

### One Sample T-Tests Problems

- 1) A sample of college students was given the Gudjonsson compliance scale and their scores are listed below. The mean for this scale is 14. Can we conclude that these college students have a significantly higher score for compliance than the mean score? What is our effect size? What is the 95% confidence interval for compliance scores?

15, 15, 18, 11, 16, 14, 18, 8, 14, 13, 16, 19, 20, 18, 14

- 2) A population has a mean of 5 for anxiety scores on a particular test. A sample of race car drivers was given the same test for anxiety. Do race car drivers have significantly lower scores for anxiety than the population? What is our effect size? What is the 95% confidence interval for race car drivers' anxiety scores?

3, 2, 5, 7, 3, 4, 6, 1, 3, 4, 6, 2, 4, 1, 2

- 3) Several years ago, a survey found that the average age for drinking at school A was  $\mu=15$ . A random sample of students' reports of age of first drink from school A was just gathered and is listed below. Can we conclude that the average age for drinking has changed? What is our effect size? What is the 95% confidence interval? Calculate the power for problem 3. What is the probability for a Type II error in this problem?

14, 15, 16, 17, 16, 14, 15, 16, 17