

The final is comprehensive, and thus learning objectives from the first two tests should be used for that content. What I'm putting here are objectives for **content that came after that last test**. So mainly on model selection and understanding regression in the context of inference.

Chapter 4: Students should be able to:

- ☐ Understand when and why to use the Bonferroni correction when testing pairs
- ☐ Determine which pairs of groups differ given grouped sample statistics and the output of ANOVA

Chapter 5: Students should be able to:

- ☐ Identify when a particular slope or association in a linear regression is statistically significant.
- ☐ Construct a confidence interval for a slope or intercept value of a linear model given output of a regression model from R.

Chapter 6: Students should be able to:

- ☐ Optimize a linear model using either backward or forward methods
- ☐ Optimize a linear model using either p-values or adj R^2 , and know why they might want to use one over the other.
- ☐ Relate odds to probability and vice versa
- ☐ Interpret the output of a logistic regression summary from R to predict the probability of a categorical response variable given explanatory variables