A brief introduction to R

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## Assign a value to a variable

* x is assigned the value 5 by using <-
* to variables are added using +

x <- 5  
y <- 3  
x+y

## [1] 8

# functions

all functions are called by their name and the bracket () behind

x <- c(1,3,4,6,7)  
mean(x)

## [1] 4.2

* c() is a function that combinde elements of the same type. Here it makes a vector with 5 numbers
* mean() is a predifined function that find the mean of the vector in the brackets.

## Assign a matrix with desired number of rows and column

* use the function matrix() to define an empty matrix m with 5 columns and 3 rows

m <- matrix(NA, ncol = 5, nrow = 3)

We give the matrix m column and row names by using the function colnames() and rownames().

colnames(m) <- c("col\_1", "col\_2", "col\_3", "col\_4", "col\_5")  
rownames(m) <- paste0("row\_", 1:3)

the column names are here combined using the function c() while to make the row names the function paste0 are used the resulting rownames can be found by using the function rownames without assigning any values

rownames(m)

## [1] "row\_1" "row\_2" "row\_3"