

Assignment _____

Problem # _____

Fill in each blank; write "NA" for questions that are not applicable. (*all or none credit)

A. Justify test used [2].

1. *What are the variables? [.2] _____
2. *What is the respective measurement scale of each variable? [.2] _____
3. Is the question about differences or relationships? [.2] _____
 - a. If a difference question, does it concern means, variances, or frequencies? [.2] _____
 - b. If the difference question concerns means, are the data dependent or independent? [.2] _____
 - c. If a relationship question, does it concern variables or frequencies? [.2] _____
4. To determine if a parametric test can be used, ask these questions:
 - a. If you think the appropriate test is a parametric test of differences in means,
 - *are the residuals/variables/**each** group (circle) normally distributed? [.2] Y/N _____; probs _____
 - *are the variances homogeneous? [.2] Y/N _____; prob. _____
 - b. If you think the appropriate test is a parametric test of differences in variances,
 - *is **each** group normally distributed? [.2] Y/N _____; probs. _____
 - c. If you think the appropriate test is a parametric test of relationships between variables,
 - *are the residuals/**each** variable (circle) normally distributed? [.2] Y/N _____; probs _____

B. State null hypothesis(es) [2]. H_0 : _____
 (variables **must** match answers in A1)

C. What is the most appropriate test? [1] _____
 (an incorrect answer may limit further points)

D. Execute test(s) and identify and state value of **each** test statistic [2]. _____
 (an incorrect answer will limit further points)

E. State probability of **each** test statistic [1]. _____

F. State reject or cannot reject for **each** null hypothesis [1]. _____

G. Concisely state a biological conclusion for **each** test [1].