ENS 495 Fall 2017
Problem Set: Types of Models & ANOVA (Ch 9, 12, 15, 17)

Name: _____

Discussion among students is encouraged but all answers must be written in your own words. Points will be deducted if you answers are identical to other students.

Chapter 9: Contingency analysis: associations between categorical variables

Termites

Ch 9	NEW	How is the data for this question organized:_____ _____	
21	NEW	What is the response variable? _____	
pg	NEW	What is the predictor variable? _____	
264	NEW	What type of data is the response variable? _____	
	NEW	What type of data is the predictor variables? _____	
	NEW	How many groups are there in the predictor variable? _____	

Genotypes at codon 129

Ch 9	new	How is the data for this question organized:_____ _____
pg	new	The predictor variable is "age". How many groups are there? _____
267	new	The predictor variable is "genotype". How many groups are there? _____
	new	If "age" was given as a number (eg 28 years old) what type of variable would it be? _____
	new	What if the values for the MM and MV genotypes were combined so that the response variable had 2 groups, M_ and VV (where _ = M or V). If we treat age as a real number (not justold vs young) and use this new response variable (M_ vs VV), what type of regression would we use? (this was first mentioned on Wed 10/15 and followed up on 10/27; also discussed in Ch. 17.9) _____ regression
	new	Explain when this type of regression is used:

From "Review Problems" after chapter 9

MathWorld Web Page (page 272)

Rev Prob 14		Explain why this statement is false:

Problem Set: Chapter 12: Comparing 2 means (t-tests)

Spinocerebellar ataxia

33	**new**	**What type of error bars are these? _____**
pg 365	**b**	Read section 12.6 (pg 346-347) to answer this question Explain why it is possible to predict the outcome of a statistical test based on this graph, and what is that outcome? State in terms of an approximate p value (p>0.05, p = 0.05, p<0.05)
		What term do I use to describe the difference between the 2 means? **_____ _____**
	new	**What type of test would you use: _____**
	new	Redraw the graph in this box graph so that the opposite conclusion would be reached

In the scatter plot to the right, what type of variables is on…

x axis: Numeric / Numeric count / Factor / Other

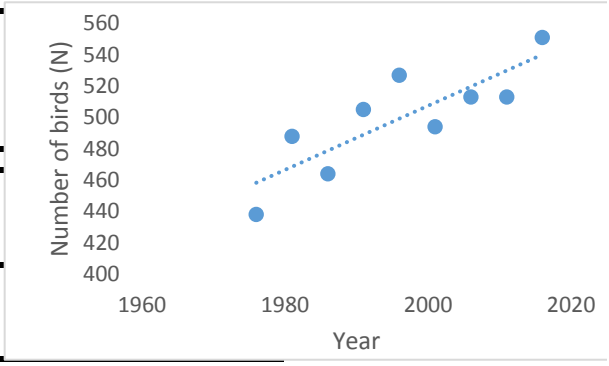
y axis: Numeric / Numeric count / Factor / Other

What type of plot is this?

_____

What type of method would you use to analyze these data?

_____



The following statement has a minor mistake, but it drives me nuts. What isi t?

"There was a significant differene between the control and the group that received the anti-malarial treatment (t = 2.43432, p = 0.0034243, df = 16, difference = 13.34123, CI = 10.012 - 15.3434)"

What is the miskate? _____--

In the plot plot with error bars to the right . . .

x axis: Numeric / Numeric count / Factor / Other

y axis: Numeric / Numeric count / Factor / Other

What type of method would you use to analyze these data?

_____

Using the confidence intervals to estimate whether the there is a significant difference between….

Control vs. Nitrogen? Not significant / Significant

Control vs. Phosphorus? Not significant / Significant

Nitrogren vs. Phosphorus? Not significant / Significant

What is the typical threshold for "significance" _____