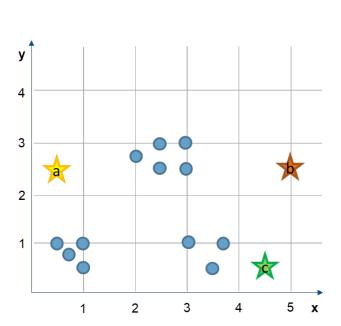
Tutorial Business Analytics

Tutorial 9

Exercise 9.1

Group the data into three clusters applying the k-Means algorithm and the Euclidean distance function.



	Datas	et	Centroids					
p _i	х	у	c _i	х	У			
1	2.5	3		0.5	2.5			
2	3	3		5.0	2.5			
3	2	2.75		4.5	0.5			
4	2.5	2.5						
5	3	2.5						
6	0.5	1						
7	1	1						
8	3	1						
9	3.75	1						
10	0.75	0.75						
11	1	0.5						
12	3.5	0.5						

Exercise 9.2

Given k=2, perform EM algorithm with the following instances.

Instance	1	2	3	4	5	6
Value	0.76	0.86	1.12	3.05	3.51	3.75
			\wedge			
		\				
_	-			•••		-
0	1	2	3	4	5	5 X