

Written: 15 points

Topic: KNN, Logistic regression, KMC

Emphasis on **Logistic regression** [click here](#)

**KNN:**

How does validation set help in KNN? What's the purpose of validation set here?

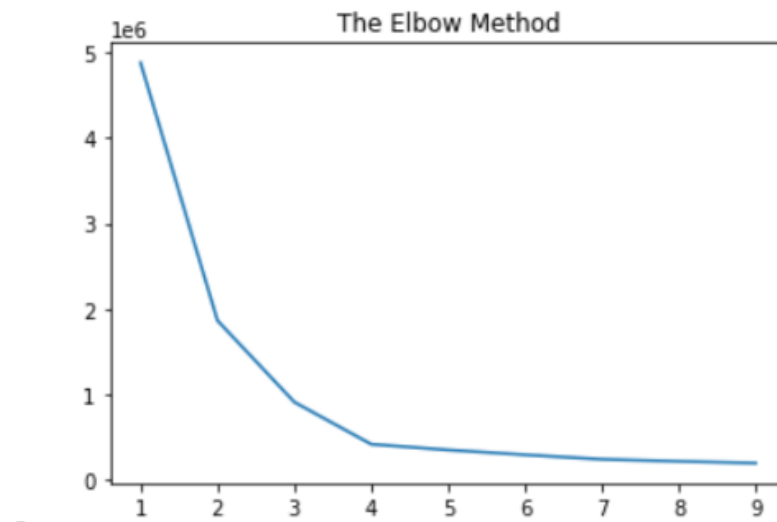
Why do we normalize data in KNN?

**KMC:**

Is KMC supervised or unsupervised? Explain your answer.

Why is low inertia + low num of K a good predictor for KMC?

and summing these squares across one cluster. A good model is one with low inertia AND a low number of clusters ( K ).



**Logistic regression:**

During training, how do we calculate theta in binary logistic regression?

How do we get learning rate using validation set? Explain the impact of slow/fast/moderate "learning" in binary logistic regression.

Explain the nature of sigmoid function i.e what type of output it produces?