Student	Marks	Groups
Ram	45	A
Gita	47	A
Ramesh	51	A
Hema	43	A
Rekha	50	A
Sham	81	B
Sita	79	B
Suresh	76	B
Jaya	72	B
Sushma	67	B

Ram	0			
Sham	36	0		
Sita	34	2	0	
Gita	2	34	32	0
Ramesh	6	30	28	4
Suresh	31	5	3	29
Hema	2	38	36	4
Rekha	5	31	29	3
Jaya	27	9	7	25
Sushma	22	14	12	20
	Ram	Sham	Sita	Gita

Minimum Distance   1

Group 1   (Ramesh, Rekha)

			Distance Matrix 1		
0					
25	0				
8	33	0			
1	26	7	0		
21	4	29	22	0	
16	9	24	17	5	0
Ramesh	Suresh	Hema	Rekha	Jaya	Sushma

Ram	0
Sham	36
Sita	34
Gita	2
(Ramesh, Rekha)	6
Suresh	31
Hema	2
Jaya	27
Sushma	22
	Ram

Minimum Distance

Group 1   (Ra

Group 2

			Distance Matrix 2				
0							
2	0						
34	32	0					
30	28	4	0				
5	3	29	25	0			
38	36	4	8	33	0		
9	7	25	21	4	29	0	
14	12	20	16	9	24	5	0
Sham	Sita	Gita	(Ramesh, Rekha)	Suresh	Hema	Jaya	Sushma

2

ımesh, Rekha)
(Ram, Gita)

				Distance Matrix 3		
(Ram, Gita)	0					
Sham	36	0				
Sita	34	2	0			
(Ramesh, Rekha)	6	30	28	0		
Suresh	31	5	3	25	0	
Hema	2	38	36	8	33	0
Jaya	27	9	7	21	4	29
Sushma	22	14	12	16	9	24
	(Ram, Gita)	Sham	Sita	(Ramesh, Rekha)	Suresh	Hema

Minimum Distance   2

Group 1   (Ramesh, Rekha)
Group 2   (Ram, Gita)
Group 3   (Hema, (Ram, Gita))
Group 4   (Sham, Sita)

0		
5	0	
Jaya	Sushma	

(Hema, (Ram, Gita))	0	
(Sham, Sita)	36	0
(Ramesh, Rekha)	6	30
Suresh	31	5
Jaya	27	9
Sushma	22	14
	(Hema, (Ram, Gita))	(Sham, Sita)

Minimum Distance	4
Group 1	(Ramesh, Rekha)
Group 2	(Ram, Gita)
Group 3	(Hema, (Ram, Gita
Group 4	(Sham, Sita)
Group 5	(Suresh, Jaya)

Distance Matrix 4			
0			
25	0		
21	4	0	
16	9	5	0
(Ramesh, Rekha)	Suresh	Jaya	Sushma

(Hema, (Ram, Gita))	0
(Sham, Sita)	36
(Ramesh, Rekha)	6
(Suresh, Jaya)	31
Sushma	22
	(Hema, (Ram, Gita))

Minimum Distance

Group 1   (
Group 2
Group 3   (H
Group 4
Group 5
Group 6   ((Sure

I

))

		Distance Matrix 5	
0			
30	0		
5	25	0	
14	16	9	0
(Sham, Sita)	(Ramesh, Rekha)	(Suresh, Jaya)	Sushma

(Hema, (Ram, Gita))
((Suresh, Jaya), (Sham, Sita))
(Ramesh, Rekha)
Sushma

5

Ramesh, Rekha)
(Ram, Gita)
ema, (Ram, Gita))
(Sham, Sita)
(Suresh, Jaya)
sh, Jaya), (Sham, Sita))

Minimum Distance

Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7

		Distance Matrix 6	
0			
36	0		
6	30	0	
22	14	16	0
(Hema, (Ram, Gita))	((Suresh, Jaya), (Sham, Sita))	(Ramesh, Rekha)	Sushma

6

(Ramesh, Rekha)
(Ram, Gita)
(Hema, (Ram, Gita))
(Sham, Sita)
(Suresh, Jaya)
((Suresh, Jaya), (Sham, Sita))
((Ramesh, Rekha), (Hema, (Ram, Gita)))

((Ramesh, Rekha), (Hema, (Ram, Gita)))	0
((Suresh, Jaya), (Sham, Sita))	36
Sushma	22
	((Ramesh, Rekha), (Hema, (Ram, Gita)))

Minimum Distance

Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8

Distance Matrix 7	
0	
14	0
((Suresh, Jaya), (Sham, Sita))	Sushma

14

(Ramesh, Rekha)
(Ram, Gita)
(Hema, (Ram, Gita))
(Sham, Sita)
(Suresh, Jaya)
((Suresh, Jaya), (Sham, Sita))
((Ramesh, Rekha), (Hema, (Ram, Gita)))
(((Suresh, Jaya), (Sham, Sita)), Sushma)

((Ramesh, Rekha), (Hema, (Ram, Gita)))	0
(((Suresh, Jaya), (Sham, Sita)), Sushma)	36
	((Ramesh, Rekha), (Hema, (Ram, Gita)))

Minimum Distance

Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8
Group 9   (((Ramesh, Rekha),

Distance Matrix 8
0

(((Suresh, Jaya), (Sham, Sita)), Sushma)

