**Classification**

**TOTAL POINTS 15**

1.Question 1

Which one **IS NOT** a sample of classification problem?



To predict the category to which a customer belongs to.



To predict whether a customer switches to another provider/brand.



To predict the amount of money a customer will spend in one year.



To predict whether a customer responds to a particular advertising campaign or not.

3 points

2.Question 2

Which of the following statements are **TRUE** about Logistic Regression? (select all that apply)



Logistic regression can be used both for binary classification and multi-class classification



Logistic regression is analogous to linear regression but takes a categorical/discrete target field instead of a numeric one.



In logistic regression, the dependent variable is binary.

3 points

3.Question 3

Which of the following examples is/are a sample application of Logistic Regression? (select all that apply)



The probability that a person has a heart attack within a specified time period using person's age and sex.



Customer's propensity to purchase a product or halt a subscription in marketing applications.



Likelihood of a homeowner defaulting on a mortgage.



Estimating the blood pressure of a patient based on her symptoms and biographical data.

3 points

4.Question 4

Which one is **TRUE** about the kNN algorithm?



kNN is a classification algorithm that takes a bunch of unlabelled points and uses them to learn how to label other points.



kNN algorithm can be used to estimate values for a continuous target.

3 points

5.Question 5

What is "**information gain**" in decision trees?



It is the information that can decrease the level of certainty after splitting in each node.



It is the entropy of a tree before split minus weighted entropy after split by an attribute.



It is the amount of information disorder, or the amount of randomness in each node.

3 points