

Bioinformatic resources - intro

Francesco Penasa

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assigning values to variables

a <- 1

b <- 2

c <- -1

solving the quadratic equation

$(-b + \sqrt{b^2 - 4ac}) / (2a)$

$(-b - \sqrt{b^2 - 4ac}) / (2a)$

HELP

help(function_name)

create a sequence of numbers from 1 to 10

seq(1, 10)

sum all number in the function

sum(2, 3)

log

log2(16)

square root

sqrt(4)

exponential

2^4

e (e^2)

exp(2)

loading package dslabs and the murders dataset

library(datasets)

data(cars)

find the class of the object

class(cars)

```

# observe the structure
str(cars)

# show the head or tail
head(murders)
tail(murders)

# obtain the column 'speed'
cars$speed

# obtain name of the columns
names(cars)

# obtain the values once
vaules(cars[["speed"]])

# length
length(cars$dist)

# obtain the column 'speed' with brackets
cars[["speed"]]

# check if equals
identical(a, b)

# return the occurencies of unique elements (works with things on which levels work)
table(c("a", "a", "b"))

# create a vector with concat function
vec1 <- c(1, 2, 3)
vec2 <- c("a", "b", "c")

#_3d_vector
vec_3d<-c(a=1,_b=2,_c=3)

#_access_second_elem_of_array
codes[2]

#_access_elem_1_and_3
codes[c(1,3)]

#_access_elem_from_1_to_two_(included)
codes[1:2]

#_cast
as.character()
as.numeric()

```

```
# sort a vector
sort()

# produce a vector with the order of the elements
order()

# inverse of sort
rank()

# quantitative functions
max()
min()

# return the index
which.max()
which.min()

# create a logical vector
logical_vector <- grep('a | e | u',_vec)
```