

10) Given data,
feature label

1	0	}	Training dataset
2	0		
3	x		
6	x		
6	x	}	Testing dataset
7	0		
10	0		
11	0		

Finding distance from each data point in
Testing data set to an in training
dataset

1(0) 2(0) 3(x) 6(x) ans

Testing
data

6 5 4 3 0

7 6 5 4 1

10 9 8 7 4

11 10 9 8 5

assuming '0' as negatives & 'x' as positives
 true label . predicted label

			x	TP
	6	x	x	TP
		0	x	FP
Cost Label	7	0	x	FP
	10	0	x	FP
	4	0		

~~Cost~~

Confusion matrix is

$$\begin{bmatrix} \text{TN} & \text{FP} \\ \text{FN} & \text{TP} \end{bmatrix} = \begin{bmatrix} 0 & 3 \\ 0 & 1 \end{bmatrix}$$

$$\text{accuracy} = (\text{TP} + \text{TN}) / (\text{P} + \text{N}) = 4/5 = 0.8$$

$$\text{Sensitivity} = \text{TP} / \text{P} = 1/2 = 0.5$$

$$\text{Specificity} = \text{TN} / \text{N} = 0/3 = 0$$