

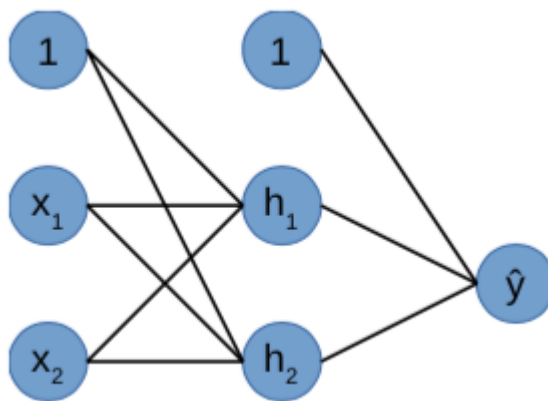


## 5 Neural network

(5%) Suppose you are given the following neural network (flowing left to right) and parameters, which uses ReLU activation in every layer and the loss is the squared error  $L = (y - \hat{y})^2$ .

Weights for the first layer (start from bias)  $W_1 = \begin{bmatrix} 1 & 1 & 2 \\ 1 & 2 & 4 \end{bmatrix}$

Weights for second layer (start from bias)  $W_2 = \begin{bmatrix} 1 & 1 & 2 \end{bmatrix}$



What is the loss value (squared loss) for the input  $x = (2 \ 4)$  and  $y = 26$

Nullstill

Maks poeng: 6

