Homework 2 - Due Friday, February 11

Do Problems 8.3, 8.10, 8.15, 8.24, 8.28 and the problem below.

Homework should be written neatly and clearly explained.
Turn in your R code (preferably in a .txt or .pdf document) as well as the histogram of your results. You can put your code/pictures in a file or turn in a screenshot of the output. You should label your histograms or at least indicate somewhere what each histogram corresponds to.

Problem 1. Let $X_1, X_2, X_3, \ldots, X_{50}$ be independent Poisson random variables with mean 2.

1. Simulate the estimator you found in 8.10 a).
2. Repeat part 1. 500 times and plot the histogram.
3. Simulate the estimator you found in 8.10 c) 1000 times and plot the histogram. How does your simulation indicate that you estimator is unbiased?