From the book\ (Statistical Techniques in Business and Economics)

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Chapter 8
1. Packages of sugar bags for Sweeter Sugar Inc. have an average weight of 16 ounces and a standard deviation of 0.24 ounces. The weights of the sugar bags are normally distributed. What is the probability that 16 randomly selected packages will have an average weight in excess of 16.08 ounces?

Chapter 9
2. A sample of 16 items yields  $\overbar{X}$ = 50 grams and s = 2.5 grams. Assuming a normal population distribution, construct a 95 percent confidence interval for the population mean weight.

3. Of a random sample of 600 trucks at a bridge, 120 had bad signal lights. Construct a 99 percent confidence interval for the percentage of trucks that had bad signal lights.

4. A cable TV company wants to estimate the percentage of cable boxes in use during an evening hour. A previous estimate is 25 percent. They want the estimate to be at the 95 percent confidence level and within 3 percentage points of the actual proportion. What sample size is needed?

Chapter 10
5. Test H0: *μ* ≥ 8 versus HA: *μ* < 8, given *α*=.01, n=36,   =7.8 and s=.42. Assume the sample is selected from a normally distributed population.

6. Test H0: π ≤ 0.22 versus HA: π > 0.22 with  p =.28 and n=144 at alpha=.01.