chandana chamala-

Q41) {4, 6, 17, 19, 23, 27, 33, 37}

Initial centroids (15, 25, 31)

	15	25	31	cluster
4	-11	-21	-27	centroid 1
6	-9	-19	-25	centroid 1
17	2	-8	-14	centroid 1
19	4	-6	-12	centroid 1
23	8	-2	-8	centroid 2
27	12	2	-4	centroid 2
33	18	8	2	centroid 3
37	22	12	6	centroid 3

cluster/centroid 1: {4, 6, 17, 19}
centroid 2: {23, 27}
centroid 3: {33, 37}

cluster/
centroid 1 : {4, 6, 17, 19}

$$= \frac{4+6+17+19}{4} = 31.75$$

cluster B/ centroid 2 : {23, 27}

$$= \frac{23+27}{2} = 25$$

cluster C/ centroid 3 : {33, 37}

$$= \frac{33+37}{2} = 35$$

1-D Point	Centroids			Clusters
	31.75	25	35	
4	-27.75	-21	-31	Centroid 2
6	-25.75	-19	-29	Centroid 2
17	-14.75	-8	-18	Centroid 2
19	-12.75	-6	-16	centroid 2
23	-8.75	-2	-12	centroid 2
27	-4.75	2	-8	Centroid 2
33	1.25	8	-2	Centroid 1
37	5.25	12	2	centroid 3

Now cluster A = {33}
cluster B = {4, 6, 17, 19, 23, 27}
cluster C = {37}