Psychology 241, Lab 3: statistics (t-tests) **Name _____**

Answer Sheet

1. Identify whether each of these variables is an IV or a DV: (circle IV or DV for each)

count IV / DV sex IV / DV right IV / DV left IV / DV

There is another way you could interpret this data set that is probably more appropriate. This experiment actually has 3 IVs and 1 DV. Identify them:

IV: _____ IV: _____ IV: _____ DV: _____

2a. Are there any missing cases for any of the variables?

2b. Are there any invalid values for any of the variables?

2c. Were there an equal number of subjects in each condition for the variable "count"? _____ For the variable "sex"? _____

3. Are there any outliers for either of the variables "right" or "left"? ___y____(yes/no) If yes, identify each outlying data point by variable name, ID number, and value (score on that variable).

4. What was the mean number of minutes that female participants were able to balance on the right foot while counting backwards? _____

5a. What were the values of t and p reported in the SPSS output? t : _____ p : _____
How many degrees of freedom were there? _____

5b. In a complete sentence, report the results of this comparison. You should state whether the difference between the means of the two conditions was significant, state what the means were, then at the end of the sentence place a comma and then report the results of the t-test.

6. In a complete sentence, report the results of this comparison as you did for #5.

7a. What is the Pearson correlation coefficient for the variables "left" and "right"? _____ What is the p value associated with this correlation? _____

7b. What is the null hypothesis that is tested when you do a t-test?

7c. When a p value is reported, it means that you are doing hypothesis testing (inferential statistics). Hypothesis testing requires that you have a null hypothesis to test. What do you think the null hypothesis is for a correlation?

8) If there is an outlying data point in the scatter-plot, what are the scores for that individual on the variables "left" and "right" (approximately)?

left: _____

right: _____