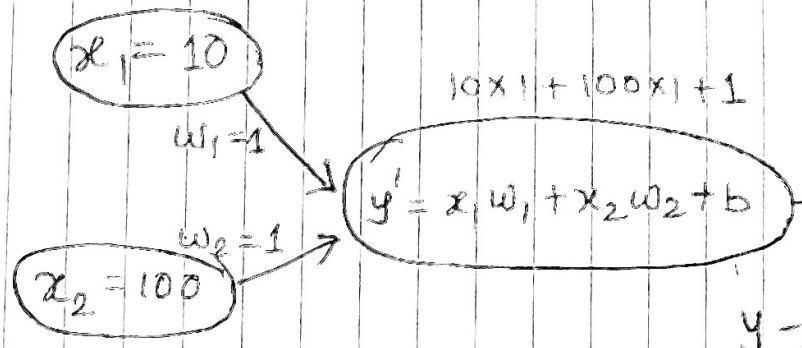
x1	x2	y
10	100	5
20	200	10
30	300	15



$y - y' = 106 = \text{Error} = e_1$

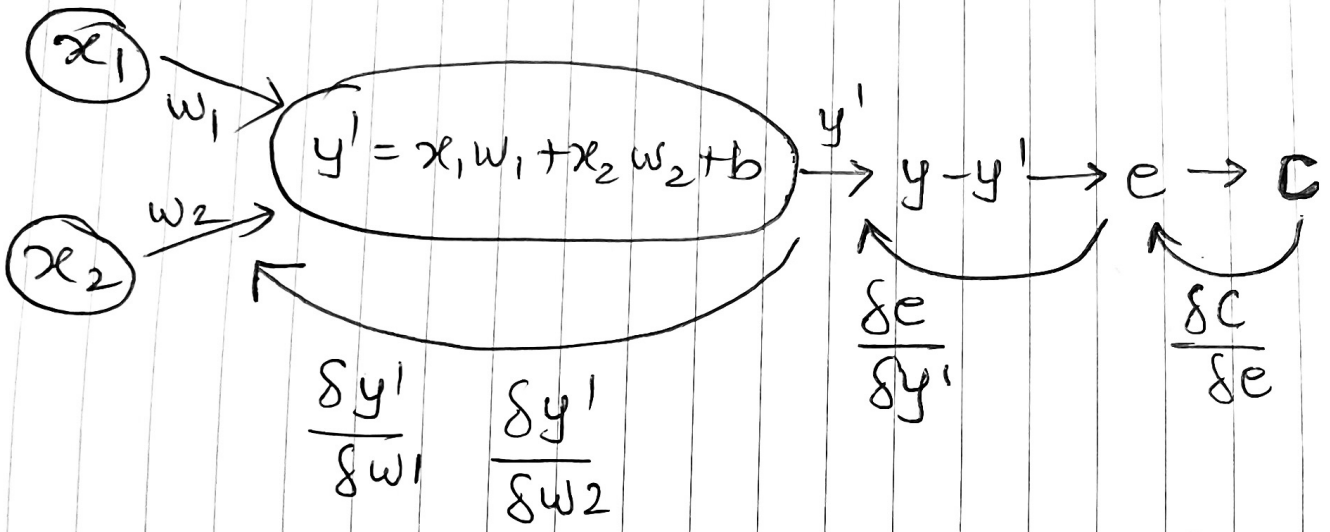
e_1^2

$$\Rightarrow \frac{e_1^2 + e_2^2 + e_3^2}{3} = MSE$$

$$W1 = w_1 - LR * Pd(w_1)$$

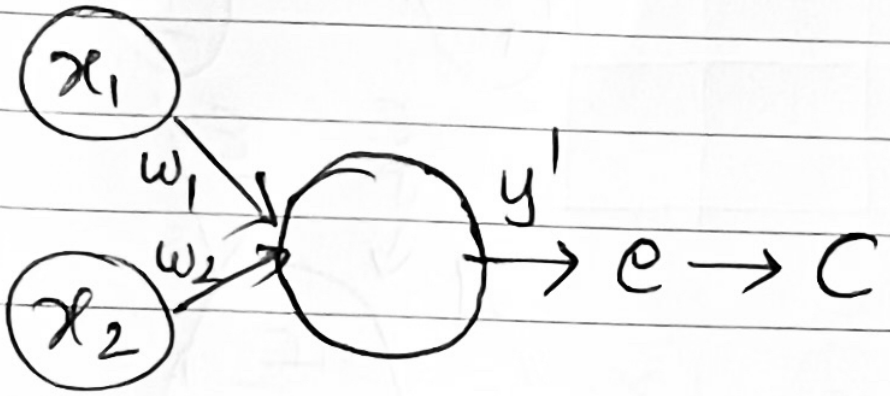
$$w_2 = w_2 - LR * Pd(w_2)$$

Date:



$$\frac{\delta C}{\delta w_1} = \frac{\delta C}{\delta e} * \frac{\delta e}{\delta y'} * \frac{\delta y'}{\delta w_1}$$

