

Starting from the following 9x9 proximity-relation R(0)

R(0)									
	1	0,9	0,7	0,5	0,3	0,3	0,5	0,2	0
	0,9	1	0,9	0,9	0,5	0,5	0,2	0,2	0
	0,7	0,9	1	0,4	0,2	0,2	0,1	0,1	0,9
	0,5	0,9	0,4	1	0,9	0,9	0,1	0,7	0,1
	0,3	0,5	0,2	0,9	1	0,9	0,1	0,9	0,1
	0,3	0,5	0,2	0,9	0,9	1	0,1	0,9	0,1
	0,5	0,2	0,1	0,1	0,1	0,1	1	0,1	0,1
	0,2	0,2	0,1	0,7	0,9	0,9	0,1	1	0,1
	0	0	0,9	0,1	0,1	0,1	0,1	0,1	1

Max-min

$$\mu_R(x, y) = \max_{z \in X} \{ \min \{ \mu_R(x, z), \mu_R(z, y) \} \}$$

R(1)									
	1	0.9	0.7	0.5	0.3	0.3	0.5	0.2	0
	0.9	1	0.9	0.9	0.5	0.5	0.5	0.2	0
	0.7	0.9	1	0.5	0.3	0.3	0.5	0.2	0.9
	0.5	0.9	0.5	1	0.9	0.9	0.5	0.7	0.5
	0.3	0.5	0.3	0.9	1	0.9	0.3	0.9	0.3
	0.3	0.5	0.3	0.9	0.9	1	0.3	0.9	0.3
	0.5	0.5	0.5	0.5	0.3	0.3	1	0.2	0.5
	0.2	0.2	0.2	0.7	0.9	0.9	0.2	1	0.2
	0	0	0.9	0.5	0.3	0.3	0.5	0.2	1

R(2)									
	1	0.9	0.7	0.5	0.3	0.3	0.5	0.2	0
	0.9	1	0.9	0.9	0.5	0.5	0.5	0.2	0
	0.7	0.9	1	0.5	0.3	0.3	0.5	0.2	0.9
	0.5	0.9	0.5	1	0.9	0.9	0.5	0.7	0.5
	0.3	0.5	0.3	0.9	1	0.9	0.3	0.9	0.3
	0.3	0.5	0.3	0.9	0.9	1	0.3	0.9	0.3
	0.5	0.5	0.5	0.5	0.3	0.3	1	0.2	0.5
	0.2	0.2	0.2	0.7	0.9	0.9	0.2	1	0.2
	0	0	0.9	0.5	0.3	0.3	0.5	0.2	1

R(3)...R(n)

R(n)									
	1	0.9	0.7	0.5	0.3	0.3	0.5	0.2	0
	0.9	1	0.9	0.9	0.5	0.5	0.5	0.2	0
	0.7	0.9	1	0.5	0.3	0.3	0.5	0.2	0.9
	0.5	0.9	0.5	1	0.9	0.9	0.5	0.7	0.5
	0.3	0.5	0.3	0.9	1	0.9	0.3	0.9	0.3
	0.3	0.5	0.3	0.9	0.9	1	0.3	0.9	0.3
	0.5	0.5	0.5	0.5	0.3	0.3	1	0.2	0.5
	0.2	0.2	0.2	0.7	0.9	0.9	0.2	1	0.2
	0	0	0.9	0.5	0.3	0.3	0.5	0.2	1

alpha = 0.55	1	2	3	4	5	6	7	8	9
1	0	0.9	0.7	0	0	0	0	0	0
2	0.9	0	0.9	0.9	0	0	0	0	0
3	0.7	0.9	0	0	0	0	0	0	0.9
4	0	0.9	0	0	0.9	0.9	0	0.7	0
5	0	0	0	0.9	0	0.9	0	0.9	0
6	0	0	0	0.9	0.9	0	0	0.9	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0.7	0.9	0.9	0	0	0
9	0	0	0.9	0	0	0	0	0	0

