Matplotlib Homework – Observations and Insights

1. Campomulin and Ramicane seem to have consistently lower tumor volume than Infubinol and Ceftamin. Further, Campomulin and Ramicane seem to have lower tumor volumes than all other cancer treatments. Based on the mean, these are the most likely treatments to work.
   1. Mouse z578 had a continuing reduction of tumor volume over the course of the study. This is an individual example of evidence that points to drug treatment reducing cancer volume over time.
2. The larger the mouse, the larger the volume. It’s possible that larger mice were selected for different treatments, causing for skew concerns, given that it is somewhat correlated with a correlation of .53
3. The number of rats for each drug was uneven. This can lead to concerns of sample size differences

Looking Forward

1. We may want to consider mapping a plot of each drug over time to show if tumor sizes increased or decreased. Then we could tell in comparison to the placebo if the drugs are effective or if the randomly selected mice happened to have smaller tumors
2. We may want to consider the weight of the mouse as a relevant factor when considering sample sizes. Larger mice tend to have larger tumors. This may skew the results if weight isn’t controlled.