VGP



$$W1 = W1 - LR * Pd(W_1)$$

$$\frac{\delta C}{\delta w_1} = \frac{\delta C}{\delta e} * \frac{\delta e}{\delta y'} * \frac{\delta y'}{\delta w_1}$$

↓

Gradient

→ 0.005

$$W1 = W1 - (0.01) * 0.005$$
$$= W1 - 0.00005$$

won't change much

Date:

EGP

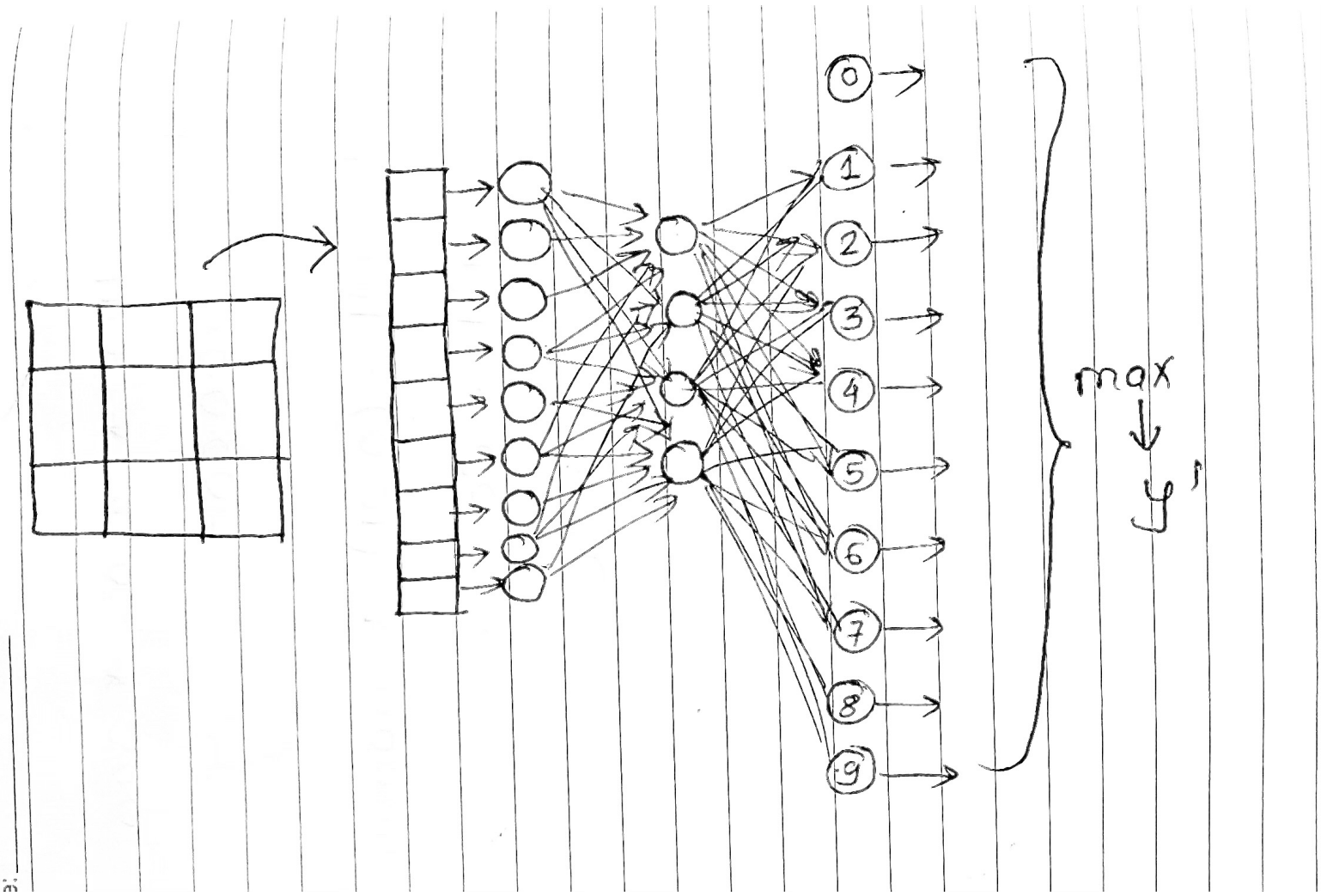
$$\frac{\delta C}{\delta w_1} = 100 * 200 * 300$$

$$= 6000000$$

$$w1 = w1 - (0.01) * 6000000$$

$$= w1 - 60000$$

huge change.


0
1
2
3
4
5
6
7
8
9
max
y