Homework 9 (Chapter 8) StatCrunch Tips & Directions

The MyLab questions from Section 8.3 for means hypothesis tests generally ask for exact P-values. As discussed in the Chapter 8 Worksheet and in class, exact P-values cannot be calculated from the t table, so it is necessary to use statistical software (StatCrunch from our e-text) to calculate exact P-values for means problems.

In contrast, exact P-values for proportions hypothesis tests in Section 8.2 are calculated from the Z table, also as shown in the Chapter 8 Worksheet.

MyLab questions ask students to calculate P-values for means problems in three ways. Here are StatCrunch directions for all three scenarios:

- **StatCrunch Steps to Calculate a *P*-Value From a Pre-Calculated *t* Statistic Value**

  1. Menu Selection: Stat > Calculators > T
  2. Enter DF $= n - 1$
  3. Choose t curve shading direction " $\leq$ " or " $\geq$ " to match the alternative hypothesis H_1
  4. Enter t statistic value into middle box
  5. Compute!

- **StatCrunch Steps to Calculate a *P*-Value From Data Summary Statistics**

  1. Menu Selection: Stat > T Stats > One Sample > With Summary
  2. Enter values for $\bar{x}$, s, and n.
  3. Enter null value μ_0 from the null hypothesis H_0
  4. Enter direction " $\neq$ ", " $<$ ", or " $>$ " for alternative hypothesis H_1 (that StatCrunch calls H_A)
  5. (Optional) Enter significance level and check Show critical value output option
  6. Compute!

- **StatCrunch Steps to Calculate a *P*-Value From Original Data**

  1. Menu Selection: Stat > T Stats > One Sample > With Data
  2. Select data column to be analyzed
  3. Enter null value μ_0 from the null hypothesis H_0
  4. Enter direction " $\neq$ ", " $<$ ", or " $>$ " for alternative hypothesis H_1 (that StatCrunch calls H_A)
  5. (Optional) Enter significance level and check Show critical value output option
  6. Compute!