

$$\begin{pmatrix} 0.5P_{Angry} + 0.5P_{Happy} \\ 0.5P_{Angry} + 0.5P_{Happy} \end{pmatrix} = \begin{pmatrix} 0.5 & 0.5 \\ 0.5 & 0.5 \end{pmatrix} \begin{pmatrix} P_{Angry} \\ P_{Happy} \end{pmatrix}$$