***ANOVA: You try it!***

For each of the two examples below, list:

* Your null and alternate hypothesis
* Your critical value
* Your test statistic and final conclusion.

1. A psychology professor was testing how room temperature affects test taking ability. She took 15 random subjects and divided them into three groups. They were then placed into rooms at 50, 60, and 70 degrees Fahrenheit and given a statistics test with 10 items. The scores are below. Manually compute ANOVA to test whether the test scores are equal.

|  |  |  |
| --- | --- | --- |
| 50 degrees | 60 degrees | 70 degrees |
| 3 | 4 | 9 |
| 1 | 3 | 5 |
| 5 | 7 | 7 |
| 6 | 4 | 4 |
| 2 | 3 | 2 |

MS­b = SSb / dfb MSw = SSw / dfw

dfB = Number of groups – 1

dfW = Total observations - Number of groups

F= MS­b / MSw