HW1 (Due: April 6)

1. Reproduce Table 2 (in Slide 9) and Figures 1 to 5, and summarize the results.
2. Using “Clinical Trial of an Anti-Epileptic Drug” data, compute correlation and covariance for measurements at each time point, separately for each arm, and summarize the results.
3. Using “Six City” data, draw a time plot of log(FEV1/Height) versus Age, with “lowess” smoothed curve. [Remark: feel free to try different lowess options if possible.]
4. Using “Six City” data (S49-), run a linear regression model with response=log(FEV) and covariates of age and log(hgt). Interpret the results in log-scale as well as unlogged scale.
5. Using “MIT Growth and Development Study” data, conduct the analyses by ANOVA and linear regression, and summarize the results. Here, would you recommend ANOVA vs. regression for this dataset?

Disclaimers:

1. You may provide SAS codes and “relevant” output [Don’t provide the entire output to save papers/trees; also, your client/boss/editor will hate it!].
2. When you summarize results, a formal paragraph or bullet points is acceptable. Focus on **“key”** results. Please make it **succinct and clear,** not lengthy.
3. Most or sample codes in SAS/R/STATA are on author’s website.