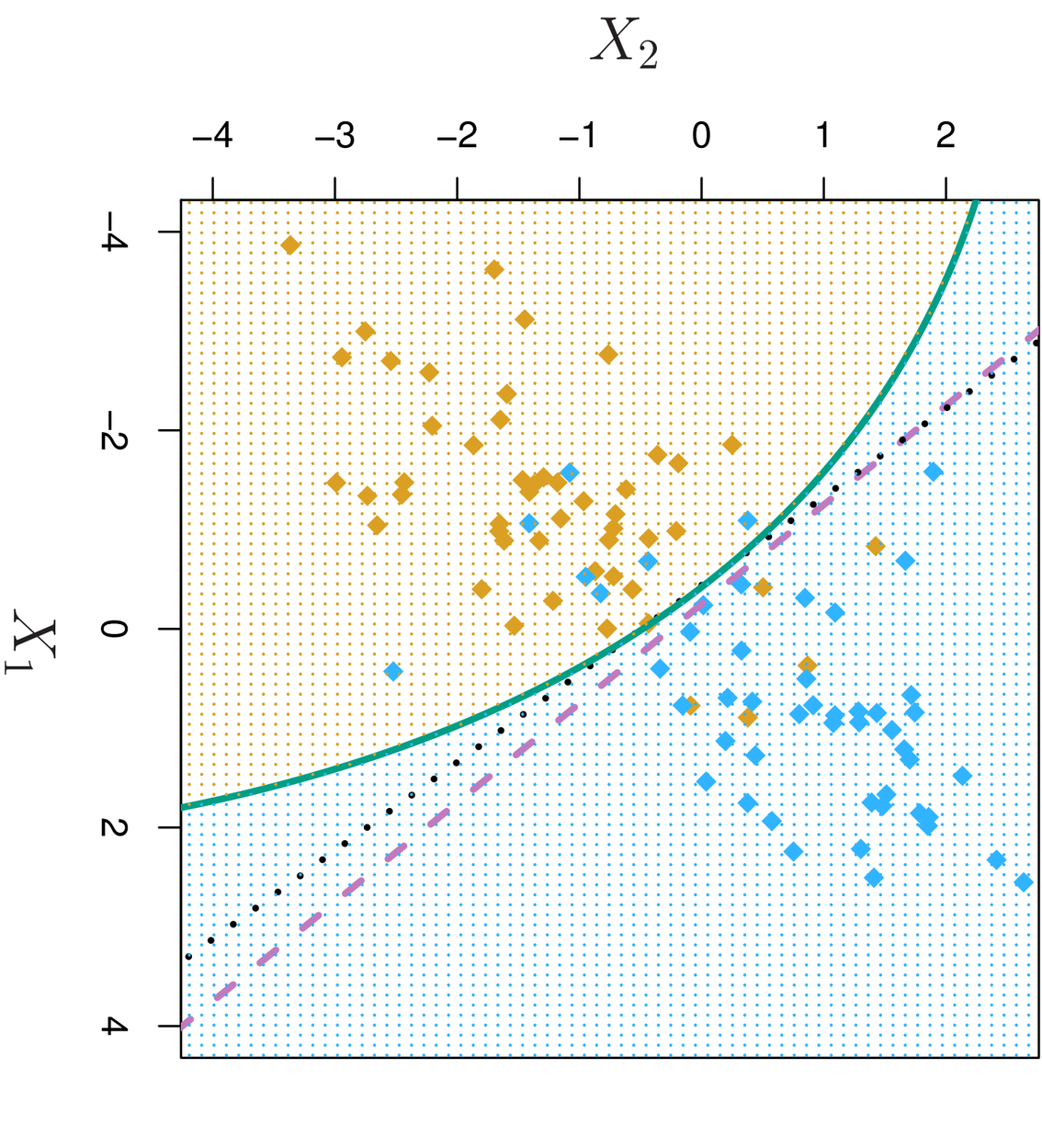
