Austin Ray Pset 2 CS 221

# Problem 2

a.]

$$Loss(x, y, w) = Loss_{squared}(x, y, w)$$

$$= (residual(x, y, w))^2$$

$$= (prediction - target)^2$$

$$= (\sigma(w \cdot phi(x)) - y)^2$$

$$= ((1 + e^{-w \cdot \phi(x)})^{-1} - y)^2$$

$$\boxed{Loss(x, y, w) = ((1 + e^{-w \cdot \phi(x)})^{-1} - y)^2}$$