



UTAustinX: UT.7.20x Foundations of Data Analysis - Part 2



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Reflect on the Question

Analyze the Data

Draw Conclusions

Primary Research Questions

1. Does a film's rating (PG, PG-13, or R) impact its cost?
2. Does a film's rating (PG, PG-13, or R) influence its IMDB score?

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.


Testing (One Group Means)

- ▶ Week 3: Hypothesis Testing (Two Group Means)


- ▶ Week 4: Hypothesis Testing (Categorical Data)

- ▼ Week 5: Hypothesis Testing (More Than Two Group Means)

Readings


Reading Check due May 03, 2016 at 17:00 UTC 

Lecture Videos

Comprehension Check due May 03, 2016 at 17:00 UTC 

R Tutorial Videos

Pre-Lab

Pre-Lab due May 03, 2016 at 17:00 UTC 

Lab

(3/3 points)

1a. How many PG-rated films are in the dataset?



Answer: 39

1b. How many PG-13-rated films are in the dataset?




Answer: 94

1c. How many R-rated films are in the dataset




Answer: 18

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

Lab due May 03, 2016 at 17:00 UTC 

Problem Set

Problem Set due May 03, 2016 at 17:00 UTC 

You have used 1 of 1 submissions

(7/7 points)

Research Question 1

2a. What is the **average cost**, in millions of dollars, to make each type of film? (no decimal places)

PG=

75



Answer: 75

75

PG-13=

127



Answer: 127

127

R=



Answer: 93

2b. Was the assumption of equal variability met?



Answer: Yes

ANOVA Results

2c. F-statistic (rounded to one decimal place)=



Answer: 13.1

Tukey Test Results

2d. The average budget for a PG-13 film was significantly higher than the budget for a(n) _____ rated film.



Answer: PG

2e. The difference between a PG-13 film and a(n) _____ rated film was almost, but not quite significant, at $p = 0.053$.



Answer: R

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

You have used 1 of 1 submissions

(5/5 points)

Research Question 2

3a. What is the **average IMDB score** for each type of film? (Round to 1 decimal place)

PG



Answer: 7.0

PG-13



Answer: 7.0

R



Answer: 7.2

ANOVA Results

3b. What is the F statistic, rounded to 1 decimal place?



Answer: 0.3

Tukey Test Results

Was a Tukey test necessary for this analysis?



Answer: No

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

You have used 1 of 1 submissions

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