Quiz 4 - Logistic Regression

- Due Mar 3 at 11:59pm
- Points 18
- Questions 6
- Time Limit 15 Minutes
- Allowed Attempts 2

Attempt History

	Attempt	Time	Score
KEPT	**Attempt 1**	1 minute	18 out of 18
LATEST	**Attempt 2**	less than 1 minute	0 out of 18
	Attempt 1	1 minute	18 out of 18

Score for this attempt: 0 out of 18
Submitted Mar 2 at 3:59pm
This attempt took less than 1 minute.

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UnansweredQuestion 1

0 / 3 pts

The function we use to estimate a logistic regression using statsmodels package is logistic().

◯ True

Correct Answer

◯ False

⋮⋮

UnansweredQuestion 2

0 / 3 pts

Which of the following statement is correct?

◯ The logit is always between 0 and 1

Correct Answer

◯ The odds of probability 0.5 is 1

◯ The odds is always between 0 and 1

◯ The probability is a linear function of independent variables

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UnansweredQuestion 3

0 / 3 pts

Which of the following statement is NOT correct?

○ The target variable of logistic regression is categorical variable.

○ Logistic regression is a method of classification.

Correct Answer

○ Logistic regression models the absolute value of the target variable.

○ Logistic regression models a curve between 0 and 1.

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UnansweredQuestion 4

0 / 3 pts

Which of the following statement is correct?

○ The logistic regression we have learned can be directly applied to a variable with more than two categories.

○ The probability has a linear relationship with independent variables.

○ The odds has a linear relationship with independent variables.

Correct Answer

○ The logit has a linear relationship with independent variables.

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UnansweredQuestion 5

0 / 3 pts

How is the coefficient (beta) of an interval variable X in a logistic regression associated with the predicted values?

○ With one unit increase in X, the probability increases by e^(beta) units.

Correct Answer

○ With one unit increase in X, the odds ratio of after vs. before is e^(beta).

○ With one unit increase in X, the probability increases by beta units.

○ With one unit increase in X, the odds increase by beta units.

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UnansweredQuestion 6

0 / 3 pts

In an analysis of consumer budget compliance (1 - spending under the budget; 0 - spending above the budget), the coefficient of 'student' (yes/no) is 0.65 and p-value is less than 0.01. Which of the following statement is correct?

Correct Answer

○ The odds of a student consumer complying to budget is e^(0.65) times that of a non-student consumer.

○ Comparing to a non-student, the odds of a student consumer complying to budget is 65%.

○ Whether a consumer is a student does not impact their budget compliance.

○ Comparing to a non-student, a student consumer has 65% chance to comply to budget.

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Quiz Score: 0 out of 18

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