HOMEWORK 8
STAT 201-502

Lecture 16 & 17 Material

1. A study is designed to test $H_o : p = 0.50 \; VS \; H_a : p > 0.50$, taking a random sample of size $n = 100$, using significance level 0.05.

   (a) Show that the rejection region consists of values of $\hat{p} > 0.582$.

   (b) Sketch a single picture that shows (i) the sampling distribution of $\hat{p}$ when H_o is true and (ii) the sampleing distribution of $\hat{p}$ when $p = 0.60$. Label each sampling distribution with its mean and standard deviation, and highlight the rejection region.

   (c) Find P(Type II error) when $p = 0.60$.

2. Do textbook problems 6.72(p428), 6.74(p428), 6.96(p440) and 6.99(p441)