$$d(A,P) = 0,4$$

$$d(A,N) = 9,5$$

$$\alpha = 0,2$$

$$L(A,P,N) = \max\left(d(A,P) - d(A,N) + \alpha, 0\right) \qquad (الف)$$

$$= \max\left(0,4 - 0,5 + 0,2, 0\right) = \max\left(0,1, 0\right)$$

$$= 0,1$$

تعداد ۳ تا پارامتر نخونه؟

$$\frac{\partial g}{\partial A} = \overset{N}{\underset{i=1}{\sum}} \begin{cases} 2(e_N^{(i)} - e_P^{(i)}) & \text{if } (d(A,P) - d(A,N) + \alpha) \geq 0 \\ 0 & \text{otherwise} \end{cases} \qquad (ب)$$

$$\frac{\partial g}{\partial P} = \overset{N}{\underset{i=1}{\sum}} \begin{cases} -2(e_A^{(i)} - e_P^{(i)}) & \text{if } (d(A,P) - d(A,N) + \alpha) \geq 0 \\ 0 & \text{o.w} \end{cases}$$

$$\frac{\partial g}{\partial N} = \overset{N}{\underset{i=1}{\sum}} \begin{cases} 2(e_A^{(i)} - e_N^{(i)}) & \text{if } (d(A,P) - d(A,N) + \alpha) \geq 0 \\ 0 & \text{o.w} \end{cases}$$

$d(A,N) = 1,5$

$(\underset{c}{\smile}$

$d(A,P) = 0,4$

$\alpha = 0,2$

$L(A,P,N) = man\left(0,4 - 1,5 + 0,2, 0\right) = man\left(-0,9, 0\right)$

$= 0$

حین $\left(d(A,P) - d(A,N) + \alpha\right) < 0 \implies g_A = 0$

$g_P = 0$

$g_N = 0$