$$R_y(\theta) = \begin{bmatrix} cos\theta & 0 & sin\theta \\ 0 & 1 & 0 \\ -sin\theta & 0 & cos\theta \end{bmatrix}$$

$$D_N^2 = \begin{cases} D_{N-1}^2 + 2D_{N-1} + 1 = 10 \\ or \\ D_{N-1}^2 - 2D_{N-1} + 1 = 20 \end{cases} \tag{6.7}$$

$$\begin{Bmatrix} 0.8944272 & 0.4472136 \\ -0.4472136 & -0.8944272 \end{Bmatrix} \begin{pmatrix} 10 & 0\,0 & 5 \end{pmatrix}$$

$$E_{CFG} = \{\langle G \rangle | G \text{ is a CFG and } L(G) = \emptyset\}$$