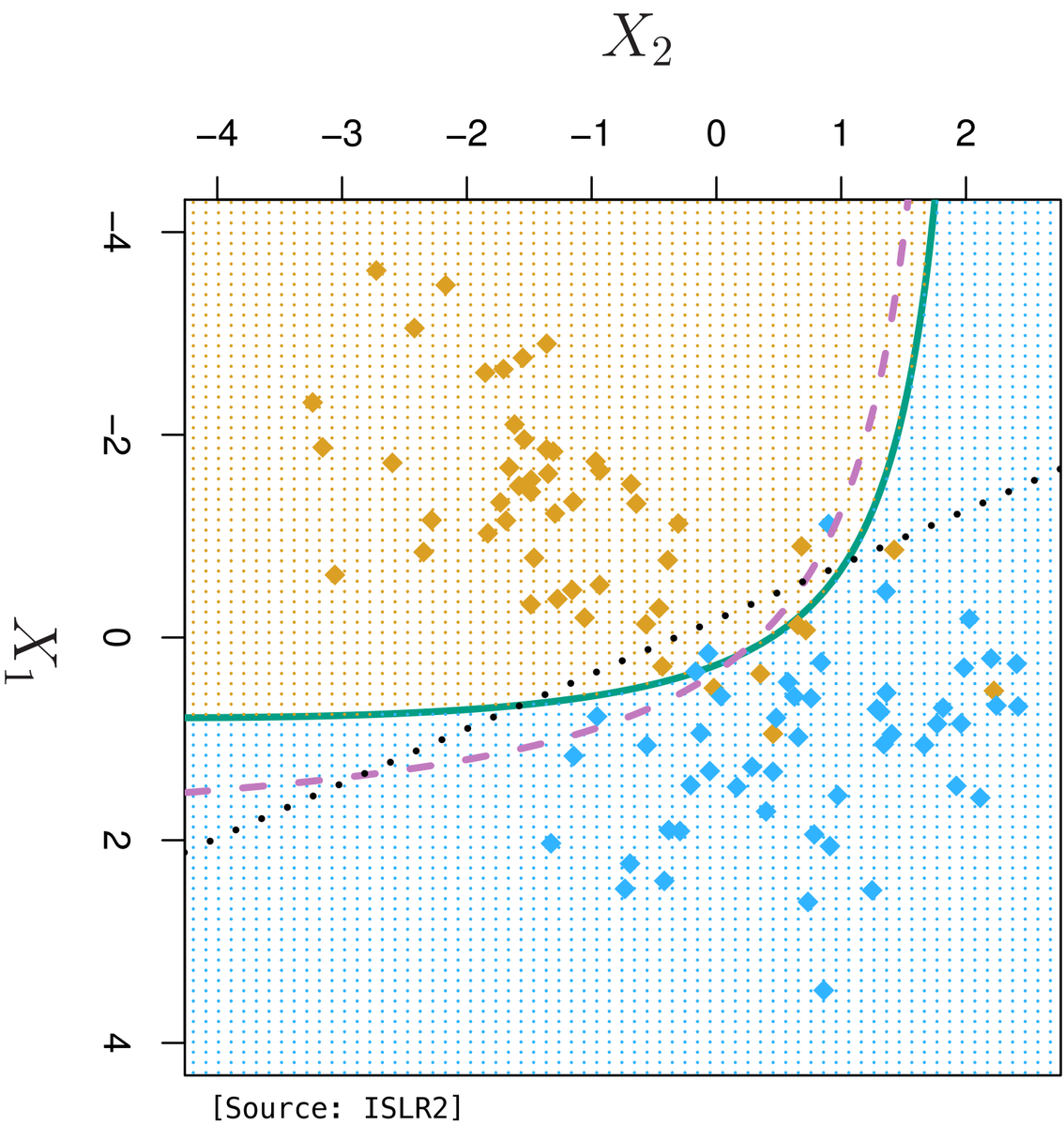
Quadratic Discriminant Analysis (QDA)

