

Original Grammar :

$E \rightarrow b$
 $S \rightarrow iEtS \mid iEtSeS \mid a$

Left Factored Grammar :

$E \rightarrow b$
 $S \rightarrow a \mid iEtSS'$
 $S' \rightarrow eS \mid \epsilon$

Original Grammar :

$S \rightarrow Sa \mid Sb \mid c \mid d$

After Removing Left Recursion :

$S \rightarrow cS' \mid dS'$
 $S' \rightarrow aS' \mid bS' \mid \epsilon$

Original Grammar :

$A \rightarrow aAB \mid aBc \mid aAc$

Left Factored Grammar :

$A'' \rightarrow B \mid c$
 $A' \rightarrow Bc \mid AA''$
 $A \rightarrow aA'$

Original Grammar :

$B \rightarrow Cd$
 $C \rightarrow At$
 $A \rightarrow Br$

After removing Left Recursion :

$A' \rightarrow tdrA' \mid \epsilon$
 $B \rightarrow Cd$
 $C \rightarrow At$