Biology 4605 / 7220 Name _____
Quiz #11a 27 November 2007 (Quiz9 29Nov 2000)

1. The relation of a response to an explanatory variable can be quantified in categories (categorical explanatory variable) or as a continuous function (explanatory variable on a ratio type of scale). For the following analyses, list the number of categorical explanatory variables, the number of ratio-scale explanatory variables, and the number of interaction terms.

	Categorical	Ratio-scale	Interaction
ANCOVA.	_____	_____	_____
Species diversity in logged and unlogged plots of tropical rain forest.	_____	_____	_____
Multiple regression.	_____	_____	_____
Infant mortality in 4 countries, controlled for income and number of people per hospital.	_____	_____	_____
Paired t-test.	_____	_____	_____
Analysis of parasite load in 4 species of fish, controlled for body size.	_____	_____	_____
Goodness of fit of recapture numbers to expected numbers for release of 10, 5, 5 caribou respectively in 3 herds of caribou.	_____	_____	_____

2a. In the caribou example, compute the expected <u>proportion</u> recaptured from each herd, assuming equal probability of recapture in all three herds.

2b. Compute the expected <u>number</u> of recaptures in each herd if a total of 8 caribou were recaptured from the 20 released.

2c. The observed number of recaptures were 4, 3, and 1 caribou from the 3 herds. Write a model to test the goodness of fit of observed to expected number of recaptures.
(Give names to symbols in the model).