socrative

DM-Spring-2020-Q6-Grade

19 Questions

1. KNN is

12/13 **A** data-driven method

1/13 **B** model-driven method

0/13 **C** I do not know

2. The dependent variable of the classification is

12/13 **A** categorical

1/13 **B** numeric

0/13 **C** I do not know

3. KNN can be used for regression

13/13 **A** Yes

0/13 **B** No

0/13 **C** I do not know

4. In the case of KNN classification we use

2/13 **A** average of outcomes

10/13 **B** majority voting scheme

1/13 **C** I do not know

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

7/13 **A** train error

5/13 **B** test error

1/13 **C** both

0/13 **D** I do not know

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

12/13 **A** knn()

0/13 **B** k_nn()

0/13 **C** knnreg()

0/13 **D** knearneib()

1/13 **E** I do not know

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

9/13 **A** simplified

4/13 **B** more complex

0/13 **C** I do not know

0/13 **D** unchanged

8. KNN algorithm is sensitive to outliers

12/13 **A** True

1/13 **B** False

0/13 **C** I do not know

9. KNN

12/13 **A** is a supervised learning algorithm.

1/13 **B** is an unsupervised learning algorithm.

0/13 **C** I do not know

10. In the case of small k we have

9/13 **A** overfitting

3/13 **B** underfitting

1/13 **C** it depends on the situation

0/13 **D** I do not know

11. Why do we need scaling in KNN?

3/13 **A** to avoid overfitting

2/13 **B** to avoid underfitting

6/13 **C** to have "equal" weights for variables

2/13 **D** I do not know

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

4/13 **A** random guessing

8/13 **B** everything will be classified as the most probable class (in total)

1/13 **C** everything will be classified as the least probable class (in total)

0/13 **D** I do not know

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

11/13 **A** knn.reg

0/13 **B** knnforreg

1/13 **C** regknn

0/13 **D** knnforregression

1/13 **E** I do not know

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

6/13 **A** No

6/13 **B** Yes

1/13 **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

7/13 **A** a line

4/13 **B** a stepwise constant function

1/13 **C** a stepwise quadratic function

1/13 **D** I do not know

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

1/13 **A** KNN for regression

3/13 **B** KNN for classification

9/13 **C** both

0/13 **D** I do not know

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

2/13 **A** KNN outperform LR if the parametric form that has been selected is close to the true linear form

11/13 **B** LR outperform KNN if the parametric form that has been selected is close to the true linear form

0/13 **C** KNN will always outperform the LR

0/13 **D** I do not know

18. Which one is the Disadvantage of KNN?

3/13 **A** required assumptions

0/13 **B** cannot be applied for regression

1/13 **C** difficult to perform

9/13 **D** the problem of high dimensional data

0/13 **E** I do not know

19. The best k for train set equals to

7/13 **A** 1

6/13 **B** 2

0/13 **C** 0

0/13 **D** I do not know