

Stat 404
Lab 13

Due: This is due Thursday 12/17 11:59pm.

Submission directions: No output please; please organize code, log and answers for ease of grading. Copy and paste all R and SAS code and SAS log into a document to upload into BbLearn (please submit either Word or PDF (or equivalents thereof). Thanks!

All problems are to be completed in both SAS and R

1. Decagon Devices in Pullman, WA makes probes to measure soil moisture and temperature. The variables are the time to make a batch of probes and the cost associated with each batch. We are interested in estimating each batch's cost based on the time to make the batch. [data: decagon.csv]
 - a. Conduct a regression analysis.
 - b. Conduct a significance test of the slope, state hypotheses.
 - c. What is the correlation and R^2 ?

2. The article "Origin of Precambrian Iron Formations" (*Econ. Geology*, 1964: 1025-1057) reports data on total Fe (iron) for four types of rock formations (carbonate, silicate, magnetite, and hematite). The research question is whether or not iron content differs by rock type; state the hypotheses for this experiment and run an analysis of variance (ANOVA). [data: rocks.csv]