



$$\text{hidden layer 1} \begin{pmatrix} 4.2 \\ -5 \end{pmatrix} = A \left( \begin{pmatrix} w_{01} \\ w_{02} \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} + (1.2) \right) \quad \text{Act} = \tanh(1)$$

$$\text{hidden layer 2} \begin{pmatrix} 20 \\ -40 \end{pmatrix} = A \left( \begin{pmatrix} w_{11} & w_{12} \\ w_{21} & w_{22} \end{pmatrix} \begin{pmatrix} 4.2 \\ -5 \end{pmatrix} + (-30) \right)$$

$$\text{hidden layer 3} \begin{pmatrix} -8 \\ 1.5 \end{pmatrix} = A \left( \begin{pmatrix} w_{31} \\ w_{32} \end{pmatrix} \begin{pmatrix} 20 \\ -40 \end{pmatrix} + (5) \right)$$

$$y = (0.31)$$