New research suggests that watching television especially medical shows such as grays’ anatomy and house can result in more concern about personal health. Surveys administered to college students measure television viewing habits and health concerns such as fear of developing diseases and disorders seen on television. For the following data, students are classified into three categories based on their television viewing patterns and health concerns are measured on a 10-point scale with “0” indicating “none.”

Television Viewing

Little or none- 4,2,5,1,3,7,4,4,8,2

Moderate- 5,7,3,4,8,6,2,7,3,5

Substantial- 5,7,6,6,8,9,6,4,6,8

1.What are the Sum of Squares between (SSB)?

2. What is the degress of freedom within (dfW)?

There is some research indicating that college students who use Facebook while studying tend to have lower grades than non-users (Kirschner & Karpinski, 2010). A representative study surveys students to determine the amount of Facebook use during the time they are studying or doing homework.  Based on the amount of time spent on Facebook, students are classified into three groups and their grade point averages are recorded.  The following data show the typical pattern of results.

|  |  |  |
| --- | --- | --- |
| Facebook Use While | Studying |  |
| Non-User | Rarely Use | Regularly Use |
| 3.7 | 3.51 | 3.02 |
| 3.45 | 3.42 | 2.84 |
| 2.98 | 3.81 | 3.42 |
| 3.94 | 3.15 | 3.10 |
| 3.82 | 3.64 | 2.74 |
| 3.68 | 3.20 | 3.22 |
| 3.90 | 2.95 | 2.58 |
| 4.00 | 3.55 | 3.07 |
| 3.75 | 3.92 | 3.31 |
| 3.88 | 3.45 | 2.80 |
| M = 3.71 | M = 3.46  | M = 3.01 |
| s = 0.30  | s = 0.30 | s = 0.27 |

Use an ANOVA with α = .05 to determine whether there are significant differences among the three groups.  If applicable, perform a Tukey's HSD to determine the nature of the differences.

3. What is the Mean Square Within (MSW)?

4. Using the instructions provided in the lectures and the handouts in Moodle, provide an appropriate decsion statement for #22 using APA format.

Not your opinion, APA format!

Answer:

5. What is the Mean Square Between (MSB)?

6. Using the instructions provided in the lectures and the handouts in Moodle, provide an appropriate decsion statement for #23 using APA format.

Not your opinion, APA format!

Answer:

7. What is the mean square between value (MSB)?

8. What is your calculated F-ratio?

9. What is the mean square within (MSW)?

(Number 8)

|  |  |
| --- | --- |
|              X |             Y |
| 1 | 6  |
| 4  | 1  |
| 1  | 4  |
| 1  | 3  |
| 3  | 1  |

1. Compute the Pearson Correlation

2. Is the correlation significant? Assume alpha = .05 and two tails.

3. In the following essay question, please write the decision statement for the findings of this correlation study in APA format.

|  |  |  |
| --- | --- | --- |
| What is the computed correlation coefficent for the X and Y variable for this problem? |                                       |  |
| What is the df? |                                       |  |
| What is the "r" critical value from Table B.6 p. 709? |                                       |  |
| Is this correlation significant? |                                       |  |

please provide a decision statement using APA format as described in your text

Judge and Cable (2010) report the results of a study demonstrating a negative relationship between weight and income for a group of women professionals.  Follwoing are data similar to those obtained in the study.  To simplify the weight variable, the women are classified into five categories that measure the actual weight relative to height, from 1 - thinnest to 5 - heaviest.  Income figures are annual income (in thousands), rounded to the nearest $1,000.

A. Calculate the Pearson correlation for these data.

B. Is the correlation statistically significant? Use a two-tailed test with α = .05.

|  |  |
| --- | --- |
| Weight (X) | Income(Y) |
| 1 | 125 |
| 2 | 78 |
| 4 | 49 |
| 3 | 63 |
| 5 | 35 |
| 2 | 84 |
| 5 | 38 |
| 3 | 51 |
| 1 | 93 |
| 4 | 44 |
| What is the Pearson Correlation coefficeint for part a of this question? |                                       |  |
| What are the degrees of freedom for this test? |                                       |  |
| What are the critical boundaries for this test? |                                       |  |

 please provide an APA formatted decision statement.

Identifying individuals with a high risk of Alzheimer's disease usually involves a long series of cognitive tests.  However, researchers have developed a 7-Minute Screen, which is a quick and easy way to accomplish the same goal.  The question is whether the 7-Minute Screen is as effective as the complete series of tests.  To address this question, Ijuin et al. (2008) administered both tests to a groups of patients and compared the results.  The following data represent results similar to those obtained in the study.

|  |  |  |
| --- | --- | --- |
| Patient | 7 Min Screen | Cognitive Series |
| A | 3 | 11 |
| B | 8 | 19 |
| C | 10 | 22 |
| D | 8 | 20 |
| E | 4 | 14 |
| F | 7 | 13 |
| G | 4 | 9 |
| H | 5 | 20 |
| I | 14 | 25 |

A. Compute the Pearons correlation to measure the degree of relationship between the two test scores.

B. Is the correlation statistically significant? Use a two-tailed test with α = .01.

|  |  |  |
| --- | --- | --- |
| What is the correlation coefficent for the 7-Minute Screen and Cognitive Series |                                       |  |
| What is the "r" critical value to determine if this correlation is significant? |                                       |  |
| Is this correlation significant? |                                       |  |
| How would you report the "stats" in the decision statement in APA format for this procedure? |                                       |  |

please provide an APA formatted decision statement.