

Math 110
Spring, 2009

Name _____
Calculator _____

Homework #15

Due Thursday May 21

NO late homework accepted! No excuses!

1. Do professional golfers play better in their first round? A random sample of finalists in the British Open gave the following data for their first and last rounds in the tournament. Do the data indicate that the population mean score on the last round is higher than that on the first? Use a 5% level of significance.

Last	73	68	73	71	71	72	68	68	74
First	66	70	64	71	65	71	71	71	71

2. A study is made of residents in Phoenix and its suburbs concerning the proportion of residents who subscribe to *Sporting News*. A random sample of 88 urban residents showed that 12 subscribed and a random sample of 97 suburban residents showed that 18 subscribed. Does this indicate that a higher proportion of suburban residents subscribe to *Sporting News* at a 5% significance level?

3. In crash tests at 5 miles per hour, the mean bumper repair cost for 14 randomly selected small cars is \$473 with a standard deviation of \$190. In similar tests of 23 randomly selected midsize cars, the mean bumper repair cost is \$741 with a standard deviation of \$205. At a 10% significance level, can you conclude that the mean bumper repair cost is less for small cars than it is for midsize cars?

4. A tourist agency in Kansas claims the mean daily cost of meals and lodging for a family of 4 traveling in the state is \$201. You work for a consumer protection advocate and want to test this claim. In a random sample of 35 families of 4 traveling in Kansas, the mean daily cost of meals and lodging is \$216 with a standard deviation of \$30. Do you have enough evidence to reject the agency's claim at a 5% significance level?