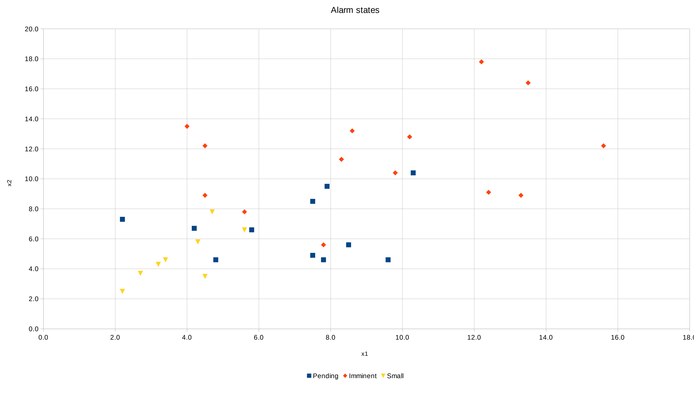
T	X1	X2	State
1	7.5	8.5	Pending
2	2.2	7.3	Pending
3	3.2	4.3	Small
4	4.2	6.7	Pending
5	4.3	5.8	Small
6	4.5	3.5	Small
7	2.2	2.5	Small
8	2.7	3.7	Small
9	4.5	8.9	Imminent
10	8.5	5.6	Pending
11	9.6	4.6	Pending
12	7.5	4.9	Pending
13	4.5	12.2	Imminent
14	4.0	13.5	Imminent
15	8.6	13.2	Imminent
16	10.2	12.8	Imminent
17	12.2	17.8	Imminent
18	13.5	16.4	Imminent
19	15.6	12.2	Imminent
20	10.3	10.4	Pending
21	9.8	10.4	Imminent
22	8.3	11.3	Imminent
23	5.6	7.8	Imminent
24	7.8	5.6	Imminent
25	4.7	7.8	Small
26	7.8	4.6	Pending
27	13.3	8.9	Imminent
28	3.4	4.6	Small
29	5.6	6.6	Small
30	7.9	9.5	Pending
31	5.8	6.6	Pending
32	4.8	4.6	Pending
33	12.4	9.1	Imminent



1

Averages	7.181818	8.248485

2

	X1	X2
X1	1	
X2	0.585109	1

3

R^2	0.342352
Slope	0.628726
Intercept	3.733089

4

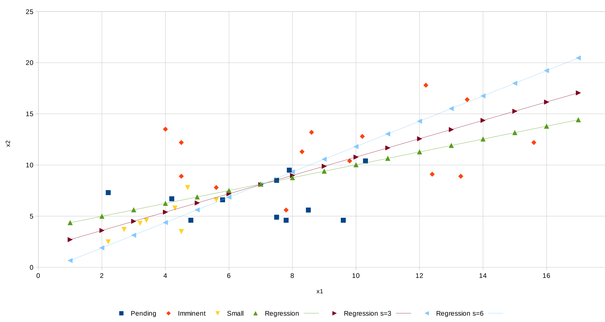
	X1	X2
X1	12.30815	
X2	7.738457	14.21159

5

R^2 Given by linear regression is 0.34, that means that about 32% of X2 results are determined by X1, whereas 68% is up to pure chance.
Correlation factor between X1 & X2 is 58%, which means that about 58% of measurements correlate with eachother.
Therefore I would say that X1 is very bad predictor for X2.

6

Avg s=3	Avg s=6		Corr s=3	Corr s=6
#N/A	#N/A		0.652696	0.743913
4.3	#N/A			
3.2	#N/A		Reg s=3	Reg s=6
3.9	4.316667	R^2	0.426012	0.553407
4.333333	3.433333	Slope	0.896707	1.237765
3.666667	3.516667	Intercept	1.808678	-0.57297
3.133333	3.733333			
3.133333	4.45			
5.233333	5.333333			
7.533333	5.833333			
8.533333	6.216667			
7.2	6.433333			
5.333333	7.116667			
5.7	7.4			
7.6	7.833333			
10.33333	8.833333			
11.96667	10.68333			
13.76667	11.73333			
13.13333	11.93333			
11.9	11.61667			
9.466667	10.51667			
7.9	9.566667			
7.233333	7.75			
6.033333	7.333333			
6.766667	7.916667			
8.6	7.1			
8.166667	7.1			
7.433333	7.116667			
5.633333	7.3			
6.433333	6.8			
6.166667	6.65			
7.666667	#N/A			
#N/A	#N/A			



