

Follow

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- $\$ \neq \epsilon$; $\$$ indicates blank symbol in the input tape
- Follow set never contains ϵ but may contain $\$$
- Follow (Start) will always contain $\$$.

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- Look at RHS of the productions only.

(i) Follow (X) = ~~Follow~~^{First} (symbol which follows "X" in some production) - $\{\epsilon\}$

(ii) If " ϵ " follows "X", then Follow(X) = Follow(LHS)

(a) $S \rightarrow ABC$ # Follow(S) = $\{\$ \}$

$A \rightarrow DEF$ # Follow(A) = (First(B) - $\{\epsilon\}$) \cup

$B \rightarrow \epsilon$ (First(C) - $\{\epsilon\}$) \cup Follow(S)
 $C \rightarrow \epsilon$ = $\{\$ \}$

$D \rightarrow \epsilon$ # Follow(D) = (First(C) - $\{\epsilon\}$) \cup
 $E \rightarrow \epsilon$ Follow(S)
 $F \rightarrow \epsilon$ = $\{\$ \}$

Follow set of all other will be $\{\$ \}$. Ans

(b) $S \rightarrow AaAb \mid BbBa$

Follow(S) = $\{\$ \}$

$A \rightarrow \epsilon$

Follow(A) = $\{a, b\}$

$B \rightarrow \epsilon$

Follow(B) = $\{a, b\}$ Ans

[if " ϵ " in First set, then move to next symbol's first set]