

## k-Means Clustering Homework

For this homework you will work through a k-Means clustering example.

For the data below, show the centroid values and which instances are closest to each centroid after centroid calculation for two iterations of k-means using Manhattan distance.

By 2 iterations we mean 2 centroid changes after the initial centroids.

Assume  $k = 2$  and that the first two instances are the initial centroids.

<i>Pattern</i>	<i>x</i>	<i>y</i>
<i>a</i>	0.9	0.8
<i>b</i>	0.2	0.2
<i>c</i>	0.7	0.6
<i>d</i>	-0.1	-0.6
<i>e</i>	0.5	0.5