

More ANOVA Exercises and Homework
STT 422: Summer, 2004
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Exercises

1. Exercise 13.24 (a,b,c)
2. Exercise 13.13
3. Exercise 13.5
4. Exercise 13.7 (a,b)
5. This exercise will use the data on vitamin content of bread from Exercise 12.11 in the text. This is a one-way ANOVA with five levels of the factor “time after baking.” We’ll number the levels in time order, i.e., Level 1 is “Immediately after baking,” Level 2 is “One day after baking,” etc. For each of the parts below, use the pooled estimator of σ , namely $\sqrt{\text{MSE}}$. Do all of the following by hand. (You may use SAS to compute the quantities that go into the confidence intervals, e.g., the sample means, the t percentiles, the MSE, etc., but should compute the confidence intervals by hand instead of letting SAS do it automatically.)
 - (a) Compute a 90% confidence interval for μ_3 , the mean Vitamin C content three days after baking.
 - (b) Use the Bonferroni procedure to compute simultaneous 90% confidence intervals for $\mu_1, \mu_2, \mu_3, \mu_4, \mu_5$.
 - (c) Compute a 99% confidence interval for $\mu_1 - \mu_2$.
 - (d) Use the Bonferroni procedure to compute 99% simultaneous confidence intervals for $\mu_1 - \mu_i, i = 2, \dots, 5$.

Homework to be collected on Monday, June 28

Note that the due date is Monday, not Friday. Write up and turn in Exercises 13.24 (a,b,c), 13.13, and the exercise on Bonferroni confidence intervals above. Remember that you can turn in one assignment per team. Just remember to put all team members’ names on the assignment.