

# clustering

AP 21135010003

Sample	1	2	3	4	5
x	4	8	15	24	24
y	4	4	8	4	12

① single linkage algorithm

Item	1	2	3	4	5
1	0	4	11.2	20	21.5
2		0	8.06	16	17.8
3			0	9.84	9.84
4				0	8
5					0

pair (1,2) →

In this, after each step.  
find the closet pair  
clusters & merge them;

single linkage

	(1,2)	3	4	5
(1,2)	0	8.06	16	17.8
3		0	9.8	9.8
4			0	8
5				0

complete linkage

	(1,2)	3	4	5
(1,2)	0	11.2	20	21.5
3		0	9.8	9.8
4			0	8
5				0



→ pair (4,5)

	1,2	3	(4,5)
1,2	0	8-0.6	1.6
3		0	9.8
(4,5)			0

	(1,2)	3	(4,5)
(1,2)	0	8-0.6	21.5
3		0	9.8
(4,5)			0

pair (1,2) & 3

	(1,2,3)	(4,5)
(1,2,3)	0	9.8
(4,5)		0

	(1,2,3)	(4,5)
(1,2,3)	0	21.5
(4,5)		0

Dendrogram

