

Feedback — Quiz: Week Two

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You submitted this quiz on **Tue 19 May 2015 12:21 AM PDT**. You got a score of **6.00** out of **6.00**.

Question 1

If predicted values of a model are more accurate when a variable is included in the model, then we feel that the variable _____.

Please select the best response that completes the sentence above.

Your Answer	Score	Explanation
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☐ is not significant

☒ is significant



1.00

Good job!

This may be used as criteria for whether or not you decide to keep a variable in your model during the model building process.

☐ is a good fit

☐ is normally distributed

Total	1.00 / 1.00
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Question 2

The comparison of observed to predicted values using the likelihood function is based on which of the following expressions?

Your Answer	Score	Explanation
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☐ Likelihood of the saturated model

☒ Deviance



1.00

Yes, you got it right!

This is how much the predicted values 'deviate' from the observed value. The deviance statistic can also be used to compare multiple potential models. Those with the lowest deviance statistic are best.

☐ Likelihood of the model

Total 1.00 / 1.00

Question 3

When conducting a likelihood ratio test, if you are comparing two models that differ by two variables, how many degrees of freedom will you have when estimating your chi-square (χ^2) test statistic?

Your Answer **Score** **Explanation**

☐ 1

☒ 2



1.00

Great job!

The degrees of freedom for comparison are the full model compared to the reduced model.

☐ 4

☐ Cannot be determined

Total 1.00 / 1.00

Question 4

When conducting a likelihood ratio test for the variable age, a p-value of .001 indicates which of the following?

Your Answer	Score	Explanation
<input type="radio"/> Age should not be included in the model		
<input checked="" type="radio"/> Age is a significant predictor of the outcome	✓ 1.00	Great job. Because the p-value is less than .05 we know this is significant. This indicates that the model with age is a better model than the naïve model
<input type="radio"/> Age is not a significant predictor of the outcome		
<input type="radio"/> Not enough information provided		
Total	1.00 / 1.00	


Question 5

The covariance between a variable and itself (ex. covariance of age and age) is known as which of the following?

Your Answer	Score	Explanation
<input checked="" type="radio"/> The variance	✓ 1.00	Great job!
<input type="radio"/> The correlation		
<input type="radio"/> The covariance		
Total	1.00 / 1.00	

Question 6

What do you need to do to the confidence interval of the logit in order to get the confidence interval for the probability?

Your Answer	Score	Explanation
<input checked="" type="radio"/> Exponentiate the confidence interval for the logit	 1.00	Nice work! The coefficients you obtain are for the log-odds, therefore you have to exponentiate.
<input type="radio"/> Nothing, they are the same		
<input type="radio"/> Square the confidence interval for the logit		
Total	1.00 / 1.00	