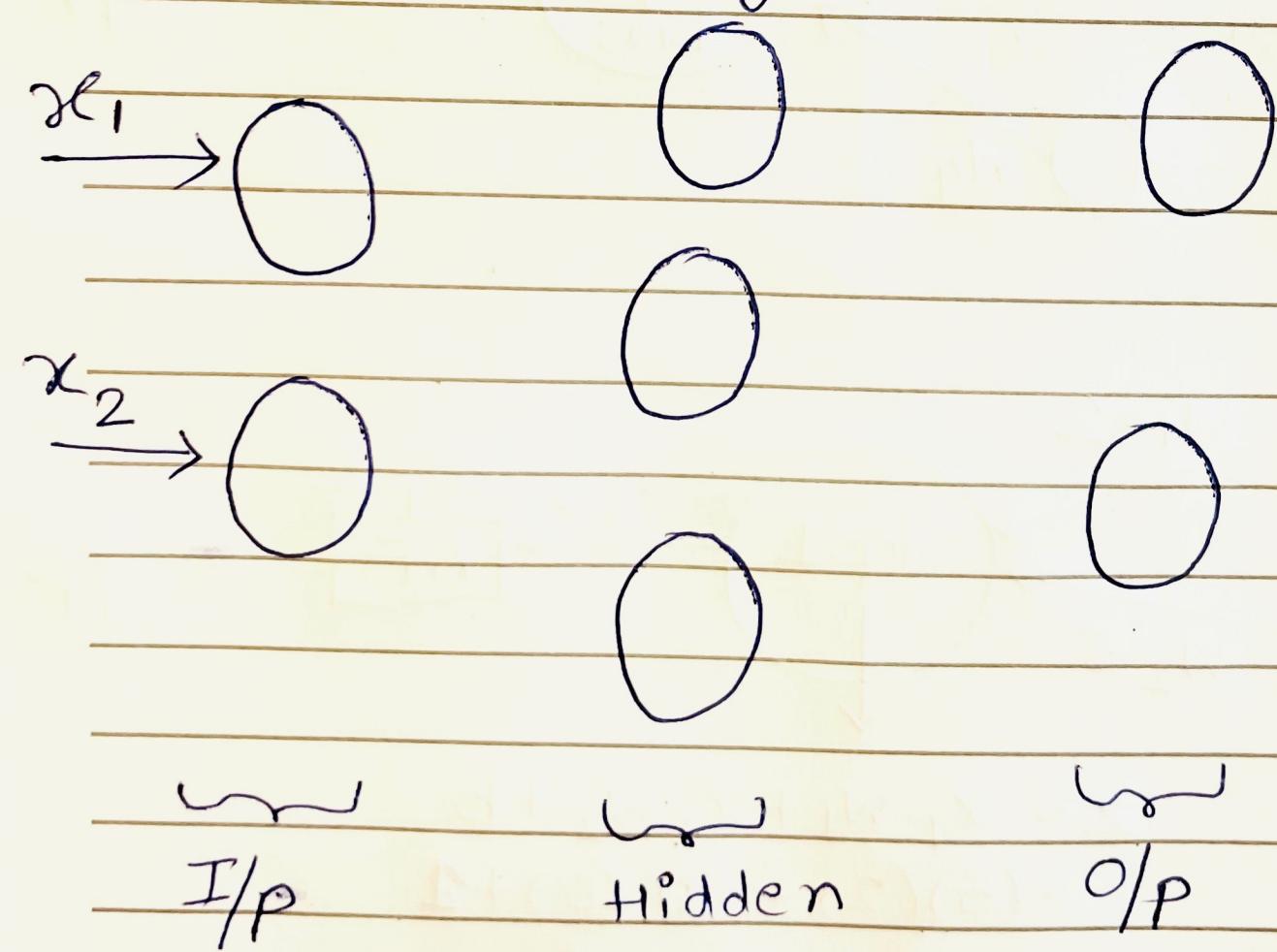


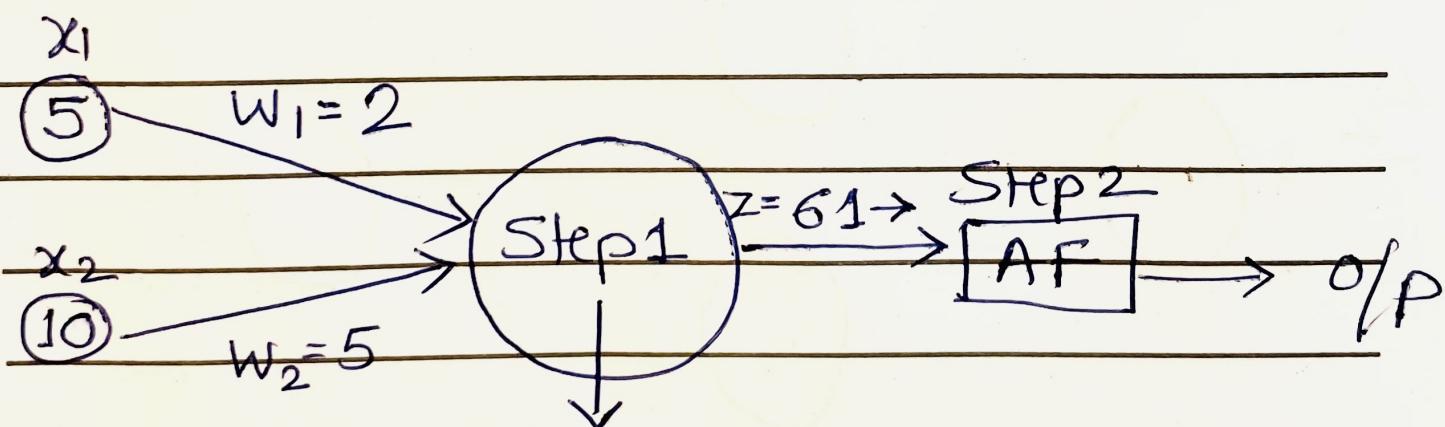