does not assume a common covariance across classes for these MVNs





[Source: ISLR2]

- LDA uses a linear decision rule (less flexible)

- constrains such that it uses same covariance matrix for each class

- QDA uses a quadratic decision rule (more flexible)

- allows each class k to have a different covariance matrix

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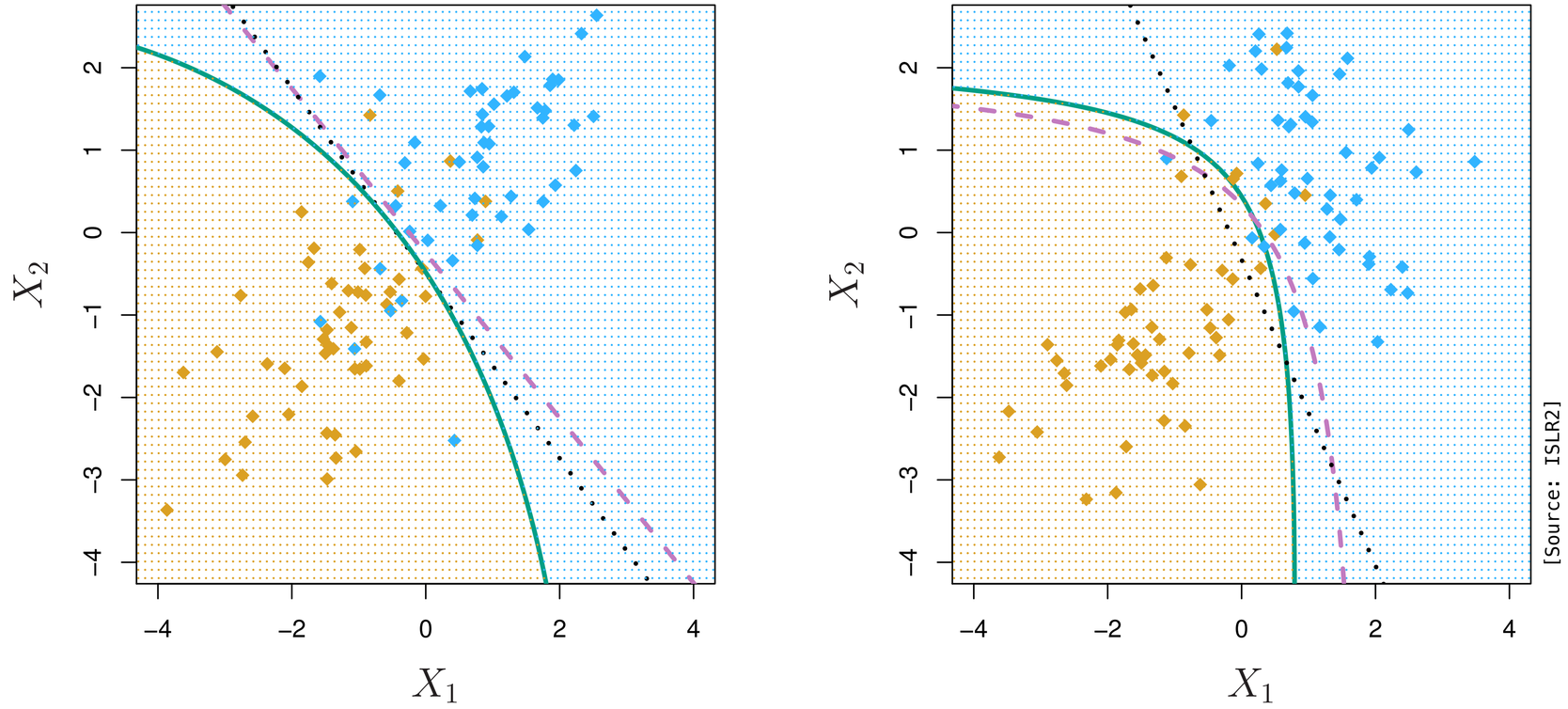

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KNN vs. Logistic Regression vs. LDA vs. QDA