Assignment 1

Using the datafile “Dataset2.sav” you are asked to investigate whether there is a statistical difference between men and women (q9) regarding how many hours they spend on homework (q5). (t-test).

Assignment 2

A factory produces 3 different kinds of soap. The factory has a machine which measures the purity of the soap. The purity for the three different is shown in the table below (the higher the better).

|  |  |  |
| --- | --- | --- |
| Soap 1 | **Soap 2** | **Soap 3** |
| 73 | 80 | 91 |
| 70 | 64 | 94 |
| 71 | 74 | 95 |
| 68 | 81 | 81 |
| 66 | 85 | 96 |
| 75 | 82 | 100 |
| 77 | 75 | 81 |

You should type in the data in SPSS manually and test whether or not there is a significant difference in the soap purity between the three kinds of soap.

If there is a significant difference in the soap quality, which soap should then be produces by the factory?

Test whether the assumptions hold.

Assignment 3

Open the dataset “Assigment.sav”. You should estimate the following regression:

Write down the final model and test the assumptions below

1. Residuals are normally distributed
2. Expected value of the residuals equals 0
3. Are there any problems with the multicollinearity

Assignment 4

Using the datafile “Dataset2.sav” is there any relationship between your study program (q7) and your gender (q9)?

1. Does it look like there is any dependency? (Crosstab analysis)
2. By using a chi square test, test if it possible to reject the H0 about independency between study program and your gender.
3. If you reject the H0, then investigate the strength of the relationship (Use Cramer’s V)