

$$\mathbf{a}(\vec{x}) = \vec{w}^T \vec{x} = \begin{pmatrix} \mathbf{w}_0 & w_1 & w_2 \end{pmatrix} \begin{pmatrix} \mathbf{1} \\ x_A \\ x_B \end{pmatrix} \Leftrightarrow$$

$$\mathbf{a}(\vec{x}) = \vec{w}^T \vec{x} + \mathbf{b} = \begin{pmatrix} w_1 & w_2 \end{pmatrix} \begin{pmatrix} x_A \\ x_B \end{pmatrix} + \mathbf{b} \quad \mathbf{Error} \; E(\vec{w})$$

Sample Input 
$$\sum_{i} (\vec{w}^1)^T \vec{x}^{(i)}$$
 weighted sum activation fct

Predicted Sample Output Label

**Score** 

## Forward = Computation