

作业 2

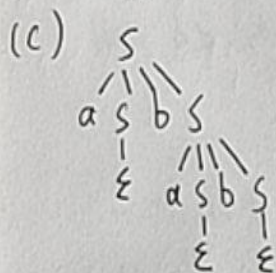
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3.2

$$(a) S \Rightarrow_{lm} aSbS \Rightarrow_{lm} abS \Rightarrow_{lm} abasbS \Rightarrow_{lm} ababS \Rightarrow_{lm} abab$$

$$S \Rightarrow_{lm} aSbS \Rightarrow_{lm} abSaSbS \Rightarrow_{lm} abasbS \Rightarrow_{lm} ababS \Rightarrow_{lm} abab$$

$$(b) S \Rightarrow_{rm} aSbS \Rightarrow_{rm} aSbaSbS \Rightarrow_{rm} aSbaSb \Rightarrow_{rm} aSbab \Rightarrow_{rm} abab$$



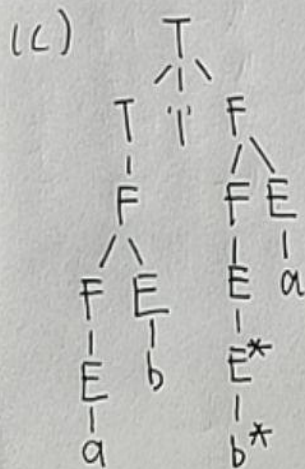
(d) ~~证明~~ a, b 出现次数相同的串集

3.4

$$(b) T \rightarrow T ' ' F | F$$

$$F \rightarrow FE | E$$

$$E \rightarrow E^* | (T) | a | b$$



3.6

$$(a) \quad S \rightarrow abS \mid bS \mid \varepsilon$$

正规, 可用正规式 $(ab \mid b)^*$ 表示.

$$(b) \quad S \rightarrow aB \mid bA \mid \varepsilon$$

$$A \rightarrow aS \mid bAA$$

$$B \rightarrow bS \mid aBB$$

3.8

$$(a) \quad S \rightarrow (L) \mid a$$

$$L \rightarrow SL'$$

$$L' \rightarrow , SL' \mid \varepsilon$$