**ISQA 8160**

**Problems in class**

**3.1 The Binomial Test and Estimation of P**

**1**. A coin is tosses 10 times and 3 heads and 7 tails are observed. Is this a biased coin? Use 0.05 level of significance. **(n<=20)**

**2.** (#2 0n page 133) Of 16 cars inspected during a safety campaign, 6 were found to be unsafe. Test the hypothesis that not more than 10% of the cars in the population are unsafe. At .05 level of significance. **(n<=20)**

**3.** A coin is tosses 500 times and 220 tails are observed. Is this a biased coin? Use 0.05 level of significance. **(n>20)**

**With Data**

**4.** Over the past year, 20% of the players at Pine Creek were women. Pine Creek implemented a special promotion to attract women golfer. Twelve out of a sample of 35 golfers were women. The course manager requested a statistical study to determine whether the proportion of women players had increased. Use 0.05 level of significance. **(n>20)**

**5.** (# 4 on page 134) in exercise 2, what is a 90% CI for the true proportion of unsafe cars in the population?

**6.** In exercise 4, what is a 90% CI for the true proportion of women golfers?