(0.7)
(0.6)

$x_1 + x_2 > 0.5 \Rightarrow x_1 + x_2 - 0.5 > 0. \Rightarrow h_1$ (OR)

$x_1 + x_2 > 1.5 \Rightarrow x_1 + x_2 - 1.5 > 0 \Rightarrow h_2$. (AND)

XOR = OR & ¬AND ⇒ h_1 ~~&~~ $\neg h_2$.

h_1 & $(1-h_2) = h_1 + (1-h_2) - 1.5 > 0.$

$h_1 + 1 - h_2 - 1.5 > 0 \Rightarrow h_1 - h_2 - 0.5 > 0$

$$\frac{dJ}{dw} \qquad \frac{d\, f(x(t))}{dt} = \frac{df}{dx} \cdot \frac{dx}{dt} \qquad \overset{\bar{y}}{\frac{dL}{dy}} = \frac{1}{2} \times 2 \times (y-t) = y-t.$$

$$\overset{\bar{z}}{\frac{dL}{dz}} = \overset{\bar{y}}{\frac{dL}{dy}} \cdot \frac{dy}{dz} = \frac{dL}{dy} \cdot \sigma'(z) = (y-t) \cdot \frac{e^{-z}}{(1+e^{-z})^2}$$

$$\sigma(z) = \frac{1}{1+e^{-z}} = g = \frac{u}{v}\,;\ u = 1,\ v = 1+e^{-z}$$

$$\frac{\partial L}{\partial b} = \overset{\bar{z}}{\frac{\partial L}{\partial z}} \cdot \frac{\partial z}{\partial b} = \frac{\partial L}{\partial z} \cdot 1$$

$$g' = \frac{u'v - v'u}{v^2} = \frac{0 - (-1 \cdot e^{-z})}{(1+e^{-z})^2} = \frac{e^{-z}}{(1+e^{-z})^2}$$

$$\frac{\partial L}{\partial w} = \overset{\bar{z}}{\frac{\partial L}{\partial z}} \cdot \frac{\partial z}{\partial w} = (y-t) \cdot \frac{e^{-z}}{(1+e^{-z})^2} \cdot x$$