

Final

② Hierarchical Clustering -

→ (Agglomerative Clusters)

Sr #	Weight	Height
A	1	1
B	1.5	1.5
C	5	5
D	3	4
E	4	4
F	3	3.5

Min Distance

Single Linkage

$$\text{Distance (D)} = \sqrt{(x - x_0)^2 + (y - y_0)^2}$$

	A	B	C	D	E	F
A	0.00	0.71	5.66	3.61	4.24	3.20
B	0.71	0.00	4.95	2.92	3.54	2.50
C	5.66	4.95	0.00	2.24	1.41	2.50
D	3.61	2.92	2.24	0.00	1.00	0.50
E	4.24	3.54	1.41	1.00	0.00	1.12
F	3.20	2.50	2.50	0.50	1.12	0.00

Q.12

Q.13

	A	B	C	D, F	E
A	0.00	0.71	5.66	3.20	4.24
B	0.71	0.00	4.95	2.50	3.54
C	5.66	4.95	0.00	2.24	1.41
(D, F)	3.20	2.50	2.24	0.00	1.00
E	4.24	3.54	1.41	1.00	0.00

	A, B	C	D, F	E
(A, B)	0.00	4.95	2.50	3.54
C	4.95	0.00	2.24	1.41
(D, F)	2.50	2.24	0.00	1.00
E	3.54	1.41	1.00	0.00

	A, B	C	D, F, E
(A, B)	0.00	4.95	2.50
C	4.95	0.00	1.41
((D, F), E)	2.50	1.41	0.00

	A, B	$((D, F)E), C$
A, B	0.00	2.50
$((D, F)E), C$	2.50	0.00

Dendrogram

