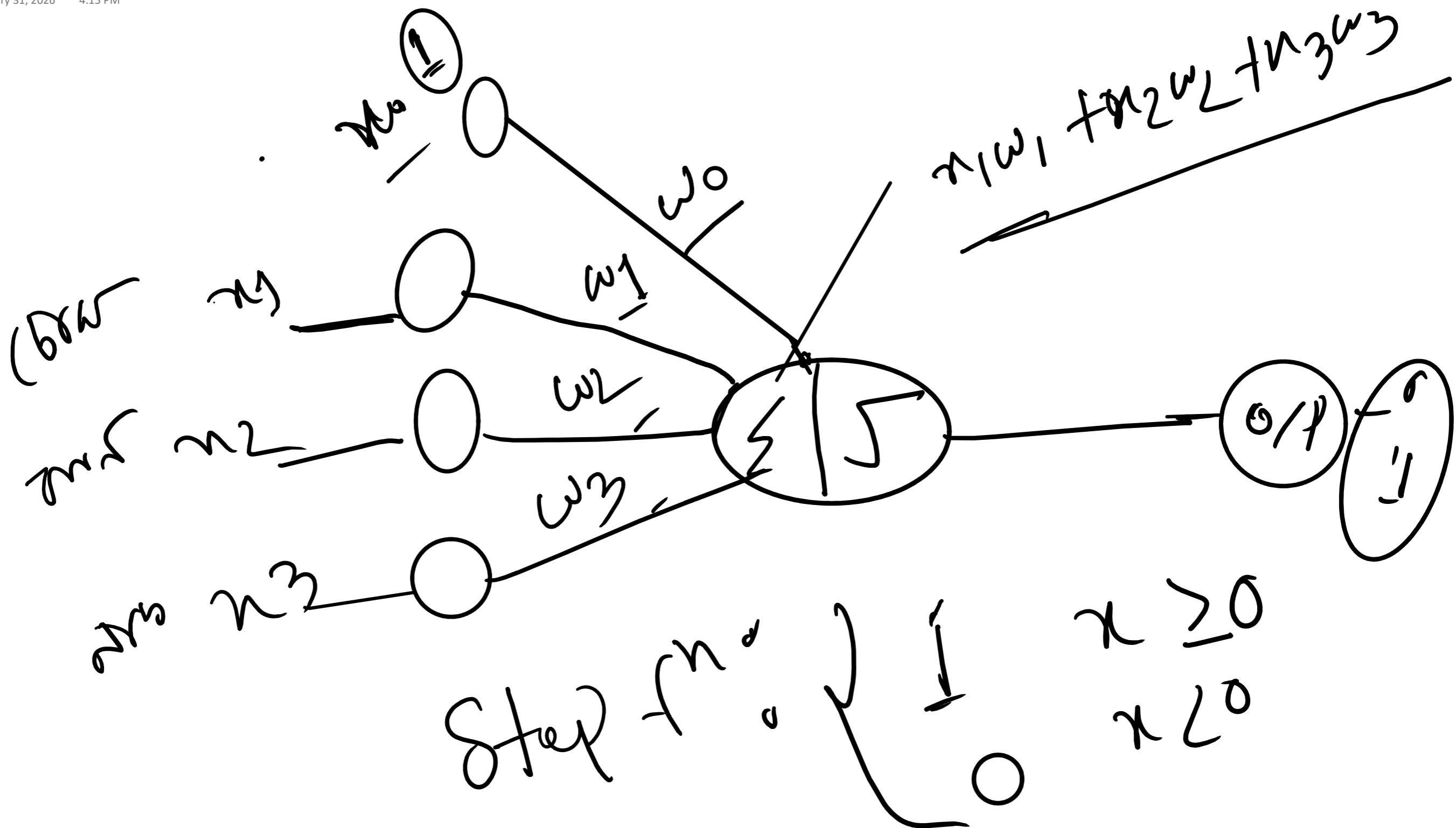


Perceptron

Saturday, January 31, 2026 4:15 PM

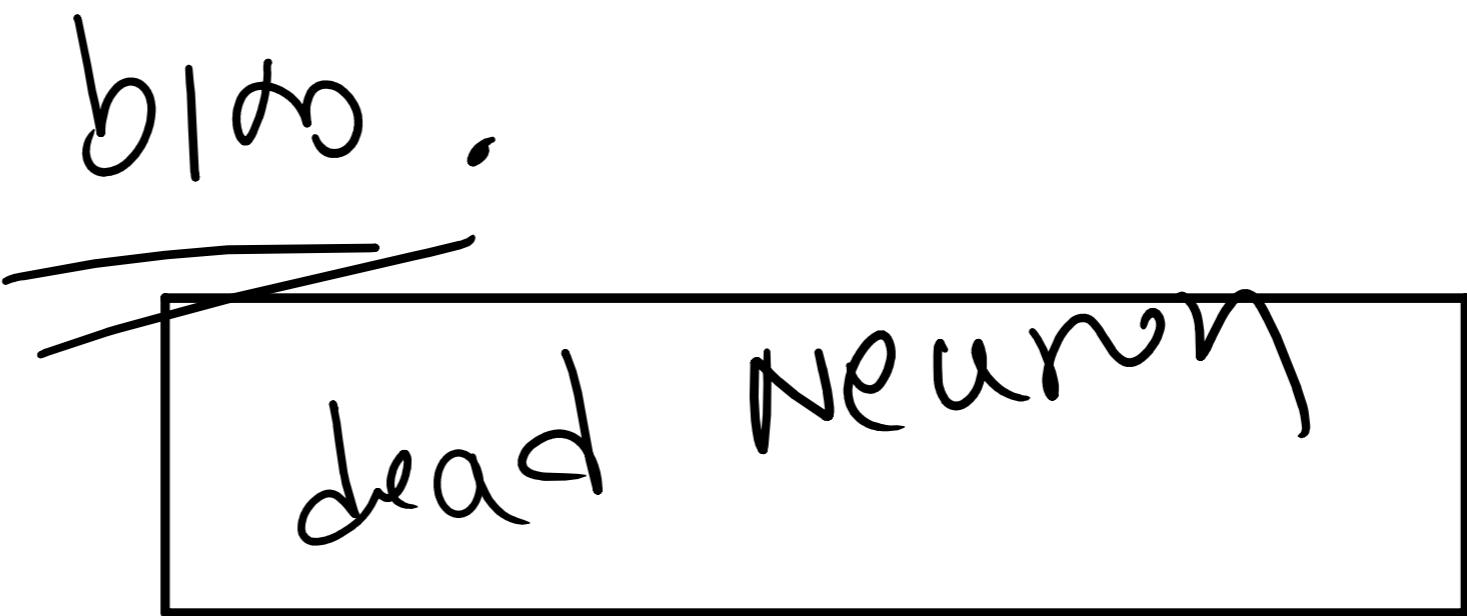


Q: $x_1 w_1 + x_2 w_2 + x_3 w_3$

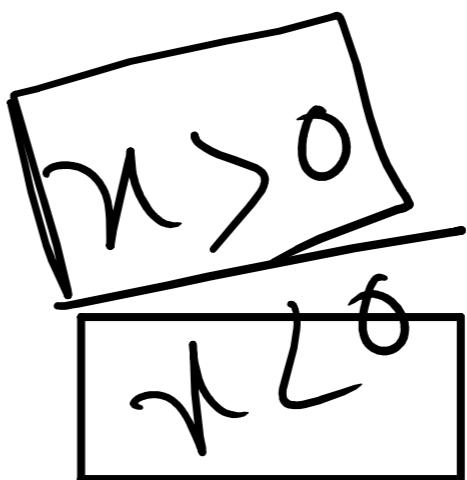
why multiply:

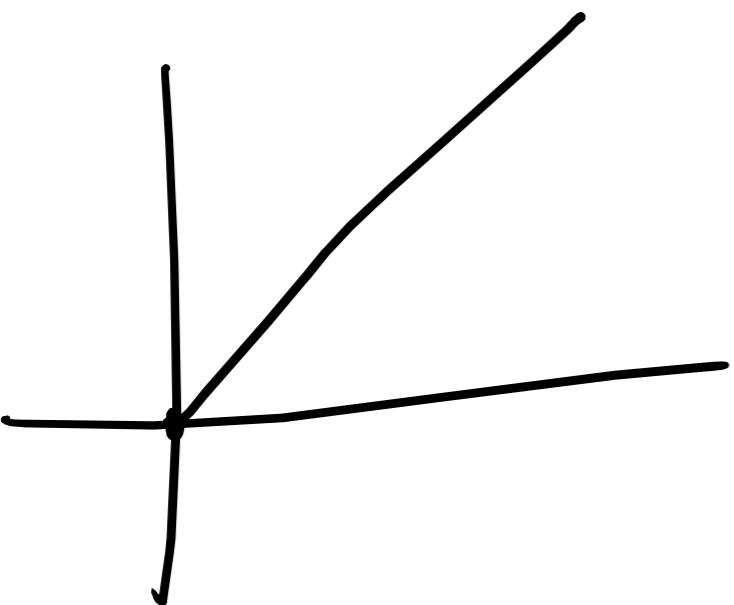
$$2 + \cancel{10} =$$

2to

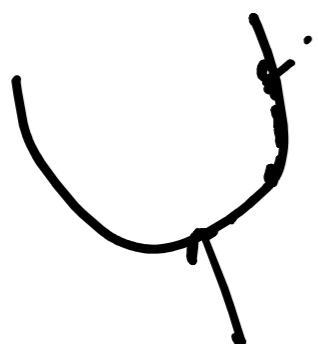


$$\rightarrow \text{decision} = \omega_1^{n_1} + \omega_2^{n_2} = 0$$





$$w_1x_1 + w_2x_2 + \cancel{b} \stackrel{(2)}{=} > 0$$



Weight updating formula

$$\text{update rule: } - \eta \cdot \text{error} \cdot x_i$$

$\Rightarrow 0.11$

0

$$w_{\text{new}} = \underline{w_{\text{old}}} + \eta(y - \hat{y})x^{n-1}$$

✓

$$w_{\text{new}} = w_{\text{old}} + \eta^{\circ.1} (y - \hat{y}) x^n$$

predicted input

$$\underline{b_{\text{new}}} = b_{\text{old}} + \eta (y - \hat{y})$$