Checkpoint 3

Due Date

This assignment is due on Friday 9/10 at 10:00:00. Assignments not turned in by that time without an excused absence are not eligible for a retake.

Requirements

Answer the following questions in a pdf document with your name and the assignment clearly labeled at the top.

Questions

1. State three properties of the expectation operator.
2. State the variance of a line and the variance of the sum of two random variables.
3. Define mean independence. Why is this useful for regression?
4. Suppose we have two variables, **X** and **Y** and we run the regression of **Y** on **X**. Consider the model as $y_i = \beta_0 + \beta_1 x_i + u_i$. Define in words what β_0 and $beta_1$ are. What values do we need to identify them? You can answer with either mathemetical definitions or in words.
5. Suppose we have heteroskedastic errors (which in practice is always true). Is OLS estimator for a parameter biased? Why or why not?

Sufficient Work

An assignment shows sufficient work if all questions are answered, and there is a clear effort for those answers to be correct.

Evaluation

P/NP

Retake Policy

There is one make-up for this assignment. Students must turn in the make-up exam at the beginning of Section on Wednesday.