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CS 425

Lab 2 Report

Question 1

It would be smart to convert from meters to centimeters for nearest neighbors because weight
is measures in kilograms. The difference in scale between the features would cause issues with
the KNN model. The difference between 100 (weight) and 1.75 (height) is huge.

Question 2

The statistics in the table do not give me a cause for concern because the signal-to-noise ratio
is pretty high. This indicates that the KNN model will most likely be accurate. There is not much
noise in the data.

Question 3

The scatter plot does indicate potential success when it comes to separating the two classes
based on the height and weight. The KNN model should be able to classify the athletes with
good accuracy because the scatterplot is grouped in a consistent fashion, like one would
expect it to be. The physique of basketball players vs. cyclers should look like it does in the
scatter plot.

Question 4
—Nothing to put here—

Question 5
I choose hyper-parameter 15

Question 6
—Nothing to put here—

Question 7
—Nothing to put here—