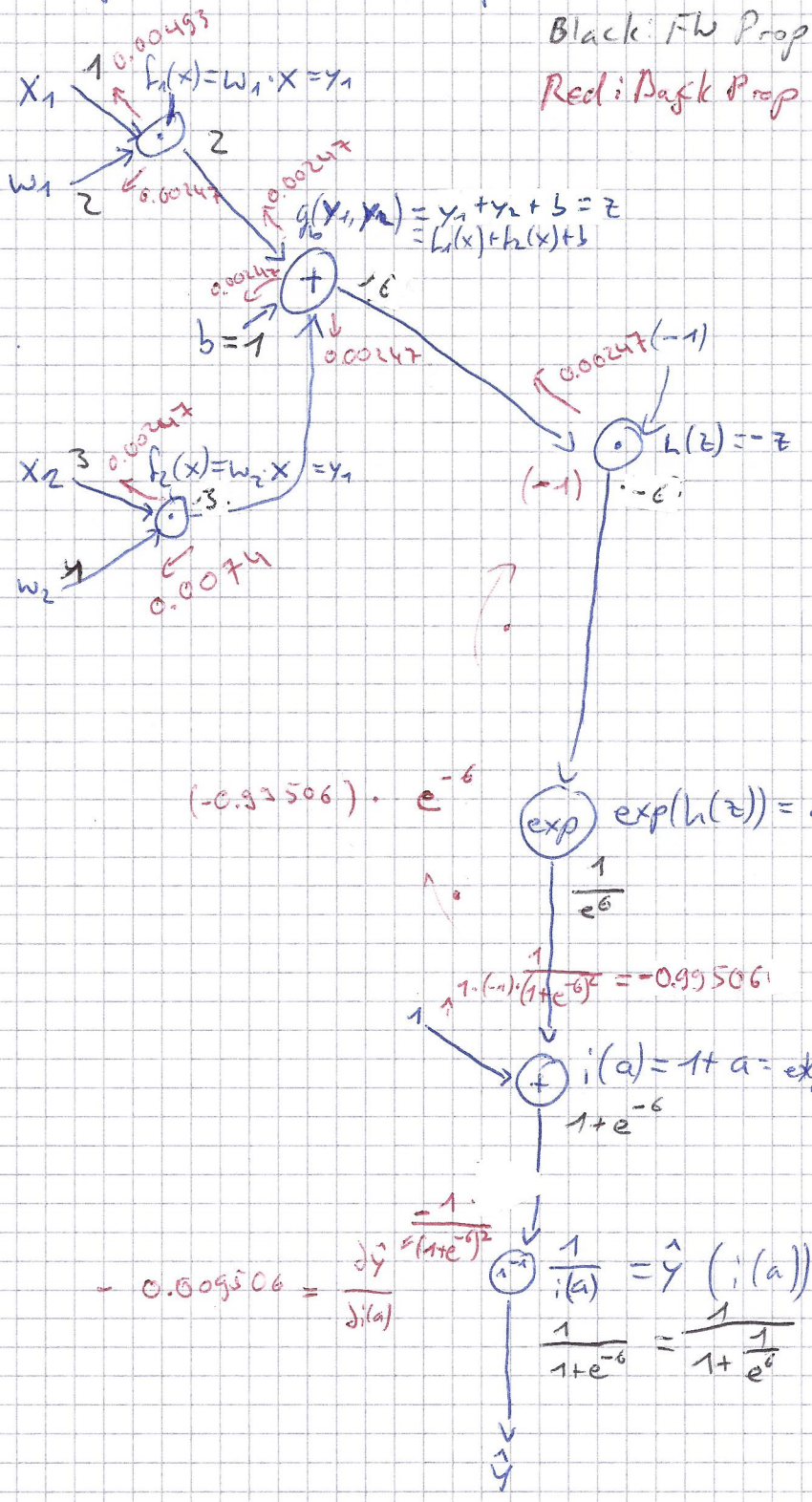
DL PW 6

Computational Graph



Derivatives:

$$\frac{\partial h_1}{\partial x_1} = w_1, \quad \frac{\partial h_1}{\partial w_1} = x$$

$$\frac{\partial h_2}{\partial x} = w_2, \quad \frac{\partial h_2}{\partial w_2} = x$$

$$\frac{\partial g}{\partial y_1} = 1, \quad \frac{\partial g}{\partial y_2} = 1, \quad \frac{\partial g}{\partial b} = 1$$

$$\frac{\partial h}{\partial z} = -1$$

$$\frac{\partial \exp(\cdot)}{\partial \cdot} = \exp(\cdot)$$

$$\frac{\partial i}{\partial a} = 1$$

$$\frac{\partial \hat{y}}{\partial i(a)} = -\frac{1}{(i(a))^2}$$