Moving Average with a span of 6 gives a much better correlation, 74% and R^2 equals 55%. Span of 3 gives worse results, but better than X1 by itself.
Therefore I would say that moving average of X1 with s=6 is a good, but not perfect predicator for X2. This pretty much depends on accuracy you desire.
75% correlation is good in some cases, bad in others. Given it's alarm system I would require at least 95% correlation.

7

T=0	T=1	T=2	T=3	T=4	T=5	T=6	T=7	T=8	T=9	T=10
	7.5									
7.5	2.2									
2.2	3.2	7.5								
3.2	4.2	3.2	7.5							
4.2	4.3	2.2	3.2	7.5						
4.3	4.5	4.2	2.2	3.2	7.5					
4.5	2.2	4.3	4.2	2.2	3.2	7.5				
2.2	2.7	4.5	4.3	4.2	2.2	3.2	7.5			
2.7	4.5	2.2	4.5	4.3	4.2	2.2	3.2	7.5		
4.5	8.5	2.7	2.2	4.5	4.3	4.2	2.2	3.2	7.5	
8.5	9.6	4.5	2.7	2.2	4.5	4.3	4.2	2.2	3.2	7.5
9.6	7.5	9.6	4.5	2.7	2.2	4.5	4.3	4.2	2.2	3.2
7.5	4	7.5	9.6	4.5	2.7	2.2	4.5	4.3	4.2	2.2
4	8.6	4	4.5	7.5	9.6	4.5	2.7	2.2	4.5	4.3
8.6	10.2	8.6	4	4.5	7.5	9.6	8.5	4.5	2.7	2.2
10.2	12.2	10.2	8.6	4	4.5	7.5	9.6	8.5	4.5	2.7
12.2	13.5	12.2	10.2	8.6	4	4.5	7.5	9.6	8.5	4.5
13.5	15.6	13.5	12.2	10.2	8.6	4	4.5	7.5	9.6	8.5
15.6	10.3	15.6	13.5	12.2	10.2	8.6	4	4.5	7.5	9.6
10.3	8.3	9.8	10.3	15.6	13.5	12.2	10.2	8.6	4	4.5
8.3	5.6	8.3	9.8	10.3	15.6	13.5	12.2	10.2	8.6	4
5.6	7.8	5.6	8.3	9.8	10.3	15.6	13.5	12.2	10.2	8.6
7.8	4.7	7.8	5.6	8.3	9.8	10.3	15.6	13.5	12.2	10.2
4.7	7.8	4.7	7.8	5.6	8.3	9.8	10.3	15.6	13.5	12.2
7.8	13.3	7.8	4.7	7.8	5.6	8.3	9.8	10.3	15.6	13.5
13.3	7.8	13.3	7.8	4.7	7.8	5.6	8.3	9.8	10.3	15.6
7.8	3.4	5.6	3.4	13.3	7.8	4.7	7.8	5.6	8.3	9.8
3.4	5.6	7.9	5.6	3.4	13.3	7.8	4.7	7.8	5.6	8.3
5.6	7.9	5.8	7.9	5.6	3.4	13.3	7.8	4.7	7.8	5.6
7.9	5.8	12.4	5.8	7.9	5.6	3.4	13.3	7.8	4.7	7.8
5.8	12.4		12.4	5.8	7.9	5.6	3.4	13.3	7.8	4.7
12.4				12.4	5.8	7.9	5.6	3.4	13.3	7.8
					12.4	5.8	7.9	5.6	3.4	13.3
						12.4	5.8	7.9	5.6	3.4
							12.4	5.8	7.9	5.6
								12.4	5.8	7.9
									12.4	5.8
										12.4

