Tutorial 6: Statistical Tests

Use data in the dat1.xlsx file to work out the following exercises.

Tut 6.1. Test if the data collected for the variable BMI support the hypothesis that the mean BMI of the patients is 24

Tut 6.2. Perform a graphical diagnostic for assessing the departure of the variable BMI from normality using am histogram, a boxplot and a qq-plot

Tut 6.3. Test if the data collected for the variable BMI support the hypothesis that the mean BMI of the male and female patients are equal.

Tut 6.4. Repeat the test for the median of the two groups.

Tut 6.5. Perform a graphical diagnostic for assessing the departure of the variable BMI from normality using am histogram, a boxplot and a qq-plot within each single gender group.

Tut 6.6. Perform the Shapiro-Wilks test for assessing normality of BMI both in the male and female subgroups and in the entire sample.