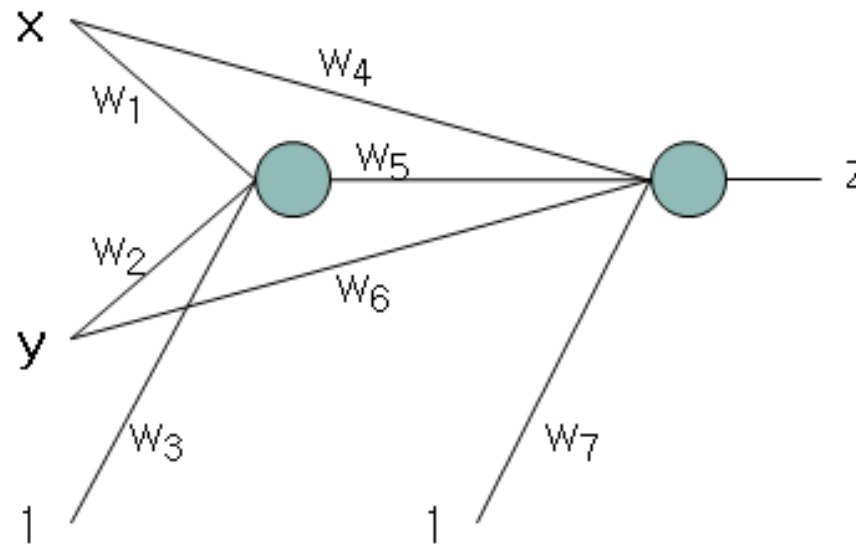


Assignment

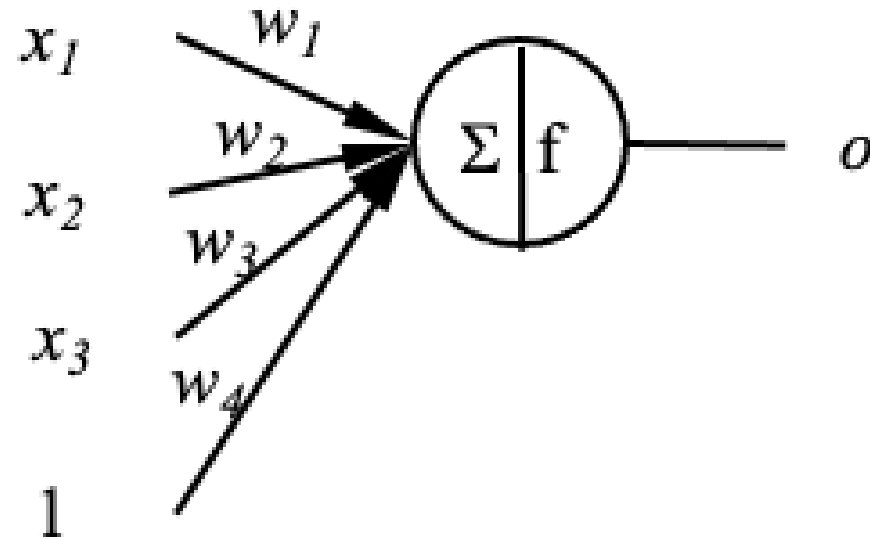
Neural Network

- What are the outputs if $x = 1$ and $y = 1$, and $x = 1$ and $y = 0$, respectively? The hard limit function is used in each neuron.
 $w_1 = w_2 = w_4 = w_6 = 1$, $w_3 = -1.5$, $w_5 = -2$, $w_7 = -0.5$
 Calculate the outputs of the given data samples.



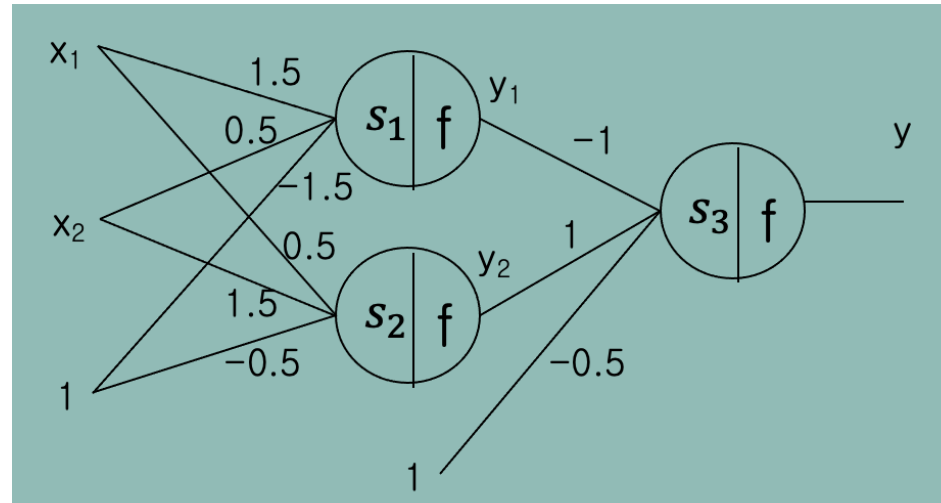
Neural Network

2. Set w_1, w_2, w_3, w_4 so that the output is 1 only if more than half of inputs are 1s, where f is the hard limit function. Bias '1' is not an input.



Neural Network

3. Calculate the outputs of the given data samples



x_1	x_2
0	0
0	1
1	0
1	1

- ① All activation functions are Hard Limit function.
- ② All activation functions are Sigmoid function
- ③ All activation functions are ReLU

Thank You