# HW 2.

Let init $\theta_0 = \theta_1 = \theta_2 = 0.1$

| row | $X_1$ | $X_2$ | $Y$ |
|---|---|---|---|
| 1 | 2 | 3 | 1 |
| 2 | 1 | 4 | 0 |
| 3 | 4 | 5 | 1 |

(1) Find the error of each row by using negative log loss function eq. on page 22

(2) Train the Logistic Regression model by using stochastic GD. You can train the model with 2 iterations and find the final values of $\theta_0, \theta_1, \theta_2$

* Let learning rate = 0.01

(3) Work on 2) again, but in this time, you have to add

3.1) Ridge regression ($\lambda = 10$)

3.2) Lasso regression ($\lambda = 0.2$)

then find the $\theta_0, \theta_1, \theta_2$'s values.