$I = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

$C1 = \{1, 2, 3\}$

$I/C1 = \{4, 5, 6, 7, 8, 9\}$

$C2 = \{4, 5, 6, 8\}$

$I/C2 = \{7, 9\}$

$C3 = \{7\}$

$C4 = \{9\}$

Max-prod

$$\mu_R(x, y) = \max_{z \in X} \{ \mu_R(x, z) \mu_R(z, y) \}$$

R(1)									
	1	0.9	0.81	0.81	0.45	0.45	0.5	0.35	0.63
	0.9	1	0.9	0.9	0.81	0.81	0.5	0.63	0.81
	0.81	0.9	1	0.81	0.45	0.45	0.5	0.35	0.9
	0.81	0.9	0.81	1	0.9	0.9	0.5	0.81	0.5

	0.45	0.81	0.45	0.9	1	0.9	0.45	0.9	0.45
	0.45	0.81	0.45	0.9	0.9	1	0.45	0.9	0.45
	0.5	0.5	0.5	0.5	0.45	0.45	1	0.35	0.5
	0.35	0.63	0.35	0.81	0.9	0.9	0.35	1	0.35
	0.63	0.81	0.9	0.5	0.45	0.45	0.5	0.35	1

R(2)										
	1	0.9	0.81	0.81	0.729	0.729	0.5	0.6561	0.729	
	0.9	1	0.9	0.9	0.81	0.81	0.5	0.729	0.81	
	0.81	0.9	1	0.81	0.729	0.729	0.5	0.6561	0.9	
	0.81	0.9	0.81	1	0.9	0.9	0.5	0.81	0.729	
	0.729	0.81	0.729	0.9	1	0.9	0.45	0.9	0.6561	
	0.729	0.81	0.729	0.9	0.9	1	0.45	0.9	0.6561	
	0.5	0.5	0.5	0.5	0.45	0.45	1	0.405	0.5	
	0.6561	0.729	0.6561	0.81	0.9	0.9	0.405	1	0.5103	
	0.729	0.81	0.9	0.729	0.6561	0.6561	0.5	0.5103	1	

R(3)...R(n)

R(n)										
	1	0.9	0.81	0.81	0.729	0.729	0.5	0.6561	0.729	
	0.9	1	0.9	0.9	0.81	0.81	0.5	0.729	0.81	
	0.81	0.9	1	0.81	0.729	0.729	0.5	0.6561	0.9	
	0.81	0.9	0.81	1	0.9	0.9	0.5	0.81	0.729	
	0.729	0.81	0.729	0.9	1	0.9	0.45	0.9	0.6561	
	0.729	0.81	0.729	0.9	0.9	1	0.45	0.9	0.6561	
	0.5	0.5	0.5	0.5	0.45	0.45	1	0.405	0.5	

	0.6561	0.729	0.6561	0.81	0.9	0.9	0.405	1	0.59049
	0.729	0.81	0.9	0.729	0.6561	0.6561	0.5	0.59049	1

alpha = 0.55	1 	2 	3 	4 	5 	6 	7 	8 	9 
1 	0	0.9	0.81	0.81	0.729	0.729	0	0.6561	0.729
2 	0.9	0	0.9	0.9	0.81	0.81	0	0.729	0.81
3 	0.81	0.9	0	0.81	0.729	0.729	0	0.6561	0.9
4 	0.81	0.9	0.81	0	0.9	0.9	0	0.81	0.729
5 	0.729	0.81	0.729	0.9	0	0.9	0	0.9	0.6561
6 	0.729	0.81	0.729	0.9	0.9	0	0	0.9	0.6561
7 	0	0	0	0	0	0	0	0	0
8 	0.6561	0.729	0.6561	0.81	0.9	0.9	0	0	0.59049
9 	0.729	0.81	0.9	0.729	0.6561	0.6561	0	0.59049	0

