✅ **Congratulations! You passed!**

| Grade received 100% | Latest Submission Grade 100% | To pass 80% or higher | **Go to next item** |

---

1. Fill in the blank: Binomial logistic regression is a technique that models the probability of an observation falling into one of two categories, based on one or more _____ variables.

○ categorical
○ continuous
◉ independent
○ dependent

✅ **Correct**

`1 / 1 point`

---

2. What is the logit formula?

○ Logarithm of 1 plus p divided by p
○ Logarithm of p plus 1 divided by p
◉ Logarithm of p divided by 1 minus p
○ Logarithm of 1 divided by p minus 1

✅ **Correct**

`1 / 1 point`

---

3. What technique estimates the beta parameters that increase the likelihood of the model producing observed data?

○ Accuracy
◉ Maximum likelihood estimation
○ Recall
○ Precision

✅ **Correct**

`1 / 1 point`

---

4. Following the no extreme outliers assumption, when are outliers detected?

○ Either before or after the model is fit
◉ After the model is fit
○ While the model is being fit
○ Before the model is fit

✅ **Correct**

`1 / 1 point`

---

5. What graphical representation demonstrates a classifier's accuracy at predicting the labels for a categorical variable?

◉ Confusion matrix
○ Logistic matrix
○ Logistic graph
○ Likelihood matrix

✅ **Correct**

`1 / 1 point`

---

6. A data professional calculates precision in logistic regression results. They have 89 true positives, 83 true negatives, 3 false positives, and 1 false negative. What is the calculation for precision?

◉ 89 / (89 + 3)
○ (83 + 3) / 89
○ (89 + 1) / 3
○ 89 / (83 + 1)

✅ **Correct**

`1 / 1 point`

---

7. A data professional calculates accuracy in logistic regression results. They have 99 true positives, 91 true negatives, and 248 total predictions. What is the calculation for accuracy?

○ (248 - 99) / 91
◉ (99 + 91) / 248
○ 99 / (248 - 91)
○ 248 / (99 + 91)

✅ **Correct**

`1 / 1 point`

---

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?

○ (84 + 4) / 80
◉ 99 / (99 + 4)
○ 80 / (80 + 7)
○ (99 - 7) / (80 - 4)

✅ **Correct**

`1 / 1 point`