

1. Smith *et al* conducted a study (*Research Quarterly for Exercise and Sport*) to determine if static and ballistic stretching would induce significant amounts of delayed onset muscle soreness (DOMS). Twenty males were assigned randomly to two stretching groups, such that there were 10 in each group. Subjective ratings of DOMS were recorded once before stretching, then once each day for 5 days.

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

<u>name</u>	<u>symbol</u>	<u>scale</u>
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scale = nominal, 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, repeated measures  
hierarchical (nested) ANOVA  
regression, multiple regression,  
1-way ANCOVA (= 1 nominal and 1 cardinal scale explanatory variable)  
2-way ANCOVA (= 2 nominal and 1 cardinal scale explanatory variable)  
none of the above.