1. Exercise 10.3.4 on page 425 in Rosner (1995). Write a general linear model to analyze whether post-operative length of hospital stay (in days) depends on pre-operative length of stay (days) and number of current medical problems (ranging from 1 up to 4). Be sure to assign a name and symbol to all response and explanatory variables.

2. Write a general linear model for the following tests. Use Y for response variable, X1 (and X2 if necessary) for nominal scale (classification) variables, and Z for ratio scale (regression) variables.

Two-way ANOVA_____

t-test_____

3. Complete an ANOVA table for a regression where the F-ratio is 3, the MSerror is 2.5, and there are 7 observations of the response variable.