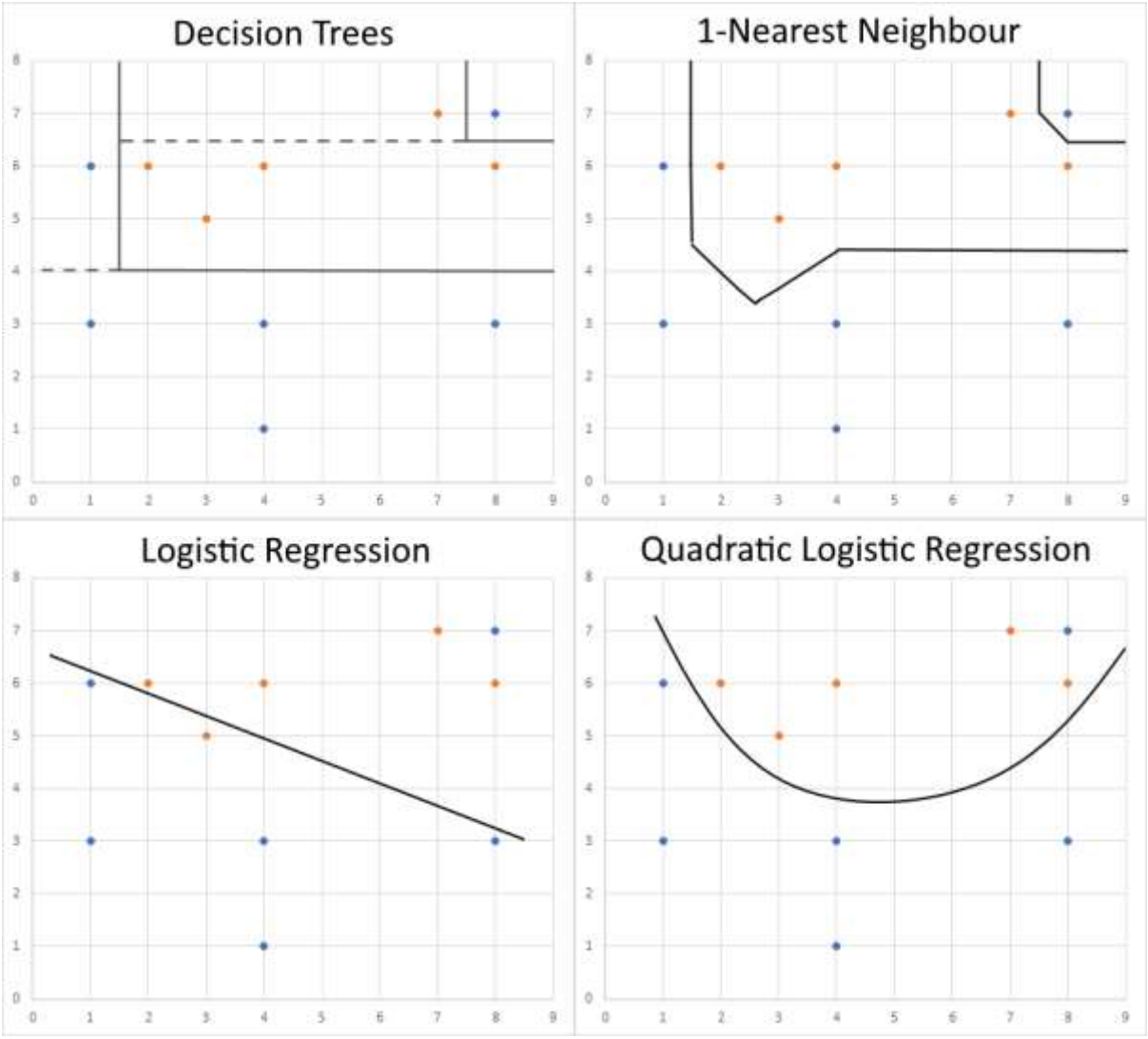
# Graded Assignment 2 Part 2

## (a)




## (b)

For this set of data, is clear that both the Decision Tree and 1-Nearest Neighbour methods are the ones that do not produce any form of mistakes. When using this specific dataset (or a very comparable one), it may be possible to incorporate these two algorithms together to find the optimal boundary.

As seen in the image, both graphs look very similar. When taking out the dotted lines in the DT graph, both fields contain the exact same data points, and follow a very similar shape.

The disadvantage of taking these two, however, is that they are both relatively intensive and costly to compute. So, when going for efficiency, it might be better to take either one of them and combine them with Quadratic Logistic Regression: the majority of the data boundary can be calculated with the QLR method, while the anomaly detection can be done using either DT or 1NN.