socrative

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✓ **1.** KNN is

- A data-driven method
- B model-driven method
- C I do not know

✓ **2.** The dependent variable of the classification is

- A categorical
- B numeric
- C I do not know

✓ **3.** KNN can be used for regression

- A Yes
- B No
- C I do not know

✓ **4.** In the case of KNN classification we use

- A average of outcomes
- B majority voting scheme
- C I do not know

✗ **5.** Which of these errors will increase constantly by increasing k?

- A train error
- B test error
- C both
- D I do not know

6. This function can be used to perform KNN classificationin R

- A knn()
- B k_nn()
- C knnreg()
- D knearneib()
- E I do not know

7. With the increase of k, the decision boundary will be

- A simplified
- B more complex
- C I do not know
- D unchanged

8. KNN algorithm is sensitive to outliers

- A True
- B False
- C I do not know

9. KNN

- A is a supervised learning algorithm.
- B is an unsupervised learning algorithm.
- C I do not know

10. In the case of small k we have

- A overfitting
- B underfitting
- C it depends on the situation
- D I do not know

11. Why do we need scaling in KNN?

- A to avoid overfitting
- B to avoid underfitting
- C to have "equal" weights for variables
- D I do not know

✗ **12.** Let k = n, (n- number of observations), K-NN is same as

- A random guessing
- B everything will be classified as the most probable class (in total)
- C everything will be classified as the least probable class (in total)
- D I do not know

✓ **13.** This function can be used to perform K-NN regression in R

- A knn.reg
- B knnforreg
- C regknn
- D knnforregression
- E I do not know

✓ **14.** Do you need to worry about scaling with one explanatory variable?

- A No
- B Yes
- C I do not know

✓ **15.** n - the number of observation, m - the number of explanatory variables When n=k, m=1, the decision boundary for regression is

- A a line
- B a stepwise constant function
- C a stepwise quadratic function
- D I do not know

✓ **16.** Which of these algorithms can be used to fill the missing values

- A KNN for regression
- B KNN for classification
- C both
- D I do not know

✓ **17.** Which one is better: KNN regression or Linear regression?

A KNN outperform LR if the parametric form that has been selected is close to the true linear form

B LR outperform KNN if the parametric form that has been selected is close to the true linear form

C KNN will always outperform the LR

D I do not know

✓ **18.** Which one is the Disadvantage of KNN?

A required assumptions

B cannot be applied for regression

C difficult to perform

D the problem of high dimensional data

E I do not know

✗ **19.** The best k for train set equals to

A 1

B 2

C 0

D I do not know