**PSY 230 Lab Assignment 7   
Points: 15**

***This assignment consists of two parts—one part for the next two weeks. Please turn in both parts of this assignment together. Part 1 requires students to use SPSS to compute the t-test for independent samples. Part 2 requires students to use SPSS to compute the t-test for related samples. For each problem, run the t-test in SPSS and type the following information: (1) State the null and alternative hypotheses; (2) Paste in the data matrices and indicate your decision (retain Ho or reject Ho); and (3) Write a couple of sentences showing how the results would be reported in the Results section of an APA paper (See G&W Ch. 10 and G&W Ch. 10 for "In the Literature" APA sample).   
  
Part 1—Work on 3/19 & 3/21***(1) SPSS handout—feedback for a length estimation task. Posted on course website.

(2) A psychologist theorized that people hear differently when they have just eaten a large meal. Six individuals were randomly assigned to eat either a large meal or a small meal. After eating the meal, their hearing was tested. The hearing ability scores (higher numbers indicate greater hearing ability) are given below. Using the .05 level of significance, do the results support the psychologist's non-directional hypothesis?

   Small Meal Group                            Big Meal Group

Subject        Hearing                        Subject        Hearing

A                    22                                D                19

B                    25                                E                 23

C                    25                                F                 21

***Part II—Work on 3/26 and 3/28***1. Pelton (1983) reported that Olympic-level marksmen shoot differently if they fire between heartbeats rather than squeezing the trigger during a heartbeat. The small vibration caused by a heartbeat seems to be sufficient to affect the marksmen’s aim. A sample of *n* = 8 Olympic marksmen fire a series of rounds while a researcher records heartbeats. For each marksman, the total score is recorded for shots fired during heartbeats AND shots fired between heartbeats. Do these data indicate a significant difference? Use a 2-tailed test with alpha = .05.

Marksman During Between

A 93 98

B 90 94

C 95 96

D 92 91

E 95 97

F 91 97

G 92 95

H 93 97  
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2.

Not Humorous Humorous

10 11

2 5

1 2

15 18

7 9

A researcher is interested in the impact of humor on memory for sentences. A sample of *n* = 5 participants read a mixture of 20 humorous sentences and 20 non humorous sentences. Scores indicate the number of sentences of that type (20 max) accurately recalled by each participant.

Do the data indicate a significant difference in recall between the two types of sentences? Again, use a two-tailed test with alpha = .05.

a. State the null and alternative hypotheses.

b. Indicate your decision (Retain or Reject the null hypothesis?)

c. Type a report of the results in APA format.