One Way ANOVA

LAB

Using the Animal Genome Size Database found at <http://www.genomesize.com/> select data on the genome size (measured in picograms of DNA per haploid cell or c value) of crustaceans. The cause of variation in genome size has been a puzzle for a long time; use these data to answer the biological question of whether some families of crustaceans have different genome sizes than others. Export to excel and group by class. Test the assumptions and run a one way anova to look for differences amongst families.

1. *Enter the results of your assumption tests here:*
2. *Enter your results in the table below:*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | sum ofsquares | d.f. | meansquare | Fs | P value |
| between groups |  |  |  |  |  |
| within groups |  |  |  |  |  |
| total |  |  |  |  |  |

1. *Both formally and in your own words, write the results of the F test analyses?*
2. *If necessary, what are the results of the post-hoc analyses?*
3. *Export the MAMMALS data from* [*http://www.genomesize.com/*](http://www.genomesize.com/) *and write your own hypothesis that can be answered with an ANOVA design. Don’t forget to check your assumptions. Record all findings (including interpretations) below.*