



$$\vec{x} = [\vec{x}_1, \vec{x}_2, \vec{x}_3] \quad W = \begin{pmatrix} W_{1,1} & W_{1,2} \\ W_{2,1} & W_{2,2} \\ W_{3,1} & W_{3,2} \end{pmatrix}$$
$$\vec{h} = \vec{x}W$$
$$\vec{x}W = [\vec{x}_1 * W_{11} + \vec{x}_2 * W_{21} + \vec{x}_3 * W_{31}, \vec{x}_1 * W_{12} + \vec{x}_2 * W_{22} + \vec{x}_3 * W_{32}]$$
$$\vec{h} = [\vec{h}_1, \vec{h}_2]$$