Primary Research Questions

1. Do students at UT spend more time on homework per week in college than they did in high school?
2. Do students in fraternities and sororities get less sleep on the weekends than other college students?

Analysis

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

For each hypothesis test,

1. Create vectors of the scores that you wish to analyze.
2. Check the assumption of normality by generating a histogram for each variable of interest.
3. Find the t-statistic and p-value.

4. Interpret the results of each test.

NOTE: If you are running ***directional*** hypotheses tests, remember that you must modify the code to reflect this direction.
A one-sided test looks like this:
t.test(Variable1, Variable2, alternative = 'less'), when you expect Mean1 < Mean2
t.test(Variable1, Variable2, alternative = 'greater'), when you expect Mean1 > Mean2

Help

(5 points possible)

Lab Question 1

1a. On **average**, students spent how many hours more on homework each week in college than they did in high school? (round to 1 decimal)

Answer: 11.0

1b. What was the **t-statistic** for this test? (round to 2 decimal places)

Answer: 16.81

1c. How many **degrees of freedom**? (no decimal places)

Answer: 213

1d. What was the **p-value**?

less than 0.05

1e. Based on these test results, we would conclude that students _____ spend more time on homework in college than they did in high school.

do

Hide Answer

(5 points possible)

Lab Question 2

2a. On average, students who are not Greek sleep how many hours **more** than Greek students on Saturday nights? (report to 1 decimal place)

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Answer: 0.3

2b. What is the **t-statistic** for this test? (report to 3 decimal places)

Answer: -0.981

2c. How many **degrees of freedom**? (round to no decimal places)

Answer: 63

2d. What was the **p-value**? (report to 3 decimal places)

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Answer: 0.165

2e. Based on these results, we could conclude that people who are in fraternities or sororities _____ get less sleep on the weekends than other college students.

[ ] do not

Hide Answer

(1 point possible)

3. The **Normality** assumption [ ] was met in each hypothesis test.

Hide Answer

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