



**THE GEORGE
WASHINGTON
UNIVERSITY**
WASHINGTON, DC

**ANOVA
DATA ANALYSIS PROJECT
EMSE 4765/6765
SPRING 2025**

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Perform the data analyses and answer the questions below in a data analysis report no later than **May 6th, 2025**. You may not work together on this assignment and you should perform your analysis and write the report on your own.

Please provide me with your electronic files uploaded on BLACKBOARD and a HARD COPY OF YOUR WRITTEN REPORT detailing your analysis steps and conclusions.

A sample format of report is available at:
<https://www2.seas.gwu.edu/~dorpjr/EMSE4765/Project%20Files.html>

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An experiment was conducted to determine whether additives increase the adhesiveness of rubber products. Sixteen products were made with the new additive and another 16 without the new additive. The observed adhesiveness was as recorded below.

	Temperature (°C)			
	50	60	70	80
Without Additive	2.3	3.4	3.8	3.9
	2.9	3.7	3.9	3.2
	3.1	3.6	4.1	3.0
	3.2	3.2	3.8	2.7
With Additive	4.3	3.8	3.9	3.5
	3.9	3.8	4.0	3.6
	3.9	3.9	3.7	3.8
	4.2	3.5	3.6	3.9

Perform an analysis of variance to test for significant main and interaction effects.

- Perform an Analysis of Variance on the data above. The data is provided in column format in the spreadsheets "Data_ANOVA_Project_2025.xlsx"
- Perform a diagnostic analysis of the Analysis of Variance under a.
- Please state your conclusions.