**Cheat-sheet**

Data-typs:

* **text = 'Hello':** this is a character/char (each letter is one “data point”)
* **text = "Hello":** this is a string (each word is one “data point”)
* **a = [2 3 4**]: declares a row vector
* **b = [2; 3; 4**]: declares a column vector
* **b = b':** with ' we can flip a vector
* **a(2):** this returns the value on position two in **a**
* **b(2) = []:** this clears an entry of a variable
* **C = [1 2 ;3 4]:** matrix (variable names are usually capitalized)
* **boolYeay = true:** a Boolean/bool is variable which is either true or false

useful short cuts:

* strg + enter: runs the code in a section
* strg + R: comments the line(s) you marked
* strg + T: uncomments the line(s) you marked

useful commands:

* **close all:** closes all windows (for example plots)
* **clear all:** deletes all variables in the workspace
* **clc:** deletes everything in the command window

Basic functions:

* **exp(x):** Euler's number
* **sqrt(x):** square root
* **ones(x):** creates a matrix of ones
* **rand(x):** generates random numbers between 0 and 1
* **disp('Hello'):** prints what is inside the ' ' to the console
* **length(x):** returns the length of the vector/list/array
* **round(x):** rounds to the next decimal value
* **max(x):** returns the maximum of the vector/list/array
* **min(x):** returns the minimum of the vector/list/array

all about plotting:

* **plot**(x,y): plots y vs x
* **xlabel**('x-axis'): labels the x-axis
* **ylabel**('random numbers'): labels the y-axis
* **title**('first plot'): adds a title to a plot
* **legend**('parabula'): adds a legend to a plot
* data = **readtable**('exampleData.csv'): reads data of a .csv or .txt file
  + data = **table2array**(data): turns data into a numeric array