AutoCorr	0.533135	0.313754	0.284959	0.055584	0.021906	0.175	0.070175	0.007919	-0.09102	-0.26462

8

T	X1	X2	State	Distance
34	5	8		
1	6.25	0.25	Pending	6.5
2	7.84	0.49	Pending	8.33
3	3.24	13.69	Small	16.93
4	0.64	1.69	Pending	2.33
5	0.49	4.84	Small	5.33
6	0.25	20.25	Small	20.5
7	7.84	30.25	Small	38.09
8	5.29	18.49	Small	23.78
9	0.25	0.81	Imminent	1.06
10	12.25	5.76	Pending	18.01
11	21.16	11.56	Pending	32.72
12	6.25	9.61	Pending	15.86
13	0.25	17.64	Imminent	17.89
14	1	30.25	Imminent	31.25
15	12.96	27.04	Imminent	40
16	27.04	23.04	Imminent	50.08
17	51.84	96.04	Imminent	147.88
18	72.25	70.56	Imminent	142.81
19	112.36	17.64	Imminent	130
20	28.09	5.76	Pending	33.85
21	23.04	5.76	Imminent	28.8
22	10.89	10.89	Imminent	21.78
23	0.36	0.04	Imminent	0.4
24	7.84	5.76	Imminent	13.6
25	0.09	0.04	Small	0.13
26	7.84	11.56	Pending	19.4
27	68.89	0.81	Imminent	69.7
28	2.56	11.56	Small	14.12
29	0.36	1.96	Small	2.32
30	8.41	2.25	Pending	10.66
31	0.64	1.96	Pending	2.6
32	0.04	11.56	Pending	11.6
33	54.76	1.21	Imminent	55.97

	Imminent	Pending	Small	
1-NN	0	0	1	Small
2-NN	1	0	1	I/S
3-NN	2	0	1	Imminent
4-NN	2	0	2	Imminent
5-NN	2	1	2	I/S
6-NN	2	2	2	I/P/S
7-NN	2	2	3	Small
8-NN	2	3	3	P/S
9-NN	2	4	3	Pending
10-NN	2	5	3	Pending

Ties count as win for every tied state.

Small won in six cases, Therefore Small state

T	X1	X2	State	Distance
35	10	7		
1	6.25	2.25	Pending	8.5
2	60.84	0.09	Pending	60.93
3	46.24	7.29	Small	53.53
4	33.64	0.09	Pending	33.73
5	32.49	1.44	Small	33.93
6	30.25	12.25	Small	42.5
7	60.84	20.25	Small	81.09
8	53.29	10.89	Small	64.18
9	30.25	3.61	Imminent	33.86
10	2.25	1.96	Pending	4.21
11	0.16	5.76	Pending	5.92
12	6.25	4.41	Pending	10.66
13	30.25	27.04	Imminent	57.29
14	36	42.25	Imminent	78.25
15	1.96	38.44	Imminent	40.4
16	0.04	33.64	Imminent	33.68
17	4.84	116.64	Imminent	121.48
18	12.25	88.36	Imminent	100.61
19	31.36	27.04	Imminent	58.4
20	0.09	11.56	Pending	11.65
21	0.04	11.56	Imminent	11.6
22	2.89	18.49	Imminent	21.38
23	19.36	0.64	Imminent	20
24	4.84	1.96	Imminent	6.8
25	28.09	0.64	Small	28.73
26	4.84	5.76	Pending	10.6
27	10.89	3.61	Imminent	14.5
28	43.56	5.76	Small	49.32
29	19.36	0.16	Small	19.52
30	4.41	6.25	Pending	10.66
31	17.64	0.16	Pending	17.8
32	27.04	5.76	Pending	32.8
33	5.76	4.41	Imminent	10.17
34	25	1	Small	26

	Imminent	Pending	Small	
1-NN	0	1	0	Pending
2-NN	0	2	0	Pending
3-NN	1	2	0	Pending
4-NN	1	3	0	Pending
5-NN	2	3	0	Pending
6-NN	2	4	0	Pending
7-NN	2	5	0	Pending
8-NN	2	6	0	Pending
9-NN	3	6	0	Pending
10-NN	3	7	0	Pending

Ties count as win for every tied state.

