Note: All questions should be handed in. 
Selected QUESTIONS would be graded. 
Numbers in parenthesis indicate pages in 6th Edition


2. Do Exercise 8.22 on page 370 (356) in the textbook.

3. Do Exercise 8.44 on page 376 (362) in the textbook.

4. Do Exercise 8.58 on page 387 (373) in the textbook.

5. Do Exercise 8.66 on page 388 (374) in the textbook. Assume the distribution of additional hours of sleep is fairly normal.

6. Using the data in question 5 (Exercise 8.66) use Excel to find a 99% confidence interval for the additional sleep that would be obtained on average for all people using laevohysocyamine hydrobromide. Hand in the Excel printout and write the upper and lower limits for the interval in the same printout.

Exercises for Recitations (03/23 - 03/29)

1. The US National Center for Health Statistics estimates mean weights of Americans by age, height, and sex. Forty U.S. women, 5 ft 4 in. tall and age 18-24, are randomly selected and it is found that their average weight is 136.88 lbs.

   a. Assuming the population standard deviation of all such weights is 12.0 lb, determine a 70% confidence interval for the mean weight \( \mu \), of all U.S. women 5 ft 4 in. tall and in the age group 18-24 years.

   b. Interpret your answer in part (a).
2. As reported by the Department of Agriculture in Crop Production, the mean yield of oats for U.S. farms is 58.4 bushels per acre. A farmer wants to estimate his mean yield using an organic method. He uses the method on a random sample of 25 1-acre plots and obtained a mean of 61.49 and a standard deviation of 3.754 bushels. Assume yield is normally distributed.

a. Find a 99% confidence interval for the mean yield per acre, \( \mu \), that this farmer will get on his land with the organic method.

b. Does it appear that the farmer will get a mean yield different from the national average by using the organic method? Explain your answer.

3. Refer to problem 2. Assume now that the standard deviation is a population standard deviation.

a. Find a 99% CI for the mean yield per acre, \( \mu \), that this farmer will get on his land with the organic method.

b. Find the sample size required to have a margin of error of 1 bushel and a 99% confidence level?