

Remove unit production.

Eliminate unit productions.

$$\begin{aligned} \textcircled{1} \quad E &\rightarrow E + T \mid T \\ \textcircled{1} \quad T &\rightarrow T * F \mid F \\ F &\rightarrow (E) \mid I \\ I &\rightarrow a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \end{aligned}$$

step I - Write the grammar without unit productions.

$$\begin{aligned} E &\rightarrow E + T \\ T &\rightarrow T * F \\ F &\rightarrow (E) \\ I &\rightarrow a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \end{aligned}$$

step II

for every unit production add new rules.

$$\begin{aligned} E \rightarrow T: \quad E &\rightarrow E \rightarrow T * F \\ &E \rightarrow (E) \\ &E \rightarrow a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \end{aligned}$$

$$\begin{aligned} T \rightarrow F: \quad T &\rightarrow (E) \mid \cdot \\ &T \rightarrow a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \end{aligned}$$

$$\begin{aligned} F \rightarrow I \quad F &\rightarrow a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \end{aligned}$$

step III  
rewrite

$$\begin{aligned} E &\rightarrow E + T \mid T * F \mid (E) \mid a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \\ T &\rightarrow T * F \mid (E) \mid a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \\ F &\rightarrow a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \mid (E) \\ I &= a \mid b \mid Ia \mid Ib \mid Io \mid I_1 \end{aligned}$$