# Analysis

**Capomulin and Ramicane Regimens Show Lower Tumor Volumes**:

* From the summary statistics and box plots, it is evident that Capomulin and Ramicane result in lower tumor volumes compared to other regimens like Infubinol and Ceftamin. This suggests that these regimens may be more effective in reducing tumor growth.

**Strong Positive Correlation Between Mouse Weight and Tumor Volume**:

* The scatter plot and linear regression analysis reveal a strong positive correlation (r=0.84r = 0.84r=0.84) between mouse weight and average tumor volume for the Capomulin regimen. Heavier mice tend to have larger tumor volumes, which might indicate weight as a factor influencing tumor growth.

**Potential Outliers in Infubinol Regimen**:

* The box plot and IQR analysis highlight a potential outlier in the Infubinol regimen, where one mouse had an unusually low tumor volume. This suggests that while the regimen may be effective for some mice, its results are less consistent compared to Capomulin or Ramicane.