

POLS 6481 - Methods 2 - Lab 5: Suvey Answers

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Overview

1 A Note to Help with Fellowship Applications!

2 Questions 2 - 10

Question 1

Question

Name

Answer

Two names were unreadable without copying to a file editor and saving as a web page, because of the way they were copied and pasted in. **Many fellowship applications are now online and use similar survey formats. This could cost you a fellowship!** So, be careful when you copy text and paste into online applications. To make sure it is readable, copy from a plain text editor like Notepad or TextEdit *in plain text* mode on the Mac.

Question 2

Question

TV and Movies

Answer

There was a wide variety of responses including plenty of people who mentioned a big variety personally. Star Wars, Game of Thrones, Lord of the Rings, anime generally, plenty of comedy, spaghetti westerns, and multiple Quentin Tarantino flicks (but not Kill Bill!) My all time favorite is the original Star Wars.

Question 2: Recommended

- Game of Thrones (NOT Season 8)
- Hot Fuzz
- 12 Angry Men - but which version?
- Once Upon a Time in the West
- Dark (Netflix)
- War of the Worlds - but which version?
- The Good Place
- Tokyo Ghoul (Hulu)
- Anything Tom Hanks or Robin Williams
- Anything Studio Ghibli
- Yellowstone
- Anything by Zhang Yimou or Ang Lee (not just the *wuxia* stuff)
- American Gods (Starz)

Question 3

Question

Questions, errors, etc.

Answer

Covered, but let me know about remaining questions

Question 4

Question

In line 6 of the script, you see the code: `complete < – subset(tickets, tickets$Amount!=" NA")` The worksheet says this is "code to drop all the cases for which no dollar fine was recorded." It does this by removing something that is common to many datasets. What is removed?

Answer

NAs

Explanation

NA (not available) and NaN (not a number) are two values that you'll see a lot that can make R throw fits.

Question 5

Question

Name the object in the function: In line 10 Code: `matrix.b <- vcov(basic); round(matrix.b, digits=5)`, a new object is created containing the variance-covariance matrix of the estimators from the model created in line 8. Using the R help system if needed, what is the "object" in this particular instance of the `vcov` command. That is, don't define object generally, but tell me in one word the name of the object called in this particular case. Hint: type `?vcov` and find where the object goes in the code

Answer

basic

Explanation



Question 6

Question

Two ways to get standard errors in R: Line 11 uses the variance-covariance matrix of the estimators to compute the standard error for Age. Does it match the standard error in the regression summary, aside from rounding difference? What was your result for one of the methods?

Answer

yes

Question 7

Question

Interpreting regression tables: Some journal formats report standard errors in regression summaries instead of t-scores and the number of stars may change meaning from table to table as well. As an informed consumer of political science journals, it is useful to be able to look beyond the stars to conceptualize the test statistics and significance levels. The t-statistic for a single coefficient can be found by dividing the coefficient by what?

Answer

the standard error for the associated variable

Explanation

See next question



Question 8

Question

Critical t-score - no math needed: The data in this exercise has 31674 observations and the basic model has two regressors. Recall that degrees of freedom is $n-k-1$ where k is the number of regressors. Without performing any calculations, what would you expect the critical t-value to be? You can give a whole number, a number to two decimal places, or (hint) just relate it to z-values.

Answer

1.96, or 2, or t-values converge to z-values at large sample sizes.

Explanation

So, if a journal reports standard errors below the coefficients instead of t-scores, for large sample sizes, you can quickly get a



Question 9

Question

content...F-statistics and t-statistics: What is the relationship between the F-test and the t-statistic? (This can be a few words, an equation, a short sentence. No deep theory required.)

Answer

F is the t-statistic squared.

Clarification

This does only apply in the case of ANOVA for two groups.

Question 10

Question

Retrieving specific model elements: You can get specific elements of the summary of a model by using the number assigned to them. This can be useful for use in a function. In more advanced work, this is really useful for passing specific parameters to a new function or specialized R package.

For example, `summary(modelname)[7]` returns the degrees of freedom for the model named, "modelname."

What would you type to get the R-squared for the model named "basic" in the current exercise? The adjusted-R-squared for "basic"? Try your code. What were your results?

Question 10: Answers

- `summary(modelname)[8]`
- `summary(modelname)[9]`
- `.5026`
- `.5026`

Extra Credit

Question

worksheet answers: Fill in the blanks beginning with "Then, write down the following values: Total Sum of Squares (line 36)" on page 3 of the worksheet. Type the values in order, separated by commas. (Please do not cut and past them from the worksheet as the Word formatting is unreadable in Blackboard.)

Answer

(in order): 100198136, 51367739, 48830397, .5126616, 31674, 7, 31666

The End