Max-Spacing k-Clustering (Single-Link Clustering)

1. Consider the following set of points in a two-dimensional plane:

Note: you could take a ruler to measure the pairwise distance among the points, but you shouldn’t need to since the grid is provided. Hint: a shortcut would be to look at the largest gaps between nodes.

   a. What clusters are discovered by max-spacing k-clustering algorithm for k=3? Draw circles around the clusters in the image above.

   b. Which two nodes give the spacing, S, of the clustering?

2. Propose an exchange for an exchange argument correctness proof of max-spacing k-clustering.