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Analyze the Data

### **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.

(3 points possible)

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

Co	nduct the Analysis   Pre-Lab   UT.7.01x Courseware   edX	https://courses.edx.org/courses/UTAustinX/UT.7.01x/3T2014/courseware/fb7fe
_		
<u>a</u>	Answer: 39	
Пер	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	
	Allower, 10	
	Hide Answer You have used 0 of 2 submissions	
	, and make about a by 2 and masterns	

2 of 7(7 points possible) 02/27/2015 08:02 PM

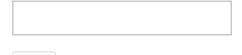
# **Research Question 1**

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

PG=		

<b>Answer:</b>	75
AIISVVCI.	, ,

PG-13=



**Answer:** 127

R=



Answer: 93
2b. Was the assumption of equal variability met?
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: P

**Hide Answer** 

You have used 0 of 2 submissions

(5 points possible)

# **Research Question 2**

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

PG

Help

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Answer: 7.0

PG-13



**Answer:** 7.0

R

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ב ק	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?	
	No	
	Hide Answer You have used 0 of 2 submissions	

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