Directions for StatCrunch 3 Assignment
One Sample t-Test

A school psychologist wants to examine the effects of excessive television viewing on reading ability. It is known that the average number of words read per minute for a fourth grade student is **μ =52**. The psychologist has students log the number of hours one watches TV for two weeks. Fifteen students who average 3 or more hours of television viewing each night are selected to participate in the study. **Can the school psychologist conclude that excessive television viewing decreases reading ability?** Use the reading data below to analyze in StatCrunch or SPSS. Test at the .05 level.

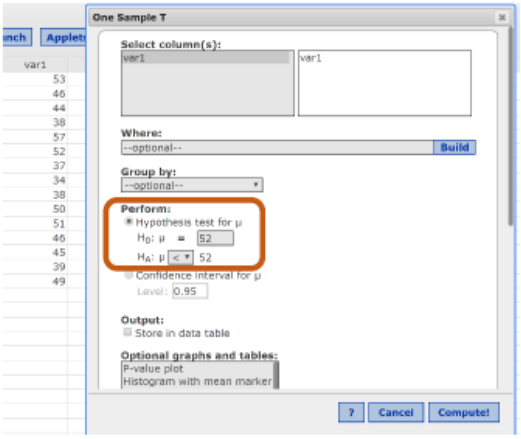
Reading
53
46
44
38
57
52
37
34
38
50
51
46
45
39
49

StatCrunch

In this scenario, we are comparing our sample mean (generated from the column of reading data) to the population mean of 52. In StatCrunch, you need to conduct two analyses. The first is a hypothesis test and the second is a confidence interval. Be sure to enter data in a column just as it appears on the answer sheet (and in these directions).

Hypothesis *t*-Test Step by Step Instructions

1. Enter dependent variable data in first column (var1).
2. Within the data window, 🖱 the **Stat** menu, select **T Stats >One Sample >with Data**.
3. Within One Sample T dialogue box, under **Select Column(s)**, 🖱 your dependent variable (likely var1).
4. Under **Perform:** select **Hypothesis Test for μ**
   - By H_0 indicate population mean (52)
   - By H_A indicate the direction of test (<)
5. 🖱 **Compute.**



Confidence Interval Step by Step Instructions

1. Within the data window, 🖱 the **Stat** menu, select **T Stats >One Sample >with Data**.
2. Within One Sample T dialogue box, under **Select Column(s)**, 🖱 your dependent variable (likely var1).
3. Under **Perform:** select **Confidence Interval for μ**
   - The default is 95%, occasionally you may be asked to change this to 99%
4. 🖱 **Compute.**