**Psy 430 Thinking & Problem Solving Lab**

A researcher wants to investigate the relationship between anxiety and performance on problem solving task. He used an independent measures design and measured the number of problems correctly solved in a 5-minute period. The data he collected are displayed in a matrix where the levels of task difficulty make up the rows and the levels of anxiety make up the columns.

 *Anxiety Level*

 Low Medium High

Easy 3 2 9

 1 5 9

 1 9 13

 6 7 6

*Task Difficulty* 4 7 8

 0 3 0

 2 8 0

Difficult 0 3 0

 0 3 5

 3 3 0

1. Use SPSS to run the overall analysis. *Analyze, General linear model, Univariate*. Be sure to request descriptive statistics and measures of effect size. Also request a plot depicting changes in correct solutions (vertical axis) across task difficulty (horizontal axis) for each of the anxiety conditions (separate lines).

2. Now follow up on the significant interaction with a simple main effects analysis.
*Data, Select cases, Anxiety = 1. Then run an independent samples t-test.*

 *Repeat this process for the other two anxiety levels.*

Please run the analysis in SPSS and copy or snip the output from the overall ANOVA and from the simple main effects analysis. Place at the very end of your lab document.

3. Use *alpha* = .05 to interpret all the results. Please type a short report of the results in APA format. Be sure to include one table and one figure. See the factorial ANOVA sample results section.