

Eliminar E

Eliminar unarios

Eliminar símbolos useless

1)

$S \rightarrow OAO \mid BB \mid BB$

$A \rightarrow C$

$B \rightarrow S \mid A$

$C \rightarrow S \mid E$

1)

~~$S \rightarrow OAO \mid BB \mid BB$~~

$S \rightarrow OAO \mid BB \mid BB$

$B \rightarrow S \mid A$

$C \rightarrow S$

$A \rightarrow C$

2) $(S \mid S) \quad (B \mid B) \quad (C \mid C) \quad (S \mid S)$

\times
 $(B, B) \wedge B \rightarrow S$

(B, S)
 $(B, B) \wedge B \rightarrow A$

(B, A)
 $B, A \rightarrow C$

(B, C)
 $(B, C) \rightarrow S$
 (B, S)

$(A, A) \rightarrow C$
 $(A, C) \rightarrow S$
 (A, S)

$(C, C) \rightarrow C \rightarrow S$
 (C, S)

$B, B \rightarrow x$
 $B, S \rightarrow 0A011B1BB$
 $B, A \rightarrow$
 $B, C \rightarrow$
 $B, S \rightarrow$

$A, A \rightarrow$
 $A, C \rightarrow$
 $A, S \rightarrow 0A011B1BB$

$C, C \rightarrow$
 $C, S \rightarrow 0A011B1BB$

$S \rightarrow 0A011B1BB10011$
 $A \rightarrow 0A011B1BB10011$
 $B \rightarrow 0A011B1BB10011$
 $C \rightarrow 0A011B1BB10011$

Timbelen jeler

$S \rightarrow 0A011B1BB10011$
 $A \rightarrow 0A011B1BB10011$
 $B \rightarrow 0A011B1BB10011$

UWUAAU

$S \rightarrow BB$
 $S \rightarrow 00$
 $S \rightarrow 11$
 $A \rightarrow BB$
 $A \rightarrow 00$

$A \rightarrow 11$
 $B \rightarrow BB$
 $B \rightarrow 00$
 $B \rightarrow 11$

$S \rightarrow 0A0$
 $S \rightarrow 1B1$
 $A \rightarrow 0A0$

$A \rightarrow 1B1$
 $B \rightarrow 0A0$
 $B \rightarrow 1B1$

$X_0 \rightarrow 0$
 $X_1 \rightarrow 1$

MAX

$A' \rightarrow AX_0$
 $B' \rightarrow BX_1$

$S \rightarrow 0A'11B'1BB10011$
 $A \rightarrow 0A'11B'1BB10011$
 $B \rightarrow 0A'11B'1BB10011$

2) $S \rightarrow aAa | bBb | \epsilon$
 $A \rightarrow c | a$
 $B \rightarrow c | b$
 $C \rightarrow cDE | \epsilon$
 $D \rightarrow A | B | ab$

a)

$S \rightarrow aa | bb | aAa | bBb$
 $A \rightarrow c | a$
 $B \rightarrow c | b$
 $C \rightarrow cDE | DE | CE | \epsilon$
 $D \rightarrow A | B | ab$

b)

$(SS) \times$
 $(A, A) \quad A \rightarrow a | cDE | DE | CE | \epsilon$
 (A, C)
 $(B, B) \quad B \rightarrow b | cDE | DE | CE | \epsilon$
 (B, C)
 (C, C)
 $(D, A) \quad (C, \epsilon) \quad C \times$
 $(D, D) \quad D \rightarrow A | B | ab | a | b$
 (D, B)

c)

$S \rightarrow aa | bb | aAa | bBb$
 $A \rightarrow a$
 $B \rightarrow b$

$X_0 \rightarrow a$
 $X_1 \rightarrow b$

$S \rightarrow X_0 X_0 | X_1 X_1 | X_0 A X_0 | X_1 B X_1$

$A' \rightarrow A X_0$
 $B' \rightarrow B X_1$

$S \rightarrow X_0 X_0 \mid X_1 X_1 \mid X_0 A' \mid X_1 B'$

$A \rightarrow a$

$B \rightarrow b$

$A' \rightarrow A X_0$

$B' \rightarrow B X_1$

$X_0 \rightarrow a$

$X_1 \rightarrow b$