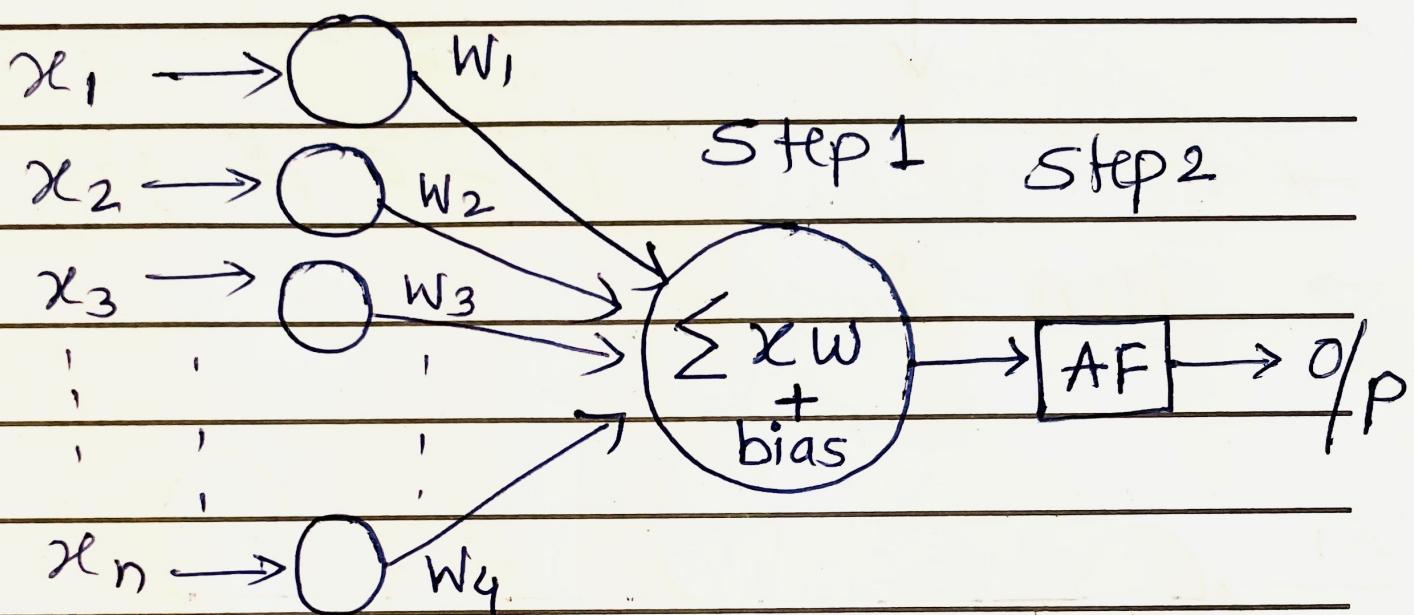
"Activation function"



