

4a

Supervised learning differs from unsupervised learning as supervised learning requires its data sets be labelled and classified.

In a supervised learning model the model is trained by showing appropriately labelled data so that it can learn patterns from the training data to inform later decision making.

In an unsupervised learning model, no labelled training data is provided; instead, the model will attempt to make decisions based on groupings and associations that can be observed in the data.

4b

Classification algorithms aim to identify variables based on the learnt patterns from its training data. For example being able to ~~obtain~~ identify and classify letters on a page.

Regression algorithms aim to predict values based on learnt

patterns from its training data. Regression algorithms models

train against data to form an appropriate line of best fit

against its training data. Provided enough training data, this line

will be very appropriate ~~data~~ for predicting the value of the variable being measured.