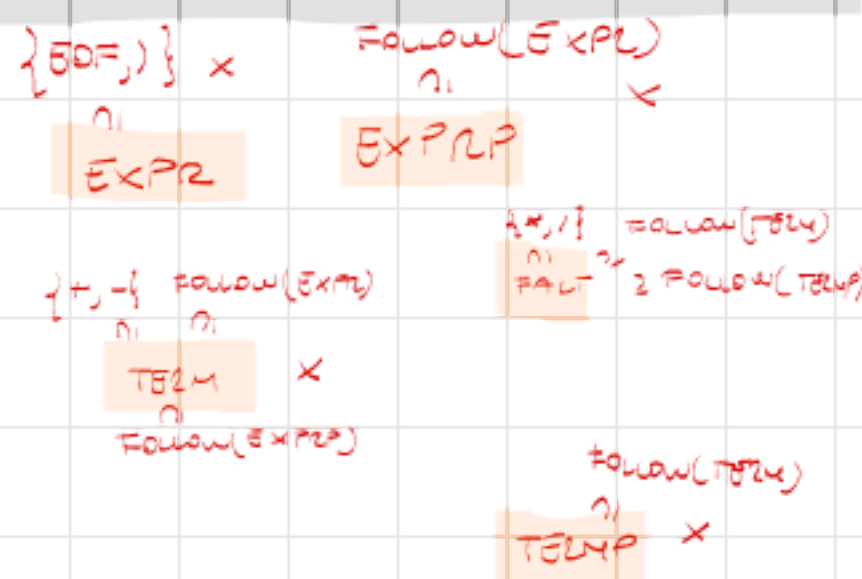
$$\begin{aligned}
 \textcircled{5} \{\ast, /\} &= \text{FIRST}(\text{TERMP}) \subseteq \text{FOLLOW}(\text{FACT}) \quad \checkmark \\
 &\text{FOLLOW}(\text{TERMP}) \subseteq \text{FOLLOW}(\text{FACT}) \quad \checkmark \\
 &\text{FOLLOW}(\text{TERMP}) \subseteq \text{FOLLOW}(\text{TERMP}) \quad \text{BAN}
 \end{aligned}$$

$$\textcircled{6} \{\epsilon\} = \text{FIRST}(\epsilon \dots) \subseteq \text{FOLLOW}(\text{EXPR}) \quad \checkmark$$

CALLOW NULL

* FOLLOWING GRAMMATIC

GRADO DI FOLLOW



CALLOW GUIDA

$$\begin{aligned}
 \text{GUIDA}(\text{START} \rightarrow \text{EXPR EOF}) &= \text{FIRST}(\text{EXPR EOF}) \\
 &= \text{FIRST}(\text{EXPR}) \\
 &= \{\epsilon, \text{NUM}\}
 \end{aligned}$$

$$\begin{aligned}
 \text{GUIDA}(\text{EXPR} \rightarrow \text{TERM EXPRP}) &= \text{FIRST}(\text{TERM} \dots) \\
 &= \{+, -\}
 \end{aligned}$$

$$\begin{aligned}
 \text{GUIDA}(\text{EXPRP} \rightarrow \dots) & \\
 \text{GUIDA}(\dots \rightarrow + \text{TERM EXPRP}) &= \text{FIRST}(+) = \{+\} \\
 \text{GUIDA}(\dots \rightarrow - \text{TERM EXPRP}) &= \text{FIRST}(-) = \{-\} \\
 \text{GUIDA}(\dots \rightarrow \epsilon) &= \text{FOLLOW}(\text{EXPRP}) \\
 &= \{\text{EOF},)\}
 \end{aligned}$$

$$\text{GUIDA}(\text{TERM} \rightarrow \text{FACT TERMP}) = \text{FIRST}(\text{FACT}) = \{\epsilon, \text{NUM}\}$$

$$\begin{aligned}
 \text{GUIDA}(\text{TERMP} \rightarrow \dots) & \\
 \text{GUIDA}(\dots \rightarrow \ast \text{FACT TERMP}) &= \text{FIRST}(\ast) = \{\ast\} \\
 \text{GUIDA}(\dots \rightarrow / \text{FACT TERMP}) &= \text{FIRST}(/) = \{/ \} \\
 \text{GUIDA}(\dots \rightarrow \epsilon) &= \text{FOLLOW}(\text{TERMP}) = \{\text{EOF},), +, -\}
 \end{aligned}$$

$$\begin{aligned}
 \text{GUIDA}(\text{FACT} \rightarrow \dots) & \\
 \text{GUIDA}(\dots \rightarrow (\text{EXPR}) &= \text{FIRST}(\epsilon) = \{\epsilon\} \\
 \text{GUIDA}(\dots \rightarrow \text{NUM}) &= \text{FIRST}(\text{NUM}) = \{\text{NUM}\}
 \end{aligned}$$