- Activated OR Not Activated
- Non-linearity

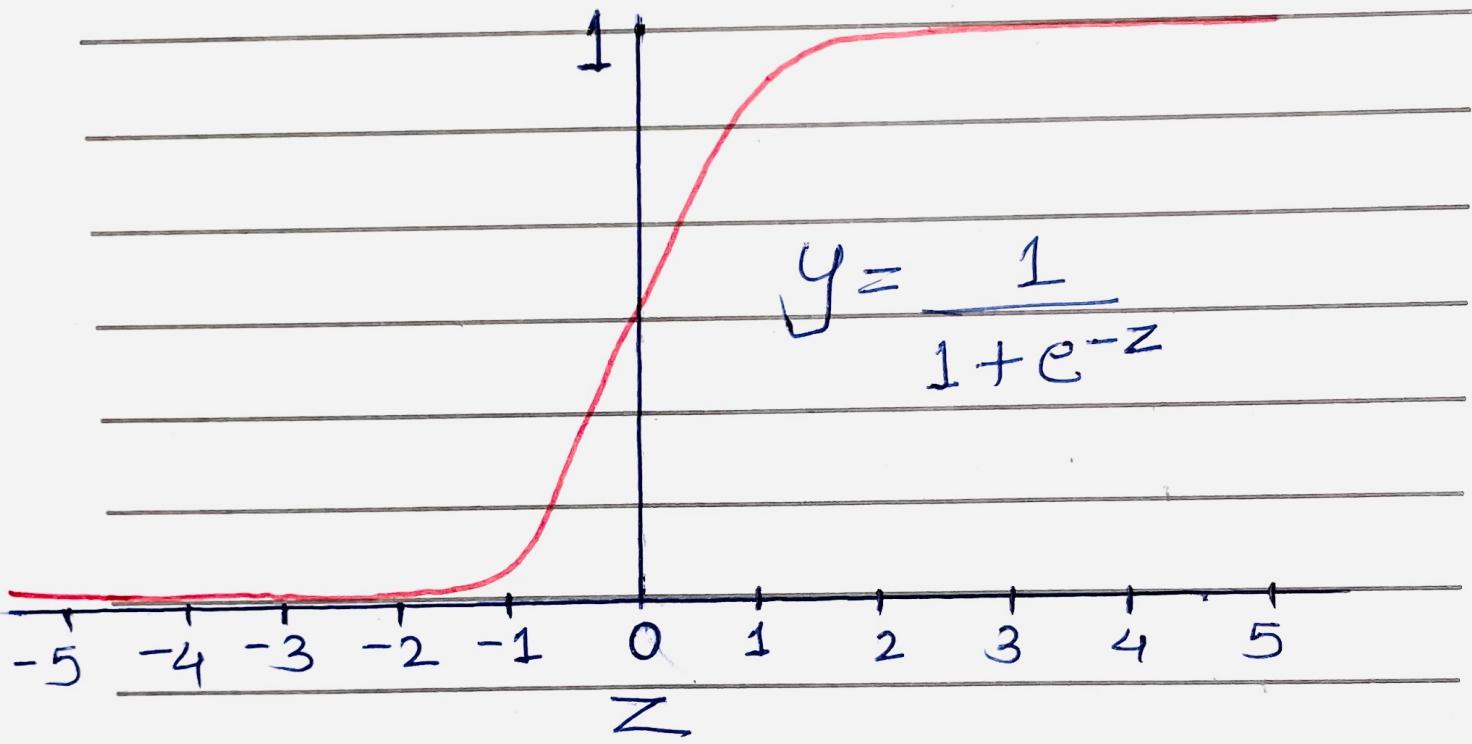


Input

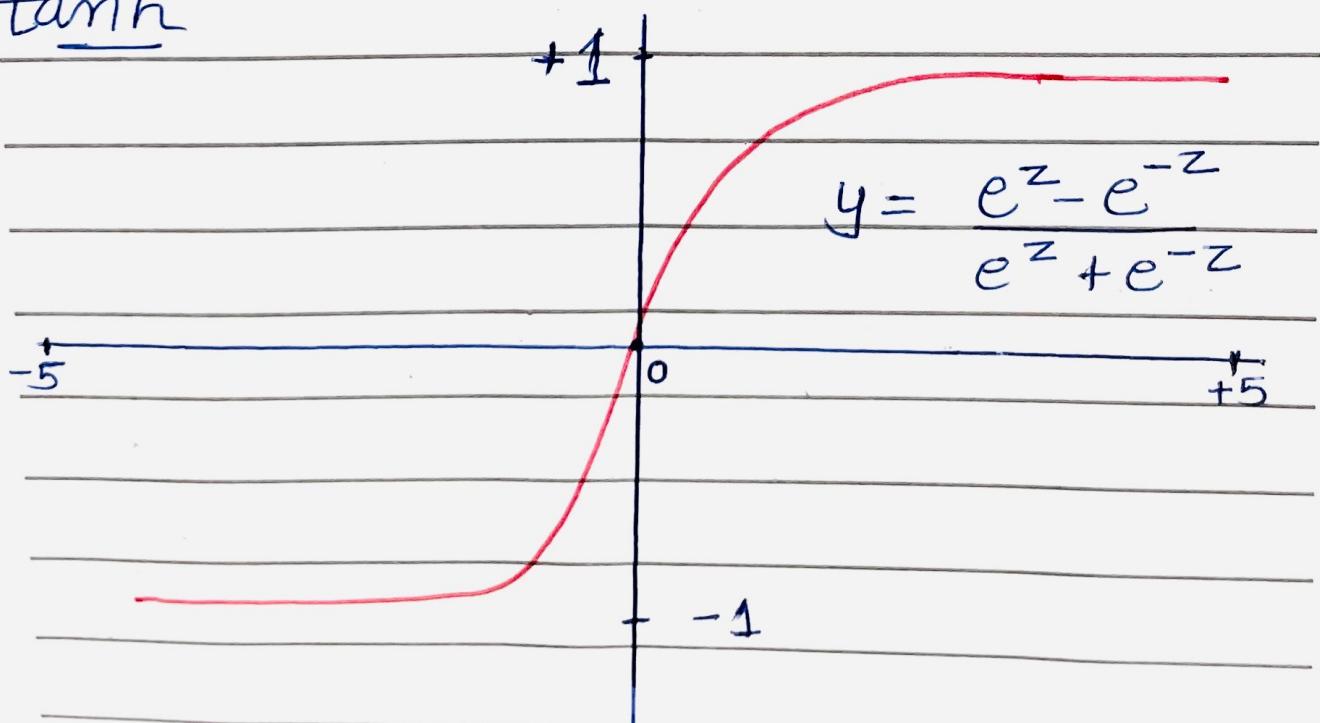


$$\begin{aligned} z &= x_1 \cdot w_1 + x_2 \cdot w_2 + b \\ &= (5)(2) + (10)(5) + 1 \\ &= 10 + 50 + 1 \\ &= 61 \end{aligned}$$

→ Sigmoid



→ tanh



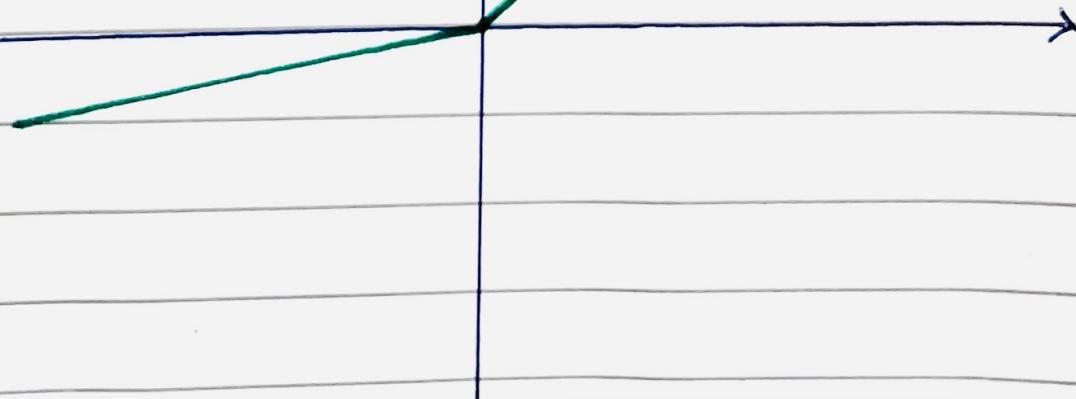
→ ReLU

$$\max(0, z)$$



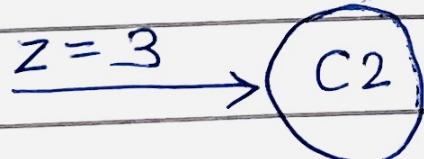
→ Leaky ReLU

$$\max(z, \alpha z)$$



→ Softmax

$$f(z) = \frac{e^{z_i}}{\sum_{j=1}^K e^{z_j}}$$



O/P

$$C1 \rightarrow \frac{e^2}{e^2 + e^3} = \frac{7.38}{7.38 + 20.08} = 0.26$$

$$C2 \rightarrow \frac{e^3}{e^2 + e^3} = \frac{20.08}{7.38 + 20.08} = 0.74$$