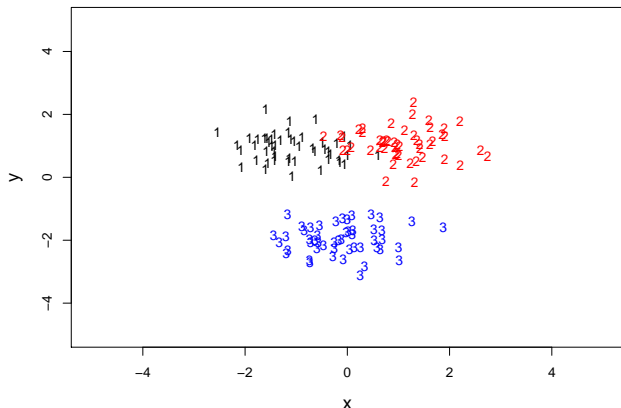


TMA4300 — Part 3

- ★ Not closely related to the first two parts
 - no more MCMC
 - mostly frequentist (non-Bayesian) perspective
- ★ Three topics:
 - classification problems
 - bootstrapping
 - expectation-maximisation algorithm
- ★ Note: The three topics are not closely related to each other

Classification

Situation: Have observations x_1, \dots, x_n and corresponding class labels y_1, \dots, y_n , where $y_i \in \{0, 1, \dots, J-1\}$ (Training data)



New observation: x_0

LDA

Note: $\hat{\delta}_i(x_0)$ is linear in x_0 . Thus the Bayes decision borders between the classification regions become lines/hyper-planes.

