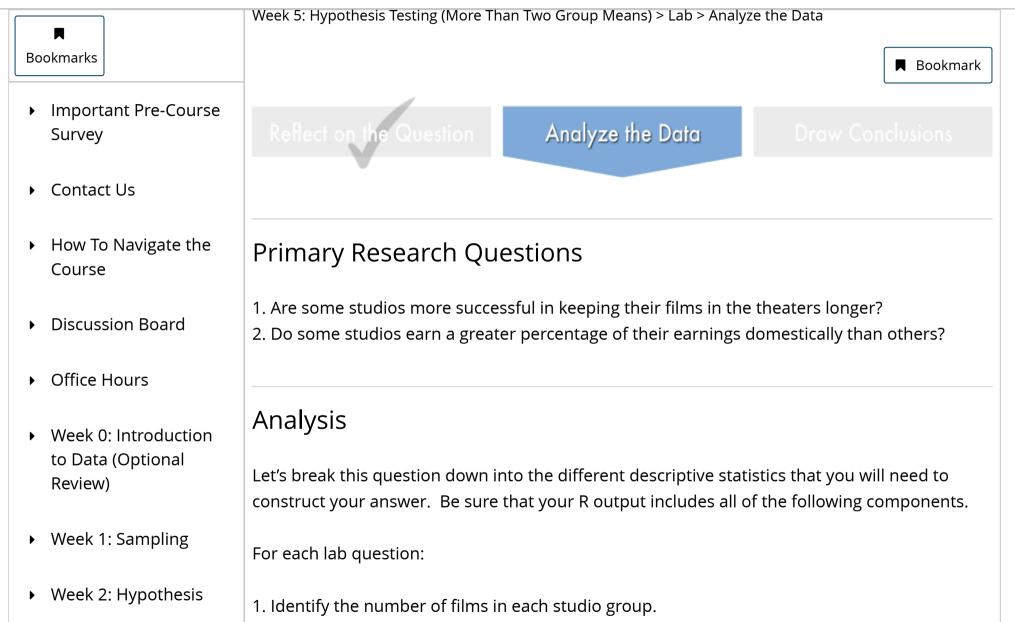
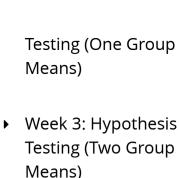


UTAustinX: UT.7.20x Foundations of Data Analysis - Part 2





- 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

- 2. Find the mean and standard deviation of the variable of interest for each group.
- 3. Create boxplots to help visualize group differences and check test assumptions.
- 4. Run ANOVA.
- 5. If the F statistic is significant, run a Tukey HSD test to determine which groups are different.

(5/5 points)

The number of top-grossing films produced by each studio were:

1a. Fox



Answer: 41



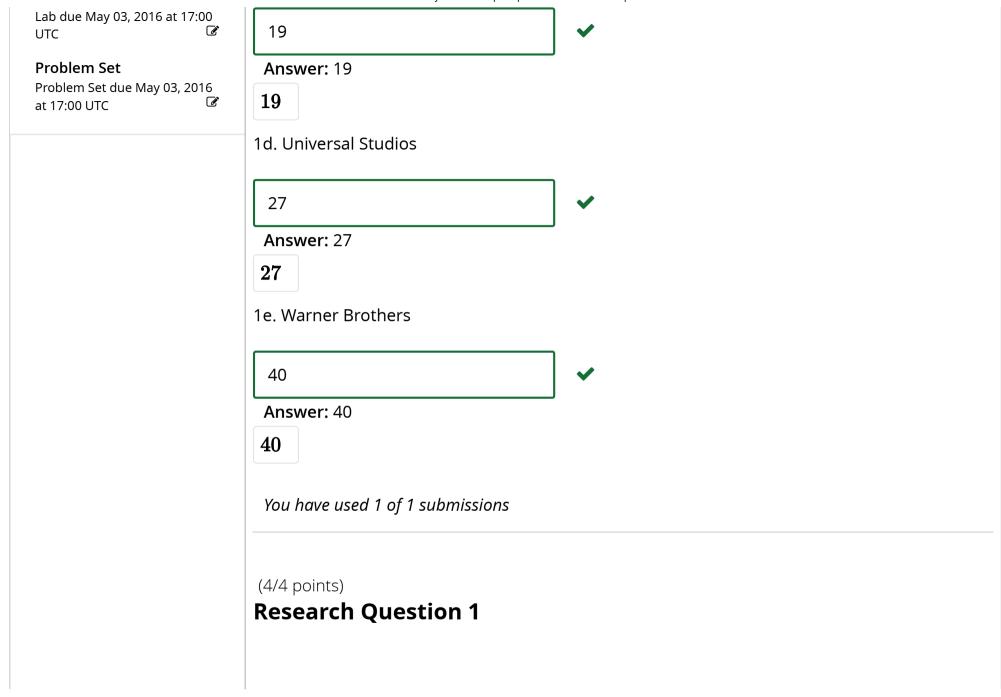
1b. Paramount



Answer: 24



1c. Sony Pictures



2a. Sony films were in studios for the shortest period of time. How many days were they in studios, on average? (round to 1 decimal place)	
113.7	
Answer: 113.7	
113.7	
2b. Fox films were in studios for the longest period of time. How many days were they in studios, on average? (round to 1 decimal place)	
154.5	
Answer: 154.5	
154.5	
ANOVA Results	
2c. What was the F statistic for this hypothesis test? (round to 2 decimal places)	
5.35	
Answer: 5.35	
5.35	
Tukey Results	

2d. We can conclude that films are in theaters longer, on average, than films made by both Sony and Universal.		
Fox Answer: Fox		
You have used 1 of 1 submissions		
(4/4 points) Research Question 2		
3a. Universal films earned the largest percentage of earnings domestically, with a group mean of%. (round to 0 decimal places)		
44 Answer: 44		
44		
3b. Sony films earned the smallest percentage of their earnings domestically, with a group mean of%. (round to 0 decimal places)		

36	✓	
Answer: 36		
36		
ANOVA Results		
3c. What was the F-statistic for this hyp	oothesis test? (round to 1 decimal place)	
2.1	✓	
Answer: 2.1		
2.1		
Tukey Results		
3d. How many group means were significantly different from each other?		
0	✓	
Answer: 0		
0		
You have used 1 of 1 submissions		

(1/1 point)

- 4. Which of the following observations allow you to confirm that the distributions were nearly Normal?
 - The boxplots were not highly skewed.
 - The standard deviations of each group were essentially equivalent.
 - The films in each group were independent of each other.

You have used 1 of 1 submissions

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