RWorksheet_Sorenio#3a.Rmd

2024-09-30

Using Vectors

1. There is a built-in vector LETTERS contains the uppercase letters of the alphabet and letters which contains the lowercase letters of the alphabet.

a

```
II_letters <- LETTERS[1:11]
II_letters
```

b

```
odd <- LETTERS[seq(1, 26, by = 2)] odd
```

c

```
vowels <- LETTERS[c(1, 5, 9, 15, 21)]
vowels
```

d

```
lastfivelc <- letters[22:26]
lastfivelc
```

e

```
lc15_to_24 <- letters[15:24]
lc15_to_24
```

2

a

city <- c(“Tuguegarao City”, “Manila”, “Iloilo City”, “Tacloban”, “Samal Island”, “Davao City”)
city

b

temp <- c(42, 39, 34, 34, 30, 27)
temp

c

ct <- data.frame(city, temp)
ct

d

names(ct) <- c(“City”, “Temperature”)
ct

e

str(ct)

f

ct[3:4,]
ct

g

ct[which.max(ct$Temperature),]
ct

Using Matrices

2

a

mat <- matrix(c(1:8, 11:14), nrow = 3, ncol = 4)

mat

b

mattimes <- mat * 2

mattimes

c

mat[2,]

d

mat[1:2, 3:4]

e

mat[3, 2:3]

f

mat[, 4]

g

rownames(mattimes) <- c(“isa”, “dalawa”, “tatlo”) colnames(mattimes) <- c(“uno”, “dos”, “tres”, “quatro”)

mattimes

h

dim(mat) <- c(6, 2)

mat

Using Arrays

3

a

nvalues <- rep(c(1, 2, 3, 6, 7, 8, 9, 0, 3, 4, 5, 1), times = 2)

array_3d <- array(nvalues, dim = c(2, 4, 3))

array_3d

b. To check how many dimensions the array have

dim(array_3d)

c

dimnames(array_3d) <- list(c("a", "b"), c("A", "B", "C", "D"), c("1st-Dimensional Array", "2nd-Dimensional Array", "3rd-Dimensional Array"))

array_3d