Pending won all cases, Therefore Pending state

T	X1	X2	State	Distance
36	20	1		
1	156.25	56.25	Pending	212.5
2	316.84	39.69	Pending	356.53
3	282.24	10.89	Small	293.13
4	249.64	32.49	Pending	282.13
5	246.49	23.04	Small	269.53
6	240.25	6.25	Small	246.5
7	316.84	2.25	Small	319.09
8	299.29	7.29	Small	306.58
9	240.25	62.41	Imminent	302.66
10	132.25	21.16	Pending	153.41
11	108.16	12.96	Pending	121.12
12	156.25	15.21	Pending	171.46
13	240.25	125.44	Imminent	365.69
14	256	156.25	Imminent	412.25
15	129.96	148.84	Imminent	278.8
16	96.04	139.24	Imminent	235.28
17	60.84	282.24	Imminent	343.08
18	42.25	237.16	Imminent	279.41
19	19.36	125.44	Imminent	144.8
20	94.09	88.36	Pending	182.45
21	104.04	88.36	Imminent	192.4
22	136.89	106.09	Imminent	242.98
23	207.36	46.24	Imminent	253.6
24	148.84	21.16	Imminent	170
25	234.09	46.24	Small	280.33
26	148.84	12.96	Pending	161.8
27	44.89	62.41	Imminent	107.3
28	275.56	12.96	Small	288.52
29	207.36	31.36	Small	238.72
30	146.41	72.25	Pending	218.66
31	201.64	31.36	Pending	233
32	231.04	12.96	Pending	244
33	57.76	65.61	Imminent	123.37
34	225	49	Small	274
35	100	36	Pending	136

	Imminent	Pending	Small	
1-NN	1	0	0	Imminent
2-NN	1	1	0	I/P
3-NN	2	1	0	Imminent
4-NN	2	2	0	I/P
5-NN	3	2	0	Imminent
6-NN	3	3	0	I/P
7-NN	3	4	0	Pending
8-NN	4	4	0	I/P
9-NN	4	5	0	Pending
10-NN	4	6	0	Pending

Ties count as win for every tied state.

Tie, Choose randomly, Flipped a coin and got imminent.

9

Step 1: Pick out starting points for each cluster

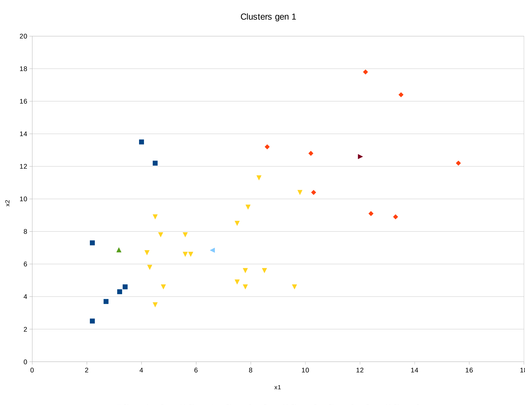
T	X1	X2	State	
1	7.5	8.5	Pending	
2	2.2	7.3	Pending	Start 1
3	3.2	4.3	Small	
4	4.2	6.7	Pending	
5	4.3	5.8	Small	
6	4.5	3.5	Small	
7	2.2	2.5	Small	
8	2.7	3.7	Small	
9	4.5	8.9	Imminent	
10	8.5	5.6	Pending	
11	9.6	4.6	Pending	
12	7.5	4.9	Pending	
13	4.5	12.2	Imminent	
14	4	13.5	Imminent	
15	8.6	13.2	Imminent	
16	10.2	12.8	Imminent	
17	12.2	17.8	Imminent	
18	13.5	16.4	Imminent	
19	15.6	12.2	Imminent	Start 2
20	10.3	10.4	Pending	
21	9.8	10.4	Imminent	
22	8.3	11.3	Imminent	
23	5.6	7.8	Imminent	
24	7.8	5.6	Imminent	
25	4.7	7.8	Small	
26	7.8	4.6	Pending	
27	13.3	8.9	Imminent	
28	3.4	4.6	Small	
29	5.6	6.6	Small	Start 3
30	7.9	9.5	Pending	
31	5.8	6.6	Pending	
32	4.8	4.6	Pending	
33	12.4	9.1	Imminent	

