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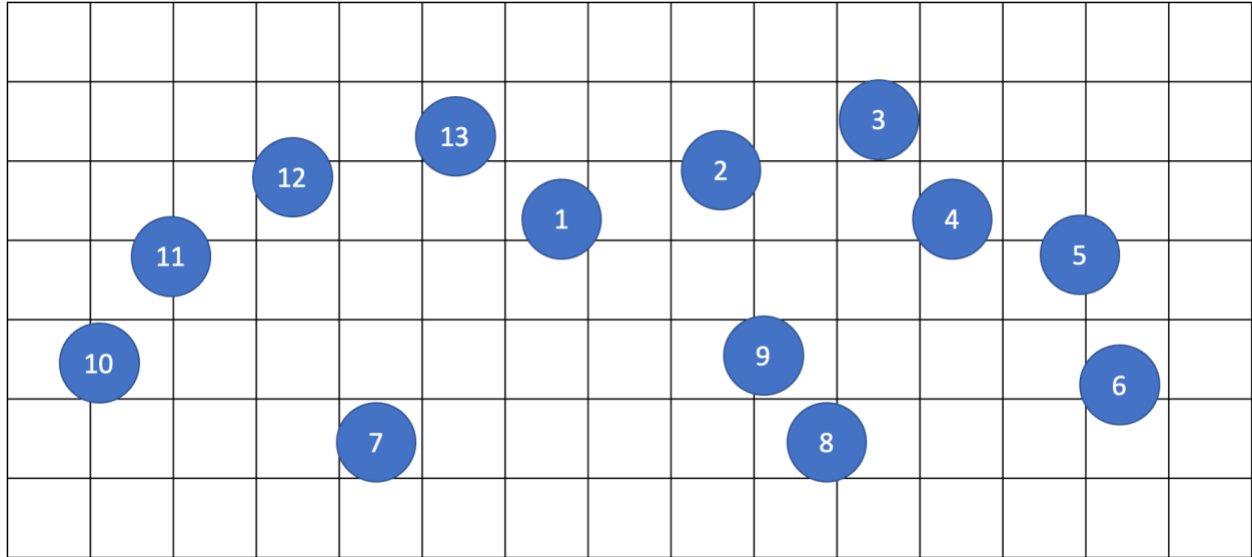
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Max-Spacing k-Clustering (Single-Link Clustering)

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.