Homework 2.

Problem 1.)

The linear model is: y = XB +e

Y – is the response function and is the variable we are trying to measure of explain, which is (nx1) dimensional, is observed, and is a random variable.

X – is the regressor variable, is (nxp) dimensional where p is the number of regressors. This a measure quantity and can be either fixed or random as there are “Fixed Regressors” and “Random Regressors”

B = is the regressor parameter. And is (px1) dimensional where p is the number of regressors. This quantity is estimated.

e – is the error, is (nx1) dimensional, and is a random component.