Step 2: Calculate sum of squares distance and cluster number for each entry

	1	2	3				
T	Start1	Start2	Start3	Min	Choice		
1	29.53	79.3	7.22	7.22	3		
2	0	203.57	12.05	0	1		
3	10	216.17	11.05	10	1		
4	4.36	160.21	1.97	1.97	3		
5	6.66	168.65	2.33	2.33	3		
6	19.73	198.9	10.82	10.82	3		
7	23.04	273.65	28.37	23.04	1		
8	13.21	238.66	16.82	13.21	1		
9	7.85	134.1	6.5	6.5	3		
10	42.58	93.97	9.41	9.41	3		
11	62.05	93.76	20	20	3		
12	33.85	118.9	6.5	6.5	3		
13	29.3	123.21	32.57	29.3	1		
14	41.68	136.25	50.17	41.68	1		
15	75.77	50	52.56	50	2		
16	94.25	29.52	59.6	29.52	2		
17	210.25	42.92	169	42.92	2		
18	210.5	22.05	158.45	22.05	2		
19	203.57	0	131.36	0	2		
20	75.22	31.33	36.53	31.33	2		
21	67.37	36.88	32.08	32.08	3		
22	53.21	54.1	29.38	29.38	3		
23	11.81	119.36	1.44	1.44	3		
24	34.25	104.4	5.84	5.84	3		
25	6.5	138.17	2.25	2.25	3		
26	38.65	118.6	8.84	8.84	3		
27	125.77	16.18	64.58	16.18	2		
28	8.73	206.6	8.84	8.73	1		
29	12.05	131.36	0	0	3		
30	37.33	66.58	13.7	13.7	3		
31	13.45	127.4	0.04	0.04	3	Cluster 1	7
32	14.05	174.4	4.64	4.64	3	Cluster 2	8
33	107.28	19.85	52.49	19.85	2	Cluster 3	18
	Sum Squared Error			500.77			

Step 3: Calculate averages for each cluster

Cluster	T	Cluster 1		Cluster 2		Cluster 3	
		x1	x2	x1	x2	x1	x2
3	1					7.5	8.5
1	2	2.2	7.3				
1	3	3.2	4.3				
3	4					4.2	6.7
3	5					4.3	5.8
3	6					4.5	3.5
1	7	2.2	2.5				
1	8	2.7	3.7				
3	9					4.5	8.9
3	10					8.5	5.6
3	11					9.6	4.6
3	12					7.5	4.9
1	13	4.5	12.2				
1	14	4	13.5				
2	15			8.6	13.2		
2	16			10.2	12.8		
2	17			12.2	17.8		
2	18			13.5	16.4		
2	19			15.6	12.2		
2	20			10.3	10.4		
3	21					9.8	10.4
3	22					8.3	11.3
3	23					5.6	7.8
3	24					7.8	5.6
3	25					4.7	7.8
3	26					7.8	4.6
2	27			13.3	8.9		
1	28	3.4	4.6				
3	29					5.6	6.6
3	30					7.9	9.5
3	31					5.8	6.6
3	32					4.8	4.6
2	33			12.4	9.1		
	Average	3.171429	6.871429	12.0125	12.6	6.594444	6.85

