Week 7 - Check Your Understanding

1. In classification, K-nearest neighbors (KNN) model predict based on the minority outcome/response of the K nearest neighbors

    a. True
    b. False

2. To compute a prediction of 1NN for a new data point A, on a dataset with 100 data points, one needs to calculate how many distances?

    a. A hundred distances from all the points to point A
    b. One distance

3. The larger the k value in KNN models, the higher the train errors.

    a. True
    b. False

4. The prediction of KNN models with the same k value still depends on the selection of distance measurement.

    a. True
    b. False

5. One should not standardize the data before building a KNN model.

    a. True
    b. False

6. In weighted KNN, the closer the neighbor, the higher the weights it has

    a. True
    b. False

7. KNN models with weighted distance and uniform distance should always produce the same prediction.

    a. True
    b. False

8. KNN can be computationally expensive due to the amount of distance need to be calculated

    a. True
    b. False

9. KNN may not perform well in a higher dimension data due to the requirement of a large amount of data

    a. True
    b. False