# Exercise 2

## Task 1

1. Define a vector `x` containing 100 values between 0 and 10.
2. Define a second variable `y` using `sin(x)`.
3. Plot both variables in a scatter plot with the according x and y axis. Use the additional argument `pch = 20`. What does it do?
4. Do the same, but swap the axis now. However, the axis name should stay the same as before.
5. Now, do the same as a line plot. Add a title. Add the additional argument `lty = 2`.
6. Combines a scatter and a line plot: make a scatter plot and use the `lines()` function to add a line.
7. Create a new variable `x <- c(1:10, 1:20, 1:30, 1:40, 1:50)`. Plot a histogram using 5 breaks.
8. Add a line to the histogram with x-axis values `1:50` and y-axis values `50:1`. Use the additional argument `lwd = 2`.
9. Define a data set using the command `df <- data.frame(x = c(rnorm(100), rexp(100)), group = rep(1:2, each = 100))`.
10. Make a Boxplot of the variable `x`.
11. Make a Boxplot for both variables.