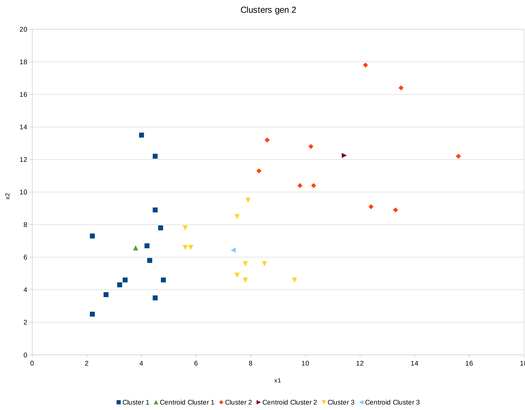


Step 4: Repeat Step 2 for new averages calculated in Step 3

	1	2	3				
T	Start1	Start2	Start3	Min	Choice		
1	21.38878	37.17266	3.542531	3.542531	3		
2	1.127347	124.3752	19.51364	1.127347	1		
3	6.613061	146.5502	18.02475	6.613061	1		
4	1.087347	95.84516	5.755864	1.087347	1		
5	2.421633	105.7227	6.366975	2.421633	1		
6	13.13163	139.2477	15.6092	13.13163	1		
7	20.05306	198.2952	38.23364	20.05306	1		
8	10.2802	165.9327	25.0892	10.2802	1		
9	5.880204	70.12766	8.589198	5.880204	1		
10	30.0102	61.33766	5.193642	5.193642	3		
11	46.48592	69.82016	14.09586	14.09586	3		
12	22.62306	79.65266	4.622531	4.622531	3		
13	30.15878	56.59766	33.0092	30.15878	1		
14	44.62449	65.01016	50.95364	44.62449	1		
15	69.5202	12.00516	44.34475	12.00516	2		
16	84.54878	3.325156	48.40253	3.325156	2		
17	200.9488	27.07516	151.3248	27.07516	2		
18	197.4731	16.65266	138.8892	16.65266	2		
19	182.8631	13.03016	109.7225	13.03016	2		
20	63.26735	7.772656	26.33364	7.772656	2		
21	56.38878	9.735156	22.87809	9.735156	2		
22	45.91449	15.47266	22.71142	15.47266	2		
23	6.760204	64.16016	1.89142	1.89142	3		
24	23.0402	66.74516	3.015864	3.015864	3		
25	3.198776	76.51266	4.49142	3.198776	1		
26	26.58306	81.74516	6.515864	6.515864	3		
27	106.7031	15.34766	49.16698	15.34766	2		
28	5.211633	138.1752	15.26698	5.211633	1		
29	5.971633	77.12016	1.05142	1.05142	3		
30	29.26878	26.52266	8.726975	8.726975	3		
31	6.983061	74.59516	0.693642	0.693642	3	Cluster 1	13
32	7.811633	116.0202	8.282531	7.811633	1	Cluster 2	10
33	90.13306	12.40016	38.76698	12.40016	2	Cluster 3	10
	Sum Squared Error			333.7661			

Step 5: Calculate new averages for clusters

Cluster	T	Cluster 1		Cluster 2		Cluster 3	
		x1	x2	x1	x2	x1	x2
3	1					7.5	8.5
1	2	2.2	7.3				
1	3	3.2	4.3				
1	4	4.2	6.7				
1	5	4.3	5.8				
1	6	4.5	3.5				
1	7	2.2	2.5				
1	8	2.7	3.7				
1	9	4.5	8.9				
3	10					8.5	5.6
3	11					9.6	4.6
3	12					7.5	4.9
1	13	4.5	12.2				
1	14	4	13.5				
2	15			8.6	13.2		
2	16			10.2	12.8		
2	17			12.2	17.8		
2	18			13.5	16.4		
2	19			15.6	12.2		
2	20			10.3	10.4		
2	21			9.8	10.4		
2	22			8.3	11.3		
3	23					5.6	7.8
3	24					7.8	5.6
1	25	4.7	7.8				
3	26					7.8	4.6
2	27			13.3	8.9		
1	28	3.4	4.6				
3	29					5.6	6.6
3	30					7.9	9.5
3	31					5.8	6.6
1	32	4.8	4.6				
2	33			12.4	9.1		
	Average	3.784615	6.569231	11.42	12.25	7.36	6.43



