

# Pymaceuticals

As Chief Data Analyst for Pymaceuticals, Inc, I've been given access to the complete data from the firm's most recent animal study. This data included drug-based anti-cancer pharmaceuticals. In the study, there were a total of 250 mice that were treated through a variety of drug regimens over the course of 45 days. Their physiological responses were monitored over the course of that time and analyzed. The four treatments (Capomulin, Infubinol, Ketapril, and Placebo) were compared to see which one had the most favorable result.

## Observable Trends

1. Tumor Response to Treatment - In the Tumor Response to treatment the data shows that Capomulin has the best result in shrinking the tumor. Every other medication shows the tumor not decreasing in size. The volume of the tumor grew at the same rate with the other drugs.
2. Metastatic Spread During Treatment - In this graph the data shows that all the tumors had the same rate of metastatic spread regardless of the drug that was tested for. The only difference shown in this graph is that Capomulin shows the slowest metastatic spread compared to the Placebo who had the fastest.
3. Survival During Treatment - In this graph it shows that the mice that are taking Capomulin have survived 80% the entirety of the trial. The rate of Infubinol dropped significantly. For the other drugs listed they were all dropped all the way until 30 days.