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A

On both the training and test sets, the LDA will perform better, because the decision boundry is linear.

B

On both the training and test sets, the QDA will perform better, because the decision boundry is non linear.

C

We expect the prediction accuracy of QDA to improve, because it will have more points to calculate and it needs more points in order to be more accurate.

D

False. With fewer sample points, the variance from using a more flexible method, such as QDA, would lead to overfit, yielding a higher test rate than LDA.

8 – knn error is for training sample 0% => for test sample 18\*2 = 36%

So I would choose logistic regression, because of the lower test error rate.