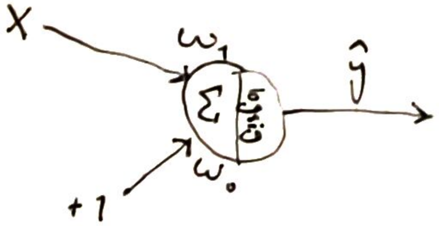

$$\omega_1^{t+1} = \omega_1^t - \mu \cdot \frac{\partial \mathcal{L}_{MSE}}{\partial \omega_1}$$

$$= \omega_1^t - \mu \cdot \frac{\partial \frac{1}{N}\sum_{i=1}^{N}\left((\hat{y}_i - y_i)^2\right)}{\partial \omega_1}$$

$$\omega_1^{t+1} = \omega_1^t - \frac{\mu}{N}\sum_{i=1}^{N}\left(\frac{\partial(\hat{y}_i - y_i)^2}{\partial\omega_1}\right)$$

$$\omega_1^{t+1} = \omega_1^t - \frac{2\mu}{N}\sum_{i=1}^{N}\left((\hat{y}_i - y_i)\cdot\frac{\partial(\text{logsig}(\omega_1 x_i+\omega_0) - y_i))}{\partial\omega_1}\right)$$

$$\omega_1^{t+1} = \omega_1^t - \frac{2\cdot\mu}{N}\cdot\sum_{i=1}^{N}\left((\hat{y}_i - y_i)\cdot \text{logsig}(\omega_1 x_i+\omega_0)\cdot(1-\text{logsig}(-))\cdot x_i\right)$$

$$\omega_0^{t+1} = \omega_0^t - \frac{2\mu}{N}\cdot\sum_{i=1}^{N}\left((\hat{y}_i - y_i)\cdot\text{logsig}(\omega_1 x_i+\omega_0)\cdot(1-\text{logsig}(\omega_1 x_i+\omega_0))\right)$$