


**UTAustinX: UT.7.10x Foundations of Data Analysis - Part 1**


Bookmarks

▶ Important Pre-Course Survey

▶ Contact Us

▶ How To Navigate the Course

▶ Discussion Board

▶ Office Hours

▶ Week 1: Introduction to Data

▶ Week 2: Univariate Descriptive Statistics

▶ Week 3: Bivariate Distributions

▼ **Week 4: Bivariate Distributions (Categorical Data)**

**Readings**

Reading Check due Mar 15, 2016 at 18:00 UTC

**Lecture Videos**

Comprehension Check due Mar 15, 2016 at 18:00 UTC

Week 4: Bivariate Distributions (Categorical Data) &gt; Pre-Lab &gt; Conduct the Analysis



Bookmark

Reflect on the Question

**Analyze the Data**

Draw Conclusions

**Primary Research Question**

For artists age 30 or older, 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 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)

1a. How many male artists are in the 30+ year old artist subset of the Austin City Limits dataset?



Answer: 77

1b. How many female artists are in the 30+ year old artist subset of the Austin City Limits dataset?



Answer: 25


2a. To determine the proportion of jazz performers that were male, you would divide \_\_\_\_\_ by \_\_\_\_\_.



Answer: 7

## R Tutorial Videos


## Pre-Lab

Pre-Lab due Mar 15,  
2016 at 18:00 UTC 

## Lab

Lab due Mar 15, 2016  
at 18:00 UTC 

## Problem Set

Problem Set due Mar  
15, 2016 at 18:00 UTC 

► Week 5: Linear  
Functions

 Answer: 11

2b. To determine the proportion of males that performed jazz, you would divide \_\_\_\_\_ by \_\_\_\_\_.

 Answer: 7 Answer: 77

[Click here for a video explanation of how to answer this question.](#)

*You have used 1 of 1 submissions*

(2/2 points)

3a. Which table should you look at to determine how many artists performed rock/folk/indie music: genre or gender?

 Answer: genre

3b. How many artists performed rock/folk/indie music?

 Answer: 61

[Click here for a video explanation of how to answer this question.](#)

*You have used 1 of 1 submissions*

(2/2 points)

4a. Which of these lines of code provides the probability that a randomly selected artist from the dataset performed rock/folk/indie music?

 Answer: prop.table(genre)

4b. What is the probability that a randomly selected artist from the dataset performed rock/folk/indie music?



Answer: 0.598

[Click here for a video explanation of how to answer this question.](#)

*You have used 1 of 1 submissions*

(2/2 points)

5a. Which of these lines of code provides the probability that a randomly selected female artist performed rock/folk/indie music?



Answer: prop.table(twoway,1)

5b. What is the probability that a randomly selected female artist performed rock/folk/indie music?



Answer: 0.320

[Click here for a video explanation of how to answer this question.](#)

*You have used 1 of 1 submissions*

(1/1 point)

6. For genre and gender to be independent, which of the following statements must be true?

☐  $P(\text{rock}) * P(\text{female}) = P(\text{rock}) + P(\text{female})$

☒  $P(\text{rock}) = P(\text{rock} | \text{female})$

☐  $P(\text{female}) = P(\text{rock}) / P(\text{female})$

☐  $P(\text{rock}) = P(\text{female} / \text{rock})$

[Click here for a video explanation of how to answer this question.](#)

*You have used 1 of 1 submissions*

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