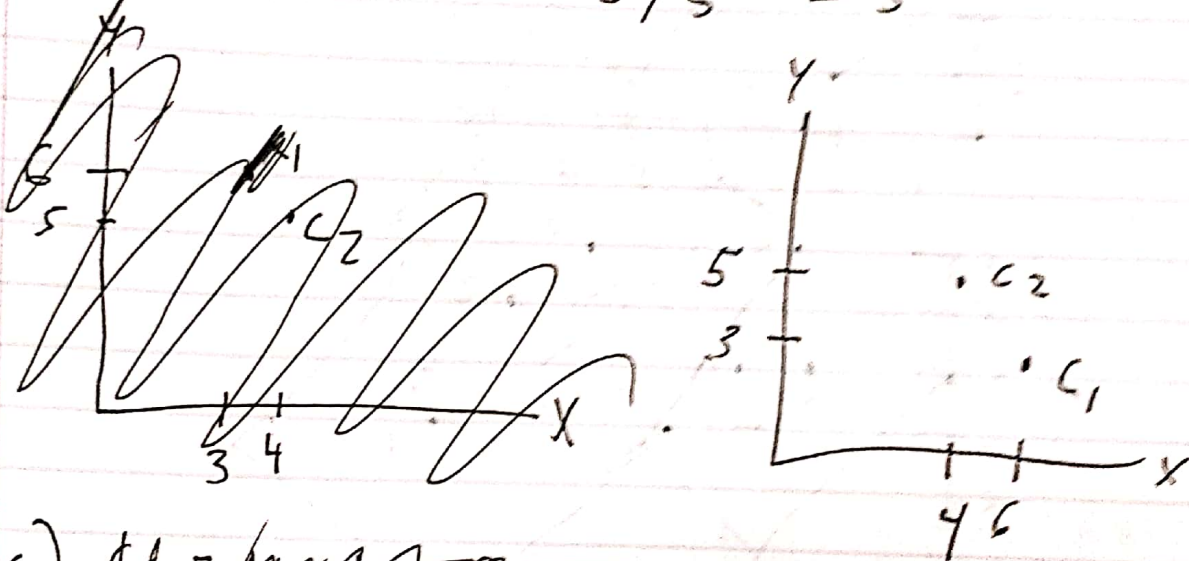a) C_1 - 1, 3, 4, 2, 7

C_2 - 5, 6, 8

b) C_1 x : $5 + 7 + 7 + 4 = $ ~~18/12/1~~ 30/5=6

C_1 y : $2 + 2 + 3 + 3 + 5 = 15/5 = 3$

C_2 x: $3 + 4 + 5 = 12/3 = 4$

C_2 y: $4 + 5 + 6 = 15/3 = 5$

c) ~~scribbled out~~

$C_1 = 4 + 4 + 16 + 9 + 25 = 58$

$C_2 = 4 + 9 + 9 \qquad = 22$

New $C_1 = 1 + 4 + 4 + 4 + 9 = 22$

New $C_2 = 1 + 4 + 9 = \qquad = 14$

Much better

d) because initial conditions may cause
the clusters to be different, and some clusters
are obviously better than others.

e) All points would go to c_1

2. a)

b)