

For exercises 1-5 please install and load the "PBImisc" package. All of the following exercises use the data from the "kidney" variable from that package. All of the exercises 1-5 should be solved using functions from the "lattice" package.

Exercise 1. Draw a point graph with the dependent variables "MDRD12" and "MDRD36" and the independent variable "MDRD7", grouped by whether "disperency.DR" is equal to 0, with a helping lattice added.

Exercise 2. Draw a matrix of two by two comparisons of variables "MDRD7", "MDRD3", "MDRD12" and "MDRD36" in forms of point graphs.

Exercise 3. Draw the density plots for the variable "MDRD12" grouped by the therapy variable, collected on one graph.

Exercise 4. Draw a boxplot showing the relation between the variables "therapy" and "MDRD12", grouped by "discrepancy".

Exercise 5. Draw a 3D point graph of the parameters "MDRD7", "MDRD30" and "MDRD12" grouped by the "diabetes" variable.

For exercises 6-8 please install and load the "Przewodnik" package. All of the following exercises use the data from the "countries" variable from that package.

Exercise 6. Using the function ggplot from the package ggplot2, create a point graph in which the axes of the graph are related to the birth and death rate in countries, each point is of a size related to the size of the population of the country it represents and the color of the point is related to the continent from which it is from.

Exercise 7. Using the function ggplot from the package ggplot2, create a graph with the independent variable being the continents on which the countries lie, and the dependant variable being the birth rate of the country, which combines the dependencies in the form of a box plot, violin plot and a dot plot on one graph.

Exercise 8. Using the function ggplot from the package ggplot2, create two graphs with the independent variable being the birth rate, and the dependant variable being the death rate of the country, each point should represent the continent from which the country origins. In one graph the continents should be represented by capital letters, in the second by hollow shapes.