Biology 4605/7220   Name_____

6 November 2007   Quiz 8a

(A) Define variables in a tabular format, as follows.

   name   symbol   scale

   scales: nominal (=categorical), ordinal, or cardinal
   cardinal = interval _or_ ratio scale.

(B) Using the symbols, write a general linear model relating the response variable
    to explanatory variable(s) and interaction terms (if appropriate).

(C) Complete the first two columns of the ANOVA table   source df

(D) State the name of the analysis, from the following list.
        t-test, one-way ANOVA, two-way ANOVA, three-way ANOVA
        paired comparisons, randomized blocks,
        hierarchical (nested) ANOVA
        regression, multiple regression,
        ANCOVA (at least 1 nominal and at least 1 cardinal scale explanatory variable)
        none of the above.

1. Simpson *et al* (1960, *Quantitative Zoology*) reported earlier data (Howard 1927) on the
value of the ratio of distal width to length in the ulna of:
        -a fossil turkey *Parapavo californicus* (sample size = 133)
        -an allied living species *Meleagris gallopavo* (sample size = 29)
Only the ratio was reported, not the ulna widths or lengths.

                                                                    A=6 B=2 C=6 D=1

A. name   symbol   scale   C.   source   df

B. _____ = _____ + ϵ

D.

1