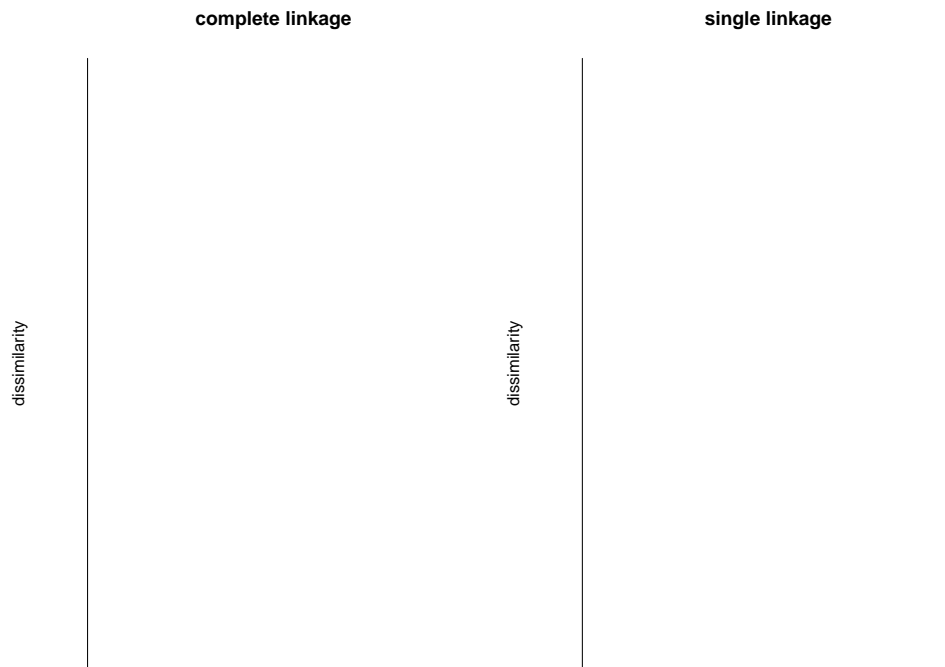


Hierarchical Clustering

Suppose that we have four observations in p dimensions for which we compute the following dissimilarity matrix.

	A	B	C	D
A	0	30	40	70
B	30	0	50	80
C	40	50	0	45
D	70	80	45	0

1. Sketch two dendrogram corresponding to the two different choices of linkage. Indicate the height of each fusion as well as the observation corresponding to each leaf.



2. If we cut the complete linkage dendrogram such that there are two clusters, what is the cluster membership?
3. What is the membership if we cut the single linkage dendrogram to create two clusters?