I = {1, 2, 3, 4, 5, 6, 7, 8, 9}

C1 = {1, 2, 3, 4, 5, 6, 8, 9}

I / C1 = {7}

C2 = {7}

Max-avg

$$\mu_R(x, y) = \max_{z \in X} \{(\mu_R(x, z) + \mu_R(z, y)) / 2\}$$

R(1)									
	1	0.95	0.905	0.905	0.8645	0.8645	0.75	0.82805	0.8645
	0.95	1	0.95	0.95	0.905	0.905	0.75	0.8645	0.905
	0.905	0.95	1	0.905	0.8645	0.8645	0.75	0.82805	0.95
	0.905	0.95	0.905	1	0.95	0.95	0.75	0.905	0.8645
	0.8645	0.905	0.8645	0.95	1	0.95	0.725	0.95	0.82805

	0.8645	0.905	0.8645	0.95	0.95	1	0.725	0.95	0.82805
	0.75	0.75	0.75	0.75	0.725	0.725	1	0.7025	0.75
	0.82805	0.8645	0.82805	0.905	0.95	0.95	0.7025	1	0.795245
	0.8645	0.905	0.95	0.8645	0.82805	0.82805	0.75	0.795245	1

R(2)									
	1	0.975	0.9525	0.9525	0.93225	0.93225	0.875	0.914025	0.93225
	0.975	1	0.975	0.975	0.9525	0.9525	0.875	0.93225	0.9525
	0.9525	0.975	1	0.9525	0.93225	0.93225	0.875	0.914025	0.975
	0.9525	0.975	0.9525	1	0.975	0.975	0.875	0.9525	0.93225
	0.93225	0.9525	0.93225	0.975	1	0.975	0.8625	0.975	0.914025
	0.93225	0.9525	0.93225	0.975	0.975	1	0.8625	0.975	0.914025
	0.875	0.875	0.875	0.875	0.8625	0.8625	1	0.85125	0.875
	0.914025	0.93225	0.914025	0.9525	0.975	0.975	0.85125	1	0.897622
	0.93225	0.9525	0.975	0.93225	0.914025	0.914025	0.875	0.897622	1

R(3)...R(n)

R(n)									
	1	0.999902	0.999814	0.999814	0.999735	0.999735	0.999512	0.999664	0.999735
	0.999902	1	0.999902	0.999902	0.999814	0.999814	0.999512	0.999735	0.999814
	0.999814	0.999902	1	0.999814	0.999735	0.999735	0.999512	0.999664	0.999902
	0.999814	0.999902	0.999814	1	0.999902	0.999902	0.999512	0.999814	0.999735
	0.999735	0.999814	0.999735	0.999902	1	0.999902	0.999463	0.999902	0.999664
	0.999735	0.999814	0.999735	0.999902	0.999902	1	0.999463	0.999902	0.999664
	0.999512	0.999512	0.999512	0.999512	0.999463	0.999463	1	0.999419	0.999512
	0.999664	0.999735	0.999664	0.999814	0.999902	0.999902	0.999419	1	0.9996
	0.999735	0.999814	0.999902	0.999735	0.999664	0.999664	0.999512	0.9996	1

alpha = 0.9997	1 	2 	3 	4 	5 	6 	7 	8 	9 
1 	0	0.999902	0.999814	0.999814	0.999735	0.999735	0	0	0.999735
2 	0.999902	0	0.999902	0.999902	0.999814	0.999814	0	0.999735	0.999814
3 	0.999814	0.999902	0	0.999814	0.999735	0.999735	0	0	0.999902
4 	0.999814	0.999902	0.999814	0	0.999902	0.999902	0	0.999814	0.999735
5 	0.999735	0.999814	0.999735	0.999902	0	0.999902	0	0.999902	0
6 	0.999735	0.999814	0.999735	0.999902	0.999902	0	0	0.999902	0
7 	0	0	0	0	0	0	0	0	0
8 	0	0.999735	0	0.999814	0.999902	0.999902	0	0	0
9 	0.999735	0.999814	0.999902	0.999735	0	0	0	0	0

$I = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$

$C1 = \{1, 2, 3, 4, 5, 6\}$

$I/C1 = \{7, 8, 9\}$

$C2 = \{7\}$

$C3 = \{8\}$

$C4 = \{9\}$