Homework #3 Stat 578 Due: Monday, February 8, 2010

1. (8pts) Problem 3.13 (a)-(d) and (f) only, page 129-30 (The 2 files on the back of this page are on my STAT 578 webpage). The first program will generate the set of 31 model parameter estimates. You must then insert these estimates as the data in the second program which will generate the normal probability plot of effects. This plot will then help you determine what effects can be pooled so a final analysis can be performed.

- In part (a) label each outlying point with its associated effect.
- In part (b), form the error by pooling the three-factor and higher order interaction terms.

2. Reconsider the plot in Problem 3.13 (a),

(a) (1pt) Which factor or factors do not seem important? If these factors were ignored, what design would result for the remaining important factors?

(b) (3pt) Generate an ANOVA table corresponding to the model without this factor(s). Reconsider (f). Are your recommendations from this ANOVA consistent with your original recommendations?

3. (3pts) Problem 3.28, page 133.


5. (2pt) Look at the data in table E3.5 on page 127. The description is given in Problem 3.8. Describe how the analysis would change (if at all) if

- The data collection was completely randomized.
- The replicates were run in order (I then II then III then IV) with the four A/B combinations randomized within each replicate.