

Homework 10b - Chapter 11 Regression & Correlation (Montgomery & Runger, 5ed)

These problems are the same as the problems for Homework #11a.

Create an ANOVA Table to determine whether or not there is significant correlation.

Note: Although the ANOVA Table uses an F test as the criterion, your conclusions should be the same as your conclusions for Homework #11a. Based on our limited experience with the ANOVA Table, you would still need to use the techniques from Homework #11a to calculate B0 & B1.

1. Use the numbered textbook problems only as references to help add meaning to the data.
2. Do NOT solve the problems as stated in the textbook.
3. Use an ANOVA Table to determine whether or not there is significant correlation.

Source	#11-6	#11-8	#11-11
Sum of Squares Regression	385.2	2289.1	1,522,819
Sum of Squares Total	651.4	3059.2	1,699,421

Answers: The ANOVA Tables shown below are computer software generated results.

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Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	F Critical Value
Regression	1	385.17664	385.177	27.483	4.38
Error	19	266.23574	14.012		
Total	20	651.41238			

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Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	F Critical Value
Regression	1	2289.0680	2289.07	53.5015	4.41
Error	18	770.1320	42.79		
Total	19	3059.2000			

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Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio	F Critical Value
Regression	1	1522819.1	1522819	155.2121	4.41
Error	18	176601.8	9811		
Total	19	1699420.9			