$$\frac{\partial E}{\partial w_1} = \frac{\partial E}{\partial out_2} \cdot \frac{\partial out_2}{\partial net_2} \cdot \frac{\partial net_2}{\partial out_1} \cdot \frac{\partial out_1}{\partial net_1} \cdot \frac{\partial net_1}{\partial w_1}$$

$$= 3 \cdot w_2 \cdot Relu'(net_1) \cdot x_1$$

$$= 3 \cdot 2 \cdot 2 \cdot 1$$

$$= 12$$