$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos \theta & -\sin \theta \\ 0 & \sin \theta & \cos \theta \end{bmatrix}$$

$$v'_{i} = \sum_{j=1}^{n} A_{ij} \cdot v_{j}$$

$$\sigma = \sqrt{\frac{1}{n-1} \sum_{i=1}^{n} (x_{i} - \mu)^{2}}$$