

1. $L = \{w \in \{a,b\}^* \mid w \text{ is a palindrome}\}$

CFG $G = (V, \Sigma, R, S)$

$V = \{S, a, b\}$

$\Sigma = \{a,b\}$

$R = \{$

$S \rightarrow aSa$

$S \rightarrow bSb$

$S \rightarrow a$

$S \rightarrow b$

$S \rightarrow \epsilon$

$\}$