IEOR 3600: HMWK 7

From the Textbook:

Chapter 8:
Page 267; 7.
Page 280; 47, 49, 52.
Page 272; 20,21, 23 (assume that the distribution is exactly normal). 33(b) (assume that the distribution is exactly normal).

1. The heights of a random sample of 50 college students yielded a sample mean of 174.5 cm, and a sample standard deviation of 6.9cm. Construct a 95% confidence interval for the mean height of college students.

2. *Continuation:* Assuming that $\sigma \approx s(50) = 6.9$, how large should a sample size n be so as to reduce the error of the interval in half? (error size being the half-length of the confidence interval, $z_{\alpha/2}\sigma/\sqrt{n}$)

3. Repeat the above 1,2 for a 99% confidence interval.