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iiiiaeaeiaea

- $i(i(iaea)e(iaea))$
- $i(i(iaea)e(ia))e(a)$

6

1. $* + + acb * a + bc$
- 2.

$$P = S \rightarrow *SSS \rightarrow +SSS \rightarrow aS \rightarrow b$$

3. 曖昧な文法でない.

7

$$L(M) = ba^*(ba^*ba^*)^*$$

8

$A \rightarrow Bc$ に於いて, $B \rightarrow_G^* \beta$ になる $\beta \in (N \cup \Sigma)^*$ の集合 $\beta_1, \beta_2, \dots, \beta_i$ に対し, $A \rightarrow \beta_i$ なる規則を追加すれば良い.

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(a)

$$P = \{S \rightarrow \epsilon, S \rightarrow aSa, S \rightarrow bSb, S \rightarrow bab, S \rightarrow aba\}$$

(b)

$$P = \{A \rightarrow a, B \rightarrow a, S \rightarrow CA, S \rightarrow DB, S \rightarrow EB, S \rightarrow FA, S \rightarrow AS, S \rightarrow BS, S \rightarrow BA, S \rightarrow AB, S \rightarrow \epsilon\}$$

(c)

a	a	b	a	b	a	a
A	A	B	A	B	A	A
ϕ	F	E	F	E	ϕ	
ϕ	S	S	S	ϕ		
C	C	D	ϕ			
ϕ	S	ϕ				
C	ϕ					
S						

a	a	b	a	b	b	a
A	A	B	A	B	B	A
ϕ	F	E	F	ϕ	E	
ϕ	S	S	ϕ	ϕ		
C	C	ϕ	ϕ			
ϕ	ϕ	ϕ				
ϕ	ϕ					
ϕ						

(d)

$$P = \{A \rightarrow a, B \rightarrow b, S \rightarrow aSA, S \rightarrow bSB, S \rightarrow bAB, S \rightarrow aBA, C \rightarrow aS, D \rightarrow bS, E \rightarrow bA, F \rightarrow aB, S \rightarrow \epsilon\}$$

10

$$P = \{S \rightarrow SS, S \rightarrow AC, S \rightarrow BD, C \rightarrow SA, D \rightarrow SB, A \rightarrow a, B \rightarrow b\}$$