

Math 110
Spring, 2009

Name _____
Calculator _____

Homework #13
Due Monday May 11
No late papers accepted! No excuses!

1. A medical investigation claims that the average number of infections per week at a hospital in southwestern Pennsylvania is 16.3. A random sample of 10 weeks had a mean of 17.7 infections with a standard deviation of 1.8. Is there enough evidence to reject the investigator's claim at a 5% significance level?

2. Approximately 19.4% of the U. S. population 5 years old or older speaks a language other than English at home. In a large metropolitan area it was found that out of 400 randomly selected residents over 5 years of age, 94 spoke a language other than English at home. Is there sufficient evidence to conclude that the proportion is higher than the national proportion at a 5% significance level? Use the p-value approach.