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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

Week 2: Hypothesis Testing (One Group Means) > Lab > Analyze the Data



Bookmark

Reflect on the Question

Analyze the Data

Draw Conclusions

Primary Research Question

Do professional bull riders stay on their bulls 50% of the time? Test the hypothesis that the mean ride percentage is 0.500 in 2014, using riders with at least 5 events in 2014.

Analysis

Let's break this question down into the different descriptive statistics that you will need to construct your answer. Be sure that your R output includes all of the following components.

1. Select the riders that participated in at least 5 events in 2014.
2. Calculate the sample mean and standard deviation of ride percentage in 2014.
3. Generate a histogram to look at the distribution of the ride percentage in 2014.
4. Confirm the assumptions of a one-sample t-test.
5. Run the t-test and interpret the results.

(2 points possible)

Descriptive Statistics

1a. What was the **average** ride percentage in 2014 for this sample? (*Round to 3 decimal places.*)

152.175

✗ Answer: .335

152.175

Lab due May 03, 2016
at 17:00 UTC

Problem Set

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

1b. What was the **standard deviation** of ride percentage in 2014 for this sample? (Round to 3 decimal places.)

✗ Answer: .107

You have used 1 of 1 submissions

(2/3 points)

Test Statistics

2a. What is the value of the **t-statistic**? (Round absolute value to 2 decimal places.)

✗ Answer: 10.05

2b. How many **degrees of freedom**?

✓ Answer: 41

2c. The **p-value** was _____ 0.001.

less than ▼

✓ Answer: less than

You have used 1 of 1 submissions

(1/1 point)

3. What **decision** should you reach, based on these test results?

☐ fail to reject the null hypothesis

☒ reject the null hypothesis ✓

You have used 1 of 1 submissions

(1/1 point)

What is the appropriate conclusion for this test?

- ☐ Professional bull riders do stay on their bulls 50% of the time.
- ☒ Professional bull riders do not stay on their bulls 50% of the time.

*You have used 1 of 1 submissions*

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