Primary Research Question

Do female artists play different kinds of music on Austin City Limits than male artists?

Conduct the Analysis in R

1. Type or copy the script from the the Prepare for the Analysis section into the Script window of R.
2. Select the portion of the code you wish to run, then press "ctrl+ enter."
3. Output can be found in the Console window.

(6/6 points)

1) How many male artists are in the Austin City Limits dataset?

81

81

Answer: 81

Help

2) How many female artists are in the Austin City Limits dataset?

35

35

Answer: 35

3) To determine the proportion of jazz performers that were male, you would divide _____ by _____.

7

7

Answer: 7

13

13

Answer: 13

4) To determine the proportion of males that performed jazz, you would divide _____ by _____.

7

7

Answer: 7

Help

81

81

Answer: 81

Final Check | Save | Hide Answer *You have used 1 of 2 submissions*

(2/2 points)

5) Which table should you look at to determine how many artists performed rock/folk/indie music: genre or gender?

genre **Answer:** genre

6) How many artists performed rock/folk/indie music?

68

68

Answer: 68

Final Check | Save | Hide Answer *You have used 1 of 2 submissions*

(2/2 points)

7) Which of these lines of code provides the probability that a randomly selected artist from the dataset performed rock/folk/indie music?

Help

prop.table(genre) prop.table(genre)

8) What is the probability that a randomly selected artist from the dataset performed rock/folk/indie music?

0.586 0.586

Final Check | Save | Hide Answer *You have used 1 of 2 submissions*

(2/2 points)

9) Which of these lines of code provides the probability that a randomly selected female artist performed rock/folk/indie music?

prop.table(twoway,1) prop.table(twoway,1)

10) What is the probability that a randomly selected *female* artist performed rock/folk/indie music?

0.343 0.343

Final Check | Save | Hide Answer *You have used 1 of 2 submissions*

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(1/1 point)

11) For *genre* and *gender* to be independent, which of the following statements must be true?

- (•) P(rock) = P(rock|female) ✔
- ( ) P(rock)*P(female) = P(rock) + P(female)
- ( ) P(female) = P(rock)/P(female)
- ( ) P(rock)=P(female/rock)

Correct. Two categorical variables are independent if P(A)=P(A|B). In this case, if the probability that an artist plays rock in general is the same as the probability that an artist plays rock given that the artist is either male or female, then the two variables are independent.

Final Check | Save | Hide Answer *You have used 1 of 2 submissions*

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