HW03  
  
The average cluster prediction method is the most accurate of the three methods tested, with the lowest average difference magnitude. Neighbor Prediction is the least accurate method to predict future data, the Average Cluster Prediction would be the most promising.  
  
**Neighbor Prediction**:

The model uses the nearest neighbor in the training set (based on the given features) to predict the 2022 citation count for the test set.

On average, the predictions deviate by approximately 636.85 from the actual values.

**Centroid Prediction**:

The model uses the distance to the centroid of the closest cluster as a means to predict the 2022 citation count.

On average, predictions are approximately 365.80 units away from the actual values.

**Average Cluster Prediction**:

For every point in the test set, the model predicts its 2022 citation count as the average of the 2022 citation counts of all points in the closest cluster from the training set.

Predictions, on average, are about 295.04 units away from the real values.