

HW5_Myunghee_ID_2446752777

3. ISLR 10.7.2

Dissimilarity	Observations
0.3	1 and 2
0.4	1 and 3
0.45	3 and 4
0.5	2 and 3
0.7	1 and 4
0.8	2 and 4

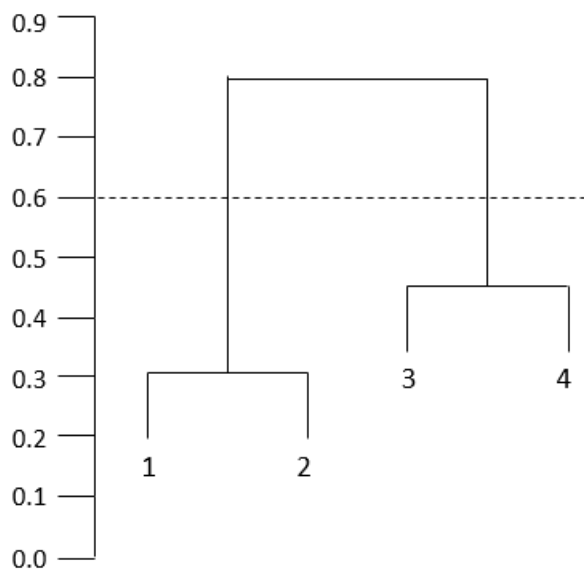
(a) complete linkage

1) The smallest dissimilarity is **0.3** between observations **1 and 2**, so they are clustered.

2) The dissimilarity between observation 3 and a cluster with observations 1 and 2 is 0.5.

Thus, the second smallest dissimilarity is **0.45** between observations **3 and 4**, so they are clustered.

3) The dissimilarity between the cluster with observations 1 and 2 and another cluster with observations 3 and 4 is **0.8**.



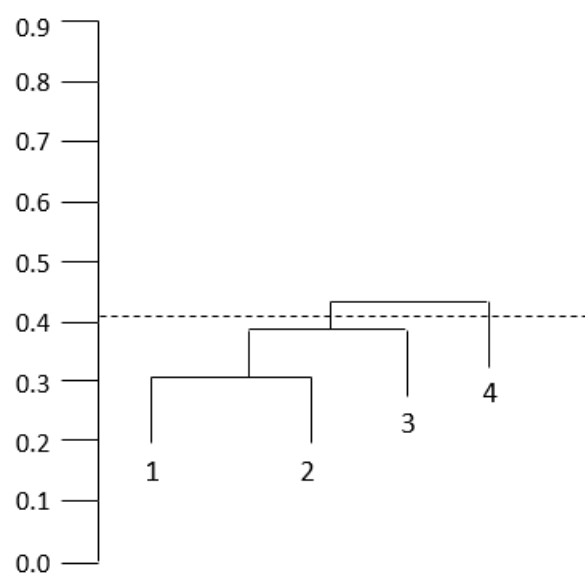
(c) cluster 1: observations 1 and 2 / cluster 2: observations 3 and 4

(b) single linkage

1) The smallest dissimilarity is 0.3 between observations 1 and 2, so they are clustered.

2) The dissimilarity between observation 3 and the cluster with observations 1 and 2 is 0.4, so they are clustered.

3) The dissimilarity between observation 4 and the cluster with observations 1, 2 and 3 is 0.45.



(d) cluster 1: observations 1, 2 and 3 / cluster 2: observation 4

(e)