Step 6: Repeat Step 4 for new averages calculated in Step 5

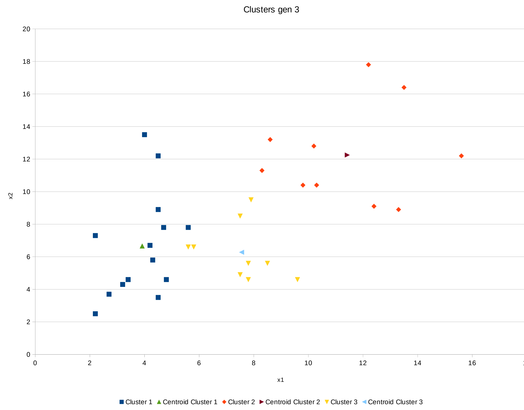
	1	2	3		
T	Start1	Start2	Start3	Min	Choice
1	17.53195	29.4289	4.3045	4.3045	3
2	3.04503	109.5109	27.3825	3.04503	1
3	5.491183	130.7709	21.8425	5.491183	1
4	0.189645	82.9309	10.0585	0.189645	1
5	0.857337	92.2969	9.7605	0.857337	1
6	9.931953	124.4489	16.7645	9.931953	1
7	19.06964	180.0709	42.0705	19.06964	1
8	9.408876	149.1409	29.1685	9.408876	1
9	5.94426	59.1089	14.2805	5.94426	1
10	23.17426	52.7489	1.9885	1.9885	3
11	37.69657	61.8349	8.3665	8.3665	3
12	16.59041	69.3889	2.3605	2.3605	3
13	32.21734	47.8889	41.4725	32.21734	1
14	48.08195	56.6189	61.2745	48.08195	1
15	67.15503	8.8549	47.3705	8.8549	2
16	79.97964	1.7909	48.6425	1.7909	2
17	196.9489	31.4109	152.7025	31.4109	2
18	191.0327	21.5489	137.1005	21.5489	2
19	171.3089	17.4749	101.1905	17.4749	2
20	57.12503	4.6769	24.4045	4.6769	2
21	50.85964	6.0469	21.7145	6.0469	2
22	42.76888	10.6369	24.6005	10.6369	2
23	4.810414	53.6749	4.9745	4.810414	1
24	17.06272	57.3269	0.8825	0.8825	3
25	2.352722	64.9609	8.9525	2.352722	1
26	20.00118	71.6269	3.5425	3.5425	3
27	95.97503	14.7569	41.3845	14.7569	2
28	4.025799	122.8429	19.0305	4.025799	1
29	3.296568	65.7949	3.1265	3.1265	3
30	25.5258	19.9529	9.7165	9.7165	3
31	4.062722	63.5069	2.4625	2.4625	3
32	4.908876	102.3469	9.9025	4.908876	1
33	80.62964	10.8829	32.5305	10.8829	2

Cluster 1	14
Cluster 2	10
Cluster 3	9

Sum Squared Error 315.1665

Step 7: Calculate new averages for clusters

Cluster	T	Cluster 1		Cluster 2		Cluster 3	
		x1	x2	x1	x2	x1	x2
3	1					7.5	8.5
1	2	2.2	7.3				
1	3	3.2	4.3				
1	4	4.2	6.7				
1	5	4.3	5.8				
1	6	4.5	3.5				
1	7	2.2	2.5				
1	8	2.7	3.7				
1	9	4.5	8.9				
3	10					8.5	5.6
3	11					9.6	4.6
3	12					7.5	4.9
1	13	4.5	12.2				
1	14	4	13.5				
2	15			8.6	13.2		
2	16			10.2	12.8		
2	17			12.2	17.8		
2	18			13.5	16.4		
2	19			15.6	12.2		
2	20			10.3	10.4		
2	21			9.8	10.4		
2	22			8.3	11.3		
1	23	5.6	7.8				
3	24					7.8	5.6
1	25	4.7	7.8				
3	26					7.8	4.6
2	27			13.3	8.9		
1	28	3.4	4.6				
3	29					5.6	6.6
3	30					7.9	9.5
3	31					5.8	6.6
1	32	4.8	4.6				
2	33			12.4	9.1		
Average		3.914286	6.657143	11.42	12.25	7.555556	6.277778



