WU #16 - Support Vector Machines 1

Math 154 - Jo Hardin

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Consider the following 4 data points in \mathbb{R}^2 , drawn on four separate coordinate systems. On each plot

Name: $_$

		the boundary two classes).	which would be	e created by t	he given me	thod (where th	e boundary	does perf
	k–N	N boundar	y (k = 1)		CART	boundary		
	3.0 -	+		+	3.0 -	+		+
	2.5 -				2.5 -			
X 7	2.0 -	-		×	2.0 -			
	1.5 -				1.5 -			
	1.0 -		_		1.0 -	_	-	
	0.4	0.8	1.2	1.6	0.4	0.8	1.2	1.6
	'terrible' linear boundary				'best' linear boundary			
	3.0 -	+		+	3.0 -	+		+
	2.5 -				2.5 -			
×	2.0 -	-		×	2.0 -			
	1.5 -				1.5 -			
	1.0 -		_		1.0 -	_	_	
	0.4	0.8	1.2	1.6	0.4	0.8	1.2	1.6

Solution

