1. (50 pts) A researcher would like to examine a few methods for curing depression. A total of 50 patients were randomly and equally assigned to five treatment groups. The researcher obtained depression measures before and after treatment. Please download data *Depression\_new.sav* from Blackboard. Look at Variable View to explore the variables.

a. (5 pts) Examine the relationship between covariate and dependent variable. Show your work.

b. (5 pts) Examine the independence between covariate and independent variable. Show your work.

c. (10 pts) Test the assumption of homogeneous regression slopes across groups. Show your work.

d. (10 pts) Conduct one-way ANOVA without including the covariate. Report and interpret the results.

e. (10 pts) Conduct ANCOVA with the inclusion of the covariate. Report and interpret the results.

f. (10 pts) Compare results in d and e and briefly comment on the contribution of the covariate to the model. Would you expect this based on the result in (a)?