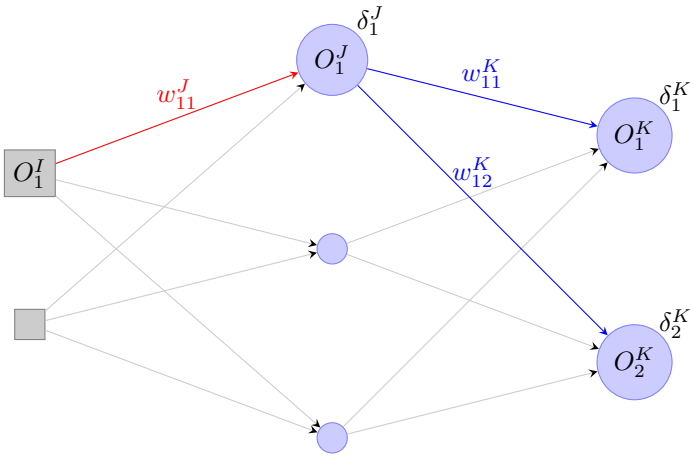
Example computation of the backpropagation manually. Assume that all layers besides the input layer are using the sigmoid transfer function $\sigma(x) = \dfrac{1}{1+e^{-x}}$



First let's compute the δ's for the output layer, here denoted by K.

We will compute the δ_1^K, and δ_2^K will be similar.
Suppose that the desired value for the node O_1^K is t_1. Then

$$\delta_1^K = \underbrace{O_1^K(1-O_1^K)}_{\text{Derivative of } \sigma}(O_1^K - t_1)$$

Then to update the weight w_{11}^K we compute

$$\Delta w_{11}^K = -\eta \delta_1^K O_1^J$$

Now, to compute δ_1^J we follow the formula to get

$$\delta_1^J = \underbrace{O_1^J(1-O_1^J)}_{\text{Derivative of } \sigma} \underbrace{(w_{11}^K \delta_1^K + w_{12}^K \delta_2^K)}_{\sum_{n=1,2} w_{1n}^K \delta_n^K}$$

Then to update the weight w_{11}^J we compute

$$\Delta w_{11}^J = -\eta \delta_1^J O_1^I$$

Hope that helps!