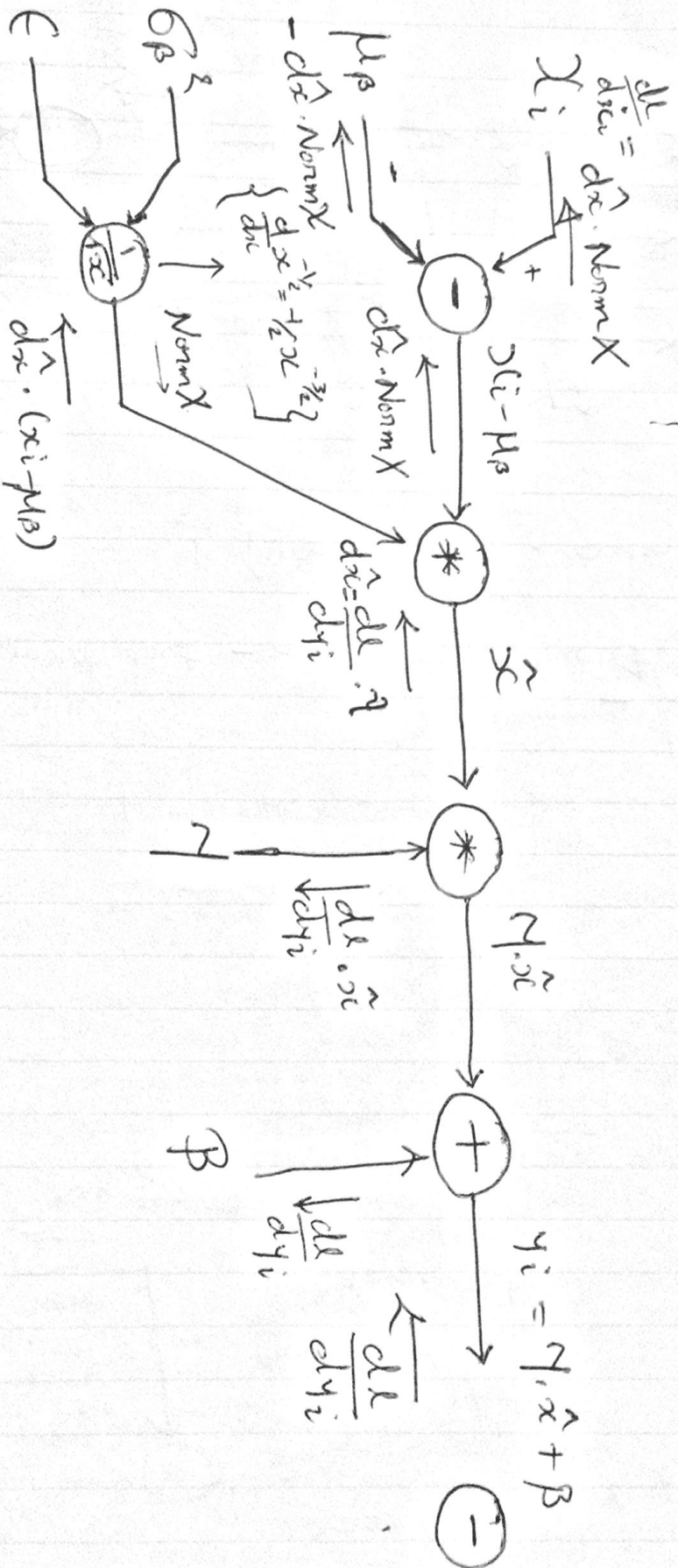


$$\frac{dw_\beta^2}{dx_i} = \frac{-2 \cdot (x_i - \mu_\beta)}{m}$$



$$\frac{dL}{dx_i} = \frac{dL}{dw_\beta} \cdot \frac{dw_\beta}{dx_i} + \frac{dL}{dw_\beta^2} \cdot \frac{dw_\beta^2}{dx_i}$$

$$\frac{dL}{dx_i} = \frac{dL}{dw_\beta} + \frac{dL}{dw_\beta^2} \cdot \frac{dw_\beta^2}{dx_i}$$