Introduction to Econometrics

Fall 2004

Assignment 1

Today's Date: 9/13/2004
Due Date: 9/20/2004

Please show all of your work and clearly indicate your final response to each question.

1. W B.6
2. W B.10
3. W C.1
4. W C.2
5. W C.5
6. Let $Y \sim N(\mu_Y, \sigma_Y^2)$. Based on a random sample of size n, write down the following estimators for the population mean. You can assume that σ_Y^2 is known (thus a valid estimator can include this parameter).
    1. The method of moments estimator based on the sample mean.
    2. The method of moments estimator based on the sample median.
    3. The maximum likelihood estimator.

Compare the estimators above, in terms of their distributions in finite samples and indefinitely large ones.