# Homework 6

## Math 483 Fall 2019

## due: October 3, 2019 by 5pm

## Problems from the Book

Chapter 7: 2, 6, 7.

## Problem A.

We are trying to estimate the mean $\mu$ of Poisson distribution. A sample of size $n = 150$ yielded $\overline{X} = 2.87$. Find a 95% confidence interval for $\mu$.

## Problem B.

For the data set on Dow Jones stock returns `DJIret.txt` (look for it under the "R stuff" link),

a. Compute the 95% confidence band for the CDF of returns $F(x)$ based on the DKW inequality.

b. Will the Normal distribution be a good model here? Overlay your CDF plot with the Normal CDF and see if it falls into the confidence band.