1

a

'a'

'1'

class (1) - numerical

class('1') - character

as.numeric('1') + as.numeric('2') – add 1 + 2

1; 2; 'a' – run all 3 at the same time

2 + 1

2 - 1

2 \* 1

2 / 1

3 < 2

3 == 1+2

3 != 1+2 - # != means “not equal to”

'A' == 'a' # R Is case sensitive

# Variables #

a<- 3

a

b = 3 #Not recommended

b

var1 <- "aaa"; var1 #String

var2 <- 111; var2 #Number

var3 <- Sys.Date(); var3 # Date

class(var1)

class(var2)

class(var3)

num1 <- 1

num2 <- 2

num1 + num2

num3 <- '3'

num1 + num3 # IT’s an error

num1 + as.numeric(num3) # Convert Strings to number

#Vectors#

vec1 <- 1:5; vec1

vec2 <- seq(1,5); vec 2 #same as vec1

vec3 <- c(4,9,3,2,8); vec3

vec4 <- c('a','b','c'); vec4

vec5 <- c(4,'a'); vec5

class(vec5)

vec1\*3

vec1\*vec3

vec6 <- vec1 \* vec3; vec6

vec6[3] #access the number inside the vector

vec6[-3] #see all other elements beside element in the third position

vec6[2:4]

vec6[c(3,5)]

vec6[4] <- 20 ; vec6 #change the position 4 number to 20

names(vec6) <- c("First", "Second", "Third", "Fourth", "Fifth")

vec6

vec6["Second"] #Same as vec6[2]

vec6["Second"] <- 50

vec6["Second"]

length (vec6) #number of elements

#variable management#

objects() #Display all variables created

rm(a); rm(vec1) #Remove a variable from the memory

objects()

rm(list=ls()) # Remove all the variables in the memory

objects()

#Functions#

log(10)

help(log) #Get the usage of a function

log(4, base=2)

example (log) #Display examples of a function