

Midterm 2 will cover Chapter 9.

You should be able to:

- Compute the variance of an estimator and the relative efficiency of two unbiased estimators.
- Show a (sequence of) estimators is consistent by using Tchebysheff's inequality, the weak law of large numbers or the definition directly.
- Use the factorization criteria theorem to show a statistic is sufficient.
- Use the Rao-Blackwell theorem to argue that a given estimator is the MVUE.
- Find estimators using the Method of Moments and maximizing the likelihood function.
- Use the asymptotic normality of the MLE to construct confidence intervals for estimators.
- Compute the Fisher information of a random sample.
- Whatever else was on the homework.

The unstarred problems in the back of Chapter 9 are good for practice, as are many of the problems for the chapter.

Calculators will not be needed.