$$p_{v=1} = \phi\left(\begin{pmatrix} w_{11} & \cdots & w_{1N_h} \\ \vdots & \ddots & \vdots \\ w_{N_v1} & \cdots & w_{N_vN_h} \end{pmatrix} \begin{pmatrix} h_1 \\ \vdots \\ h_{N_h} \end{pmatrix}\right)$$