using updated parameters

epoch(2) :-

sample 1 :

$$\hat{y}_1 = 0.8(1) + 0.5(1) + 0.5 = 1.8$$

sample 2 :-

$$\hat{y}_2 = 0.8(2) + 0.5(1) + 0.5 = 2.6$$

errors:

$$e_1 = \hat{y}_1 - y_2 = -0.2$$

$$e_2 = \hat{y}_2 - y_2 = -0.4$$

Gradients:

$$\frac{\partial L}{\partial w_1} = -1 \qquad \frac{\partial L}{\partial w_2} = -0.6$$

$$\frac{\partial L}{\partial b} = -0.6$$

updated parameter

$$w_1 = 0.9 \qquad w_2 = 0.56$$

$$b = 0.56$$

epoch 3:

(forward pass)

sample 1:

$$\hat{y}_1 = 0.9 + 0.56 + 0.56 = 2.02$$

sample 2:

$$\hat{y}_2 = 1.8 + 0.56 + 0.56 = 2.92$$

errors:

$$e_1 = 0.02 \qquad e_2 = -0.08$$