C2-W10-ClassWork-PeerReview

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- The sigmoid function (or logistic)

$$\phi(x) = \frac{1}{1+exp(-x)}$$

- The hyperbolic tangent function("tanh")

$$\phi(x) = \frac{exp(x)-exp(-x)}{exp(x)+exp(-x)} = \frac{exp(2x)-1}{exp(2x)+1}$$

- The hard threshold function

$$\phi_\beta(x) = 1_{x \geq \beta}$$

- The Rectified Linear Unit(ReLU) activation function

$$\phi(x) = max(0, x).$$

Here is a shematic represantion of an artifical neuron where $\sum = \langle w_j, x \rangle + b_j$.