- I. Using your own data, select two predictor variables  $(X_1 \text{ and } X_2)$  and one criterion variable (Y; these can be the same of different than the variables used in the last assignment).
  - a. Using R, compute the bivariate correlations among all three variables.
  - b. By hand, compute the srs, prs,  $\beta s$ , and bs for both predictor variables from the bivariate rs, using the formulas from Class 3. Keep three decimal places and round carefully to maximize similarity in estimates by hand and using R.
  - c. Obtain srs, prs,  $\beta$ s, and bs using methods used in class.
  - d. Run SPSS Partial for each predictor variable with the criterion variable (in each case partialling out the other predictor variable)
  - e. Then complete the following table:

Statistic	First Predictor	Second Predictor
R		
$r^2$		
Sr		
$sr^2$		
Pr		
$pr^2$		
В		
В		

II. Conduct a hierarchical regression analysis with at least three blocks of predictors. Blocks can include one or more variables, though at least one block should include at least two variables. Provide a brief rationale for the sequence of blocks that you test. Write a complete results section describing the data screening conducted, any transformations conducted on the variables, bivariate correlations between variables in the model, multiple regression results, and attention to regression assumptions. In writing the results, describe both changes across blocks as well individual predictors. Include relevant tables in APA format and upload your R script and data for the variables used in the assignment.