1. A developmental psychologist studying theory of mind among normally developing and mildly autistic young children selects a sample of children of each type. Within each of these two groups of children, half are 4 years old and the other half are 6 years old. Each child is given a test measuring how well his or her theory of mind has developed. The resulting data are analyzed using a two-factor analysis of variance. What are the two independent variables and what are the levels of each variable? What is the dependent variable?

2. For each of the two plots of data below (representing two different sets of data), indicate which effects are significant (main effect of factor A, main effect of factor B, and interaction). A difference between means (or a difference between differences) of 2 or more is deemed significant.

3. Construct a table of means for a 3 x 2 design in which the row main effect is significant, the column main effect is significant, and the interaction is not significant. A difference between means (or a difference between differences) of 3 or more is deemed significant. The row factor has 3 levels and the column factor has 2 levels.

4. Construct a bar graph for a 2 x 2 design in which one main effect is significant, the other main effect is not significant, and the interaction is not significant. A difference between means (or a difference between differences) of 4 or more is deemed significant.

Note: An expanded version of this assignment, including computational questions, will be posted after Examination 2.