Feedback — Unit 5 Lab - Inference for Categorical Variables

Help

You submitted this homework on **Sat 5 Apr 2014 12:22 AM PDT**. You got a score of **13.00** out of **13.00**.

INSTRUCTIONS: Read these first before you get started.
Lab instructions can be found in this document.

(You may also find the document at this address:
https://d396qusza40orc.cloudfront.net/statistics%2FDocuments%2FLabs%2FLab_Unit5_Lab5.pdf.)

As you go through the contents of the lab instructions document you will encounter multiple choice questions, make sure to submit your answers to those questions here to get credit.

You may attempt this lab as many times as you like (well, Coursera limits number of attempts at 100, but chances are you won't need that many!).

Notes:

- To complete the lab in RStudio, you will first need to make sure that you have **both** R and RStudio installed. You can download R at http://cran.r-project.org, and RStudio at http://www.rstudio.com/. See this video for step-by-step installation instructions if needed).
- If you prefer to complete the exercises in the interactive web-based DataCamp environment, click here.

Question 1

How many people were interviewed for this survey?

Your Answer		Score	Explanation
A poll conducted by WIN-Gallup International surveyed 51,917 people from 57 countries			
A poll conducted by WIN-Gallup International surveyed 52,000 people from 57 countries			
A poll conducted by WIN-Gallup International surveyed 51,927 people from 57 countries	✔	1.00	
A poll conducted by WIN-Gallup International surveyed 51,000 people from 57 countries			

Total		1.00 / 1.00

Question 2

Which of the following methods were used to gather information?

Your Answer		Score	Explanation
Face to face			
Telephone			
Internet			
All of the above	✔	1.00	
Total		1.00 / 1.00	

Question 3

In the first paragraph, several key findings are reported. These percentages appear to be *sample statistics*.

Your Answer		Score	Explanation
False			
True	✔	1.00	
Total		1.00 / 1.00	

Question 4

The title of the report is “Global Index of Religiosity and Atheism”. To generalize the report’s findings to the global human population, We must assume that the sample was a random sample from the entire population in order to be able to generalize the results to the global human population. This does seem to be a reasonable assumption.

Your Answer		Score	Explanation
True			
False	✔	1.00	
Total		1.00 / 1.00	

Question 5

What does each row of Table 6 correspond to?

Your Answer		Score	Explanation
Countries	✔	1.00	
Individual Persons			
Religions			
Total		1.00 / 1.00	

Question 6

What does each row of atheism correspond to?

Your Answer		Score	Explanation
Individual Persons	✔	1.00	
Religions			
Countries			
Total		1.00 / 1.00	

Question 7

Using the command below, create a new dataframe called us12 that contains only the rows in

atheism associated with respondents to the 2012 survey from the United States. Next, calculate the proportion of atheist responses. [TRUE / FALSE] This percentage agrees with the percentage in Table 6.

Your Answer		Score	Explanation
◉ True	✔	1.00	
○ False			
Total		1.00 / 1.00	

Question 8

Based on the R output, what is the margin of error for the estimate of the proportion of the proportion of atheists in US in 2012?

Your Answer		Score	Explanation
○ The margin of error for the estimate of the proportion of atheists in the US in 2012 is 0.025.			
◉ The margin of error for the estimate of the proportion of atheists in the US in 2012 is 0.0135.	✔	1.00	
○ The margin of error for the estimate of the proportion of atheists in the US in 2012 is 0.05.			
Total		1.00 / 1.00	

Question 9

Which of the following is false about the relationship between p and me.

Your Answer		Score	Explanation
○ The me is maximized when p = 0.5			
○ The me reaches a minimum at p = 0			
◉ The most conservative estimate for calculating a confidence interval occurs when p is set to 1	✔	1.00	

The me reaches a minimum at p = 1		
Total		1.00 / 1.00

Question 10

There is convincing evidence that Spain has seen a change in its atheism index between 2005 and 2012.

Your Answer		Score	Explanation
False	✔	1.00	
True			
Total		1.00 / 1.00	

Question 11

There is convincing evidence that the United States has seen a change in its atheism index between 2005 and 2012.

Your Answer		Score	Explanation
False			
True	✔	1.00	
Total		1.00 / 1.00	

Question 12

If in fact there has been no change in the atheism index in the countries listed in Table 4, in how many of those countries would you expect to detect a change (at a significance level of 0.05) simply by chance? *Hint: Type 1 error.*

Your Answer	Score	Explanation

1		
1.95	✔	1.00
0		
5		
Total		1.00 / 1.00

Question 13

Suppose you're hired by the local government to estimate the proportion of residents that attend a religious service on a weekly basis. According to the guidelines, the estimate must have a margin of error no greater than 1% with 95% confidence. You have no idea what to expect for p. How many people would you have to sample to ensure that you are within the guidelines? *Hint: Refer to your plot of the relationship between p and margin of error. Do not use the data set to answer this question.*

Your Answer		Score	Explanation
2401 people			
9604 people			
At least 9604 people	✔	1.00	
At least 2401 people			
Total		1.00 / 1.00	

Question 14

The following questions are not graded, but your feedback is very much appreciated and immensely useful for the development of the course.

This lab covered material that is covered in the class.

Your Answer	Score	Explanation
Strongly Disagree		

Disagree	
Neutral	
Agree	
Strongly Agree	
Total	0.00 / 0.00

Question 15

The lab improved your understanding of these topics.

Your Answer	Score	Explanation
Strongly Disagree		
Disagree		
Neutral		
Agree		
Strongly Agree		
Total	0.00 / 0.00	

Question 16

The instructions were clear and it was easy to understand what was wanted.

Your Answer	Score	Explanation
Strongly Disagree		
Disagree		
Neutral		
Agree		
Strongly Agree		

Total	0.00 / 0.00

Question 17

The data were relevant and interesting to me.

Your Answer	Score	Explanation
○ Strongly Disagree		
○ Disagree		
○ Neutral		
○ Agree		
○ Strongly Agree		
Total	0.00 / 0.00	

Question 18

The length of time took to complete lab.

Your Answer	Score	Explanation
○ Less than 30 minutes		
○ Between 30 minutes and 1 hour		
○ Between 1 hour and 2 hours		
○ More than 2 hours		
Total	0.00 / 0.00	