

Midterm Exam

Please answer the following questions and submit your answers in class.

1. What is Ordinary Least Squares? What is Maximum Likelihood Estimation?
2. What are the Gauss-Markov assumptions?
3. Why are the OLS estimates of regression coefficients equal to the MLE estimates?
4. What is the standard error of regression? What is the standard error of a regression coefficient?
5. Why doesn't OLS provide us with an estimate of the standard error?
6. What is the relationship between MLE's second-order conditions and the standard errors of the coefficient estimates?
7. How do the MLE second-order conditions provide us with estimates of:
 - (a) the standard error of the regression?
 - (b) the standard error of the regression coefficients?