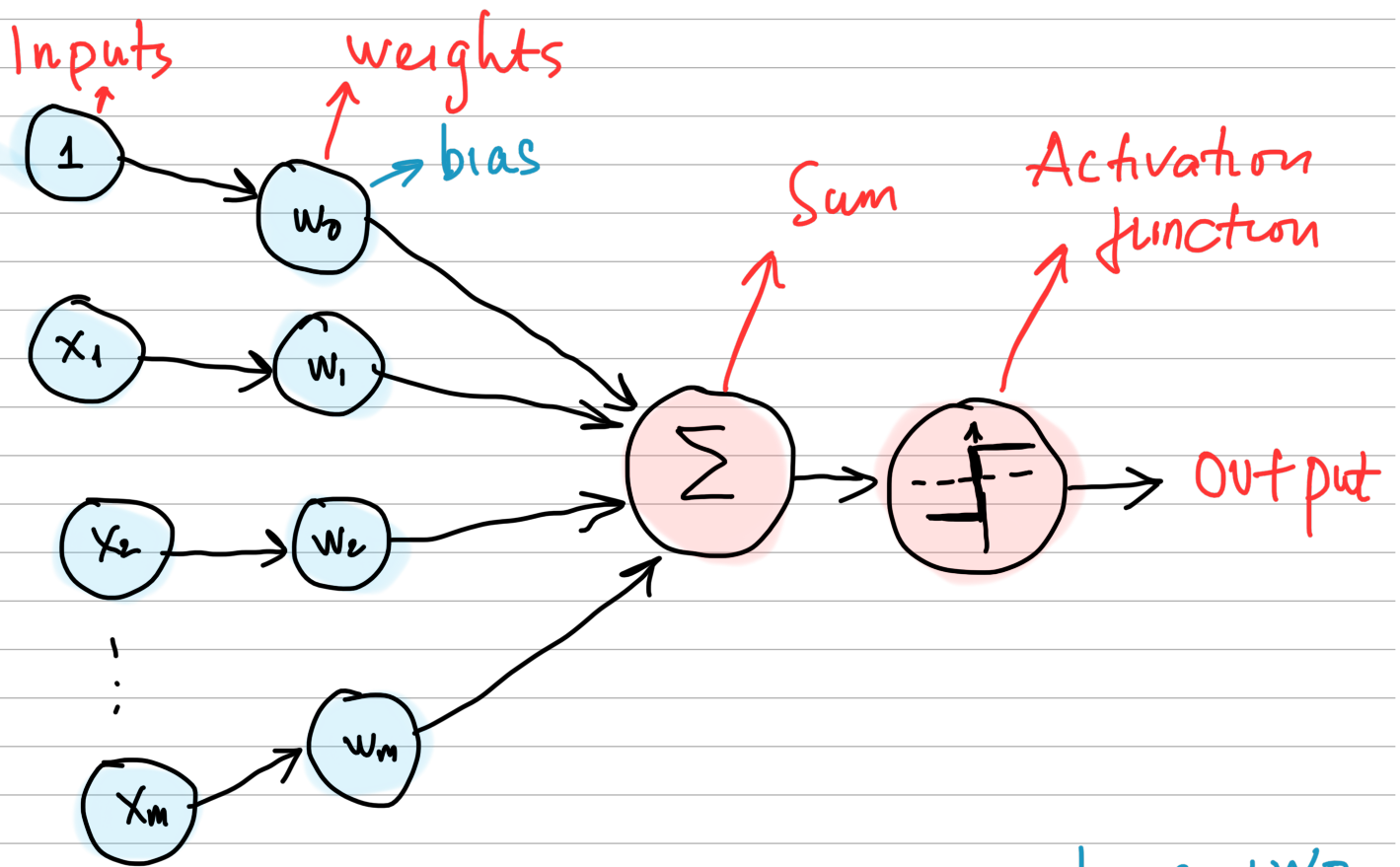


PERCEPTRON ALGORITHM

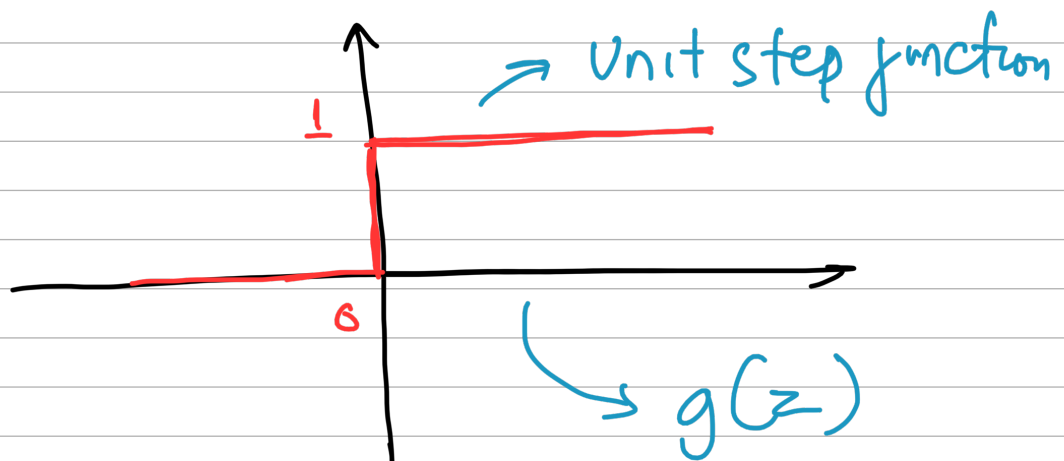


Linear model

$$f(w, b) = w^T x + b$$

bias $\sim w_0$
 $\sim w_0 \cdot w_0$

Activation Function



Approximation :

$$\hat{y} = g(f(w, b))$$

unit step func.

Linear model

Update Rule :

$$\begin{aligned} \textcircled{1} \quad w &= w + \Delta w \\ \textcircled{2} \quad \Delta w &= \alpha (y_i - \hat{y}) \cdot x_i \end{aligned}$$

actual label

predicted Label

learning rate
(scale factor)