

3. $S \rightarrow aSbSc \mid aSc \mid \epsilon$ (generalized)

$T \rightarrow bT \mid S \mid \epsilon$

Passo 1

$S \rightarrow S$

$S \rightarrow aSbSc \mid aSc \mid \epsilon$

$T \rightarrow bT \mid S$

Passo 2

~~$S \rightarrow S$~~

$S \rightarrow S \mid \epsilon$

$S \rightarrow aSbSc \mid abc \mid aSbc \mid abSc \mid aSc$

$T \rightarrow bT \mid S \mid \epsilon$

~~$T \rightarrow bT$~~

$T \rightarrow S \mid \epsilon$

$S \rightarrow aSbSc \mid abc \mid aSbc \mid abSc \mid aSc \mid ac$

$T \rightarrow bT \mid b \mid S$

Passo 3

~~$S \rightarrow S$~~

$S \rightarrow aSbSc \mid abc \mid aSbc \mid abSc \mid aSc \mid ac \mid \epsilon$

$S \rightarrow aSbSc \mid abc \mid aSbc \mid abSc \mid aSc \mid ac$

$T \rightarrow bT \mid b \mid S$

~~$T \rightarrow S$~~

$S \rightarrow aSbc \mid abc \mid aSbc \mid abSc \mid aSc \mid ac \mid \epsilon$

$S \rightarrow aSbSc \mid abc \mid aSbc \mid abSc \mid aSc \mid ac$

$T \rightarrow bT \mid b \mid aSbSc \mid abc \mid aSbc \mid abSc \mid aSc \mid ac$

Passo 4

$S \rightarrow U_1 S U_2 S U_3 \mid U_1 U_2 U_3 \mid U_1 U_2 S U_3 \mid U_1 U_2 U_3 U_1 U_3 \mid \epsilon$

$S \rightarrow U_1 S U_2 U_3 \mid U_1 U_2 U_3 \mid U_1 S U_2 S U_3 \mid U_1 U_2 S U_3 \mid U_1 U_3$

$T \rightarrow U_2 T \mid b \mid U_1 S U_2 S U_3 \mid U_1 U_2 U_3 \mid U_1 S U_2 S U_3 \mid U_1 U_2 S U_3 \mid U_1 U_3$

$U_1 \rightarrow a$

$U_2 \rightarrow b$

$U_3 \rightarrow c$