Step 8: Repeat Step 6 for new averages calculated in Step 7

	1	2	3		
T	Start1	Start2	Start3	Min	Choice
1	16.25347	29.4289	4.941358	4.941358	3
2	3.352041	109.5109	29.72691	3.352041	1
3	6.066327	130.7709	22.88247	6.066327	1
4	0.083469	82.9309	11.43802	0.083469	1
5	0.883469	92.2969	10.82691	0.883469	1
6	10.31061	124.4489	17.05247	10.31061	1
7	20.22061	180.0709	42.95358	20.22061	1
8	10.21918	149.1409	30.22136	10.21918	1
9	5.373469	59.1089	16.21247	5.373469	1
10	22.14633	52.7489	1.351358	1.351358	3
11	36.55918	61.8349	6.994691	6.994691	3
12	15.9449	69.3889	1.901358	1.901358	3
13	31.06633	47.8889	44.40914	31.06633	1
14	46.83204	56.6189	64.80247	46.83204	1
15	64.7649	8.8549	49.00802	8.8549	2
16	77.2449	1.7909	49.53247	1.7909	2
17	192.8163	31.4109	154.3325	31.4109	2
18	186.8092	21.5489	137.7958	21.5489	2
19	167.2792	17.4749	99.7858	17.4749	2
20	54.78633	4.6769	24.52469	4.6769	2
21	48.65061	6.0469	22.03025	6.0469	2
22	40.79061	10.6369	25.77691	10.6369	2
23	4.147755	53.6749	6.141358	4.147755	1
24	16.21633	57.3269	0.519136	0.519136	3
25	1.923469	64.9609	10.47136	1.923469	1
26	19.33061	71.6269	2.874691	2.874691	3
27	93.12204	14.7569	39.87469	14.7569	2
28	4.496327	122.8429	20.08358	4.496327	1
29	2.844898	65.7949	3.928025	2.844898	1
30	23.96776	19.9529	10.50136	10.50136	3
31	3.559184	63.5069	3.185802	3.185802	3
32	5.016327	102.3469	10.40802	5.016327	1
33	77.9749	10.8829	31.43358	10.8829	2

Cluster 1	15
Cluster 2	10
Cluster 3	8

Sum Squared Error 313.1871

Step 9: Terminate since Sum Squared Error has not improved much (also cannot be bothered to do it any more)

Cluster	T	Cluster 1		Cluster 2		Cluster 3	
		x1	x2	x1	x2	x1	x2
3	1					7.5	8.5
1	2	2.2	7.3				
1	3	3.2	4.3				
1	4	4.2	6.7				
1	5	4.3	5.8				
1	6	4.5	3.5				
1	7	2.2	2.5				
1	8	2.7	3.7				
1	9	4.5	8.9				
3	10					8.5	5.6
3	11					9.6	4.6
3	12					7.5	4.9
1	13	4.5	12.2				
1	14	4	13.5				
2	15			8.6	13.2		
2	16			10.2	12.8		
2	17			12.2	17.8		
2	18			13.5	16.4		
2	19			15.6	12.2		
2	20			10.3	10.4		
2	21			9.8	10.4		
2	22			8.3	11.3		
1	23	5.6	7.8				
3	24					7.8	5.6
1	25	4.7	7.8				
3	26					7.8	4.6
2	27			13.3	8.9		
1	28	3.4	4.6				
1	29	5.6	6.6				
3	30					7.9	9.5
3	31					5.8	6.6
1	32	4.8	4.6				
2	33			12.4	9.1		
Average		4.026667	6.653333	11.42	12.25	7.8	6.2375