24-787: Machine Learning and Artificial Intelligence for Engineers

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Homework 11

Due: April 13, 2024

**Concept Questions:**

Problem 1

Q1: 5 points for Cluster Center 1, and 4 points for Cluster Center 2.

Q2: 2. Left, Right.

Problem 2

The natural number of clusters for this dataset is around 10-11. We can observe an elbow point where increasing number of clusters more is not informative or meaningful. The decrease in sum of squared distances becomes relatively constant.