

Subject	A	B
1	1.5	1.0
2	1.0	2.0
3	2.0	3.5
4	5.0	6.0
5	3.5	4.0
6	4.5	5.0
7	2.5	4.5

1. Calculate Centroid

Subject	A	B	Centroid
1	1.5	1.0	1.25
2	1.0	2.0	1.5
3	2.0	3.5	2.75
4	5.0	6.0	5.5
5	3.5	4.0	3.75
6	4.5	5.0	4.75
7	2.5	4.5	3.5

2. Find Min & Max Centroid

Min = 1.25 & Max = 5.5

3. Calculate the distance of each subject and the 2 centroids

Subject	A	B	Centroid	Distance from 1.25	Distance from 5.5
1	1.5	1.0	1.25	0	4.25
2	1.0	2.0	1.5	0.25	4
3	2.0	3.5	2.75	1.50	2.75
4	5.0	6.0	5.5	4.25	0
5	3.5	4.0	3.75	2.5	1.75
6	4.5	5.0	4.75	3.5	0.75
7	2.5	4.5	3.5	2.25	2

Mean Vector

For A, $(1.5 + 1.0 + 2.0) / 3 = 1.5$

For B, $(1.0 + 2.0 + 3.5) / 3 = 2.1$

For A, $(5.0 + 3.5 + 4.5 + 2.5) / 4 = 3.8$

For B, $(6.0 + 4.0 + 5.0 + 4.5) / 4 = 4.8$

4. Check the result of the new clustering result

	Individual	Mean Vector (centroid)
Cluster 1	1, 2, 3	(1.5, 2.1)
Cluster 2	4, 5, 6, 7	(3.8, 4.8)

5. Compare each individual's distance to the 2 clusters

Individual	Distance to mean (centroid) of Cluster 1	Distance to mean (centroid) of Cluster 2
1	1.1	4.4
2	0.5	4.0
3	1.5	2.2
4	5.2	1.6
5	2.7	0.8
6	4.1	0.7
7	2.6	1.3

There are no relocations Required.