

$$\frac{\partial R}{\partial w_{kl}} = \frac{1}{N} \sum_n \left[ \frac{\partial \frac{1}{2} (y_n - g(a_{l,n}))^2}{\partial a_{l,n}} \right] \left[ \frac{\partial z_{k,n} w_{kl}}{\partial w_{kl}} \right] = \frac{1}{N} \sum_n \left[ - (y_n - z_{l,n}) g'(a_{l,n}) \right] z_{k,n}$$