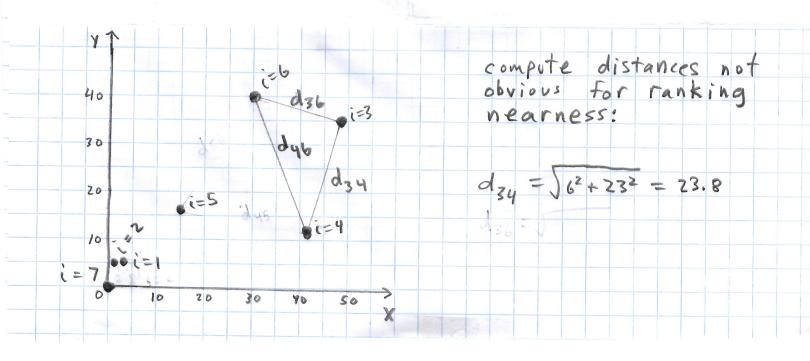
ADS Assignment 8

K-Nearest Neighbors

determine

		, ,	A CONTRACTOR OF THE PROPERTY O		A second	The same of the sa	The state of the s	T.
(x_i, y_i)	(2,5)	(1,5)	(48,35)	(42,12)	(15,16)	(30,40)	(0,0)	and the state of t
class	l	and the colonial party and the section of the secti	Z	2	1	2		K=1
		1	2	2		2		K=2
		north annual	2	2		2	1	K=3
Ċ	A second	normal parent assertant particular	3	4	5	6	7	



K=1: C(5): nearest point is (2,5) :: C(5)=1 (by inspection) C(6): nearest point is (48,35) :: (6)=2 (by inspection) C(7): ... (1,5) :: C(7)=1

K=2: $C^{(5)}$: nearest 72 points: (2,5), (1,5): $C^{(5)}=1$ all unanimous $C^{(6)}$ is 2 is (48,35), (42,12): $C^{(6)}=2$ votes $C^{(7)}$ is 2 is (1,5), (2,5) is $C^{(7)}=1$

K=3: For $i \in (5,6,7)$, class determined by majority of 3 Since for k=2 all votes were unanimous, classes are same for k=3!