Exercise 10

In the following, consider the dataset `cabbages` in the package `MASS` and use appropriate functions from the packages `lattice` and/or `ggplot2`.

(a) Compare the weight of the cabbages between the two cultivars with an appropriate graphical tool, separately for each planting date.

(b) Analyze the relationship of weight and vitamin C content with an appropriate graphical tool, separately for each cultivar.

Exercise 11

Consider the results of the olympic heptathlon competition in Seoul 1988 documented in the dataset `heptathlon` (in the package `HSAUR2`).

(a) Visualize the data with a scatter plot matrix and interpret the result.

(b) Delete the Athlet with lowest score from the dataset and repeat (a).

(c) Delete the variable `score` from the dataset and standardize the data (e.g. by using the function `scale()` in R). Standardization is supposed to be performed by subtracting the variable-specific mean and dividing by the variable-specific standard deviation.

(d) Visualize the standardized data with a heatmap and interpret the result.