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1. Fill in the blank: Binomial logistic regression is a technique that models the \_\_\_\_\_ of an observation falling into one of two categories, based on one or more independent variables. 1 / 1 point
- ☐ determinant
- ☐ implications
- ☐ causations
- ☒ probability
- ☒ Correct
2. A data professional calculates a logarithm of the odds of a given probability. What are they calculating? 1 / 1 point
- ☐ Likelihood
- ☐ Precision
- ☐ Recall
- ☒ Logit
- ☒ Correct
3. Fill in the blank: Maximum likelihood estimation is a technique for estimating the \_\_\_\_\_ that maximize the likelihood of the model producing the observed data. 1 / 1 point
- ☐ continuous parameters
- ☐ beta coefficients
- ☐ continuous coefficients
- ☒ beta parameters
- ☒ Correct
4. For the binomial logistic regression linearity assumption, there should be a linear relationship between each X variable and what logit probability? 1 / 1 point
- ☐ Y equals 0
- ☒ Y equals 1

☐ X equals Y

☐ X equals 1

☒ Correct

5. Fill in the blank: A confusion matrix is a graphical representation of how accurate a classifier is at predicting the labels for a \_\_\_\_\_ variable.

1 / 1 point

☐ correlated

☐ confidence

☐ continuous

☒ categorical

☒ Correct

6. A data professional calculates precision in logistic regression results. They have 116 true positives, 91 true negatives, 3 false positives, and 2 false negatives. What is the calculation for precision?

1 / 1 point

☐  $(91 + 3) / 116$

☒  $116 / (116 + 3)$

☐  $116 / (3 + 2)$

☐  $91 / (116 + 3)$

☒ Correct

7. A data professional calculates accuracy in logistic regression results. They have 87 true positives, 94 true negatives, and 222 total predictions. What is the calculation for accuracy?

1 / 1 point

☐  $87 / (222 - 94)$

☐  $(222 - 87) / 94$

☐  $222 / (87 + 94)$

☒  $(87 + 94) / 222$

☒ Correct

8. A data professional calculates recall in logistic regression results. They have 99 true positives, 80 true negatives, 7 false positives, and 4 false negatives. What is the calculation for recall?

1 / 1 point

- ☒  $99 / (99 + 4)$
- ☐  $(99 - 7) / (80 - 4)$
- ☐  $(84 + 4) / 80$
- ☐  $80 / (80 + 7)$

☒ Correct