4.1_ejercicio-correlacion.R

Usuario

2023-11-29

```
# Gildardo Gracia Rocha
# 28/08/2023
# Matricula: 2070834

#CONJUNTO DE DATOS PARA CORRELACION

#Creacion d la base

x <- c(10.0,8.0,13.0,9.0,11.0,14.0,6.0,4.0,12.0,7.0,5.0)

y <- c(7.46,6.77,12.74,7.11,7.81,8.84,6.08,5.39,8.15,6.42,5.73)

# crear un data frame con las variables x and y ------------------------
--

d3 <- data.frame(x,y)

# estadisticas descriptivas --------------------------------------------
--

mean(d3$x)

## [1] 9

var(d3$x)

## [1] 11

mean(d3$y)

## [1] 7.5

var(d3$y)

## [1] 4.12262

# aplicacion de la correlacion  ----------------------------------------
--

cor.test(d3$x, d3$y)

##
##  Pearson's product-moment correlation
```

```
##
## data:  d3$x and d3$y
## t = 4.2394, df = 9, p-value = 0.002176
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.4240623 0.9506547
## sample estimates:
##       cor
## 0.8162867

# grafica ------------------------------------------------------------------
--

plot(d3$x, d3$y,
     pch=19,
     xlab = "valor de x",
     ylab = "valor de y",
     col= "skyblue",
     text(6,10, "r=0.8162"))
```