1. Given the following 6 points with 2 attributes:

A: (1, 3), B: (2, 1), C: (2, 2), D: (3, 5), E: (4, 4), F: (3, 3).

a) We need to group all 6 points into three clusters. Suppose initially we assign B, D and E as the prototype of the first, second and third cluster respectively. Use the k-Means algorithm to find the three clusters and their respective centroids after the first iteration.

b) If the initial class label of A, D and E is "C1", the initial class label of B, C and F is "C2", use the k-Means algorithm to find the two clusters and their respective centroids until convergence.

2. We consider the following 6 data points:

p1: (5, 9), p2: (5, 8), p3: (3, 8), p4: (1, 2), p5: (2, 1), p6: (4, 4).

The distance function is Euclidean distance.

Find the clusters in this data set based on DBSCAN, with Eps=2 and Minpts=3. Identify the core points, border points and noise points.