

## Feedback — Quiz: Week Eight

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You submitted this quiz on **Thu 2 Jul 2015 3:28 AM PDT**. You got a score of **6.00** out of **6.00**.

### Question 1

Consider whether the following statement is true or false:

$R^2$  is a good measure of model adequacy for a logistic regression model.

(please answer True or False below)

Your Answer	Score	Explanation
<input type="radio"/> True		
<input checked="" type="radio"/> False	✓ 1.00	Great job! $R^2$ does not compare the fitted model with the saturated model and moreover we only obtain pseudo $R^2$ from the statistical modeling output.
Total	1.00 / 1.00	

### Question 2

Consider whether the following statement is true or false:

Large coefficients and large standard error indicate model adequacy.

(please answer True or False below)

Your Answer	Score	Explanation
<input type="radio"/> True		
<input checked="" type="radio"/> False	✓ 1.00	Good work!

Large coefficients and standard error could be due to zero cell problem or colinearity.

Total	1.00 /
	1.00

### Question 3

If  $\hat{\pi} = 1$  for  $y=1$  and  $\hat{\pi} = 0$  for  $y=0$ , then we have a problem of:

Your Answer	Score	Explanation
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☐ Zero Cell

☒ Complete Separation



1.00

Great job!

We know this from [Slide 13 of the Week Eight notes](#) which has more details on this.

☐ Colinearity

Total	1.00 /
	1.00

### Question 4

*Complete the following statement*

**Large estimated coefficients with opposite sign and very large estimated standard errors indicate...**

Your Answer	Score	Explanation
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☐ Presence of Zero Cell

☒ Colinearity



1.00

Good job!

If there is high correlation in independent variables then the design matrix is almost singular and this causes the bias in estimates.



Complete  
Separation

Total	1.00 /
	1.00

## Question 5

Consider whether the following statement is true or false:

**Substituting the value of the predictors in the fitted logistic regression model will directly give you the estimated probability.**

*(please answer True or False below)*

Your Answer	Score	Explanation
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☐ True



False



1.00

Great work!

Substituting the value of the predictors in the fitted logistic regression model will give you the logit, then you need to convert the logit into estimated probability.

Total	1.00 /
	1.00

## Question 6

Suppose the logit of a fitted logistic regression is 0.6, what would be the estimated probability?

Your Answer	Score	Explanation
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0.926



0.289



1.00

Nice work!

0.646

We know that in order to convert logit into an estimated probability, we must make use of the formula:  $\frac{e^{\text{logit}}}{(1+e^{\text{logit}})}$ .



0.000

Total

1.00 /

1.00