36

(Ramesh, Rekha)
(Ram, Gita)
(Hema, (Ram, Gita))
(Sham, Sita)
(Suresh, Jaya)
((Suresh, Jaya), (Sham, Sita))
((Ramesh, Rekha), (Hema, (Ram, Gita)))
(((Suresh, Jaya), (Sham, Sita)), Sushma)
(Hema, (Ram, Gita))), (((Suresh, Jaya), (Sham, Sita)), Sushma))

(((Ramesh, Rekha), (Hema, (Ram, Gita))), (((Suresh, Jaya), (Sham, Sita)), Sushma))

Minimum Distance

Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8
Group 9

0

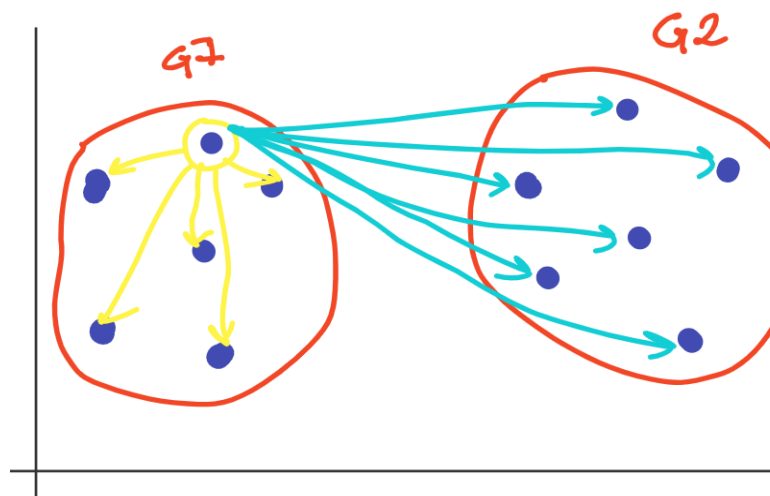(((Ramesh, Rekha), (Hema, (Ram, Gita))), (((Suresh, Jaya), (Sham, Sita)), Sushma))

0

(((Ramesh, Rekha), (Hema, (Ram, Gita))), (((Suresh, Jaya), (Sham, Sita)), Sushma))

(Ramesh, Rekha)
(Ram, Gita)
(Hema, (Ram, Gita))
(Sham, Sita)
(Suresh, Jaya)
((Suresh, Jaya), (Sham, Sita))
((Ramesh, Rekha), (Hema, (Ram, Gita)))
(((Suresh, Jaya), (Sham, Sita)), Sushma)
(((Ramesh, Rekha), (Hema, (Ram, Gita))), (((Suresh, Jaya), (Sham, Sita)), Sushma))
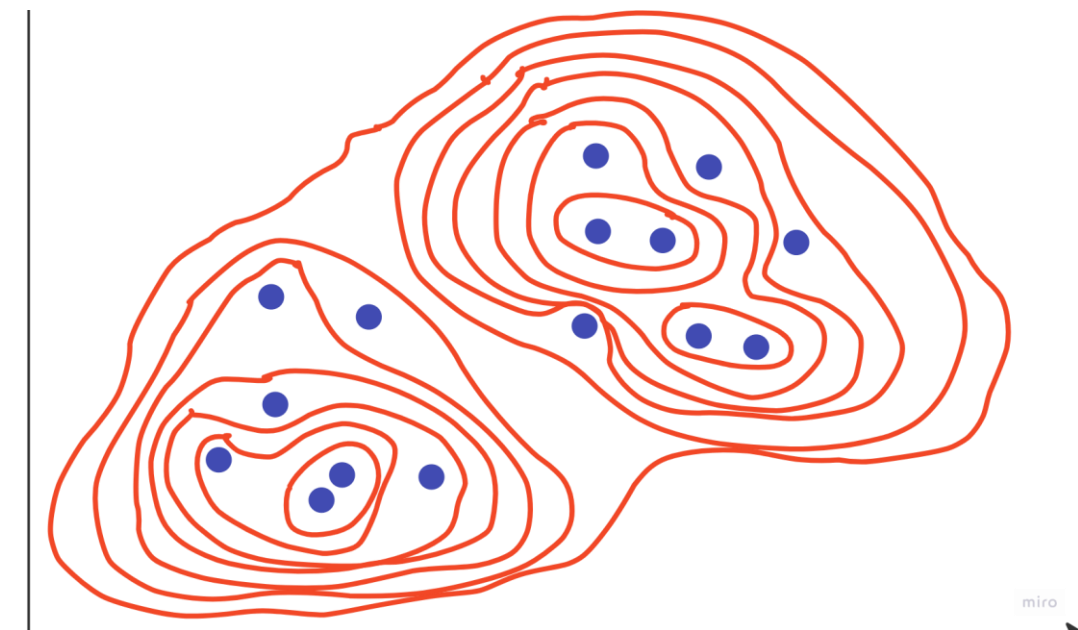
Cohesion (Intra-Cluster Distance) (a) -
Separation (Inter-Cluster Distance) (b) -

$$a = 0.6 \quad b = 0.4 \qquad = \frac{0.4 -}{}$$

$$S.score = \frac{b-a}{max(b,a)}$$

* cohision → a

* seperation → b

$a = 0.4 \quad b = 0.6$

$$\frac{0.6 - 0.4}{0.6} = \frac{0.2}{0.6} = 0.333 \checkmark$$

$$\frac{0.6}{0.6} = \frac{-0.2}{0.6} = -0.333$$

miro