

## clase\_4.R

USUARIO

2024-05-30

```
# Arleth Alexandra Fernandez Flores
# 2072813
# 20/05/2024

# Experimento ganancia en peso (GP) basado en diferentes dietas
# Niveles de factor: 4(die1, die2, die3, die4)

die1 <- c(2.4, 2.2, 3.3, 1.6)
die2 <- c(2.2, 1.9, 1.3, 2.5)
die3 <- c(3.4, 1.7, 2.8, 1.4)
die4 <- c(1.6, 2.1, 2.1, 2.4)

# Sumatoria de grupos/bloques
# Para peso bajo sumar la ganancia en peso
sum(die1[1]+die2[1]+die3[1]+die4[1])

## [1] 9.6

sum(die1[2]+die2[2]+die3[2]+die4[2])

## [1] 7.9

sum(die1[3]+die2[3]+die3[3]+die4[3])

## [1] 9.5

sum(die1[4]+die2[4]+die3[4]+die4[4])

## [1] 7.9

# sumatoria de las dietas independienetes de grupo/bloque
sum(die1); sum(die2); sum(die3); sum(die4)

## [1] 9.5

## [1] 7.9

## [1] 9.3

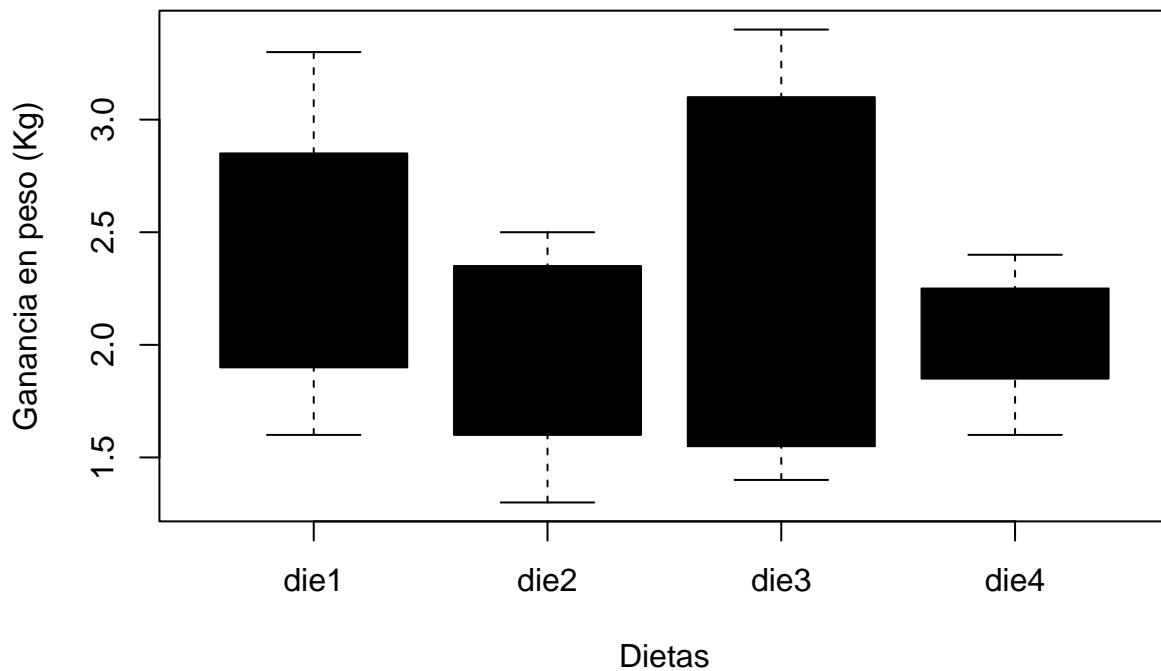
## [1] 8.2
```

```
GP <- c(die1, die2, die3, die4)
Trat <- gl(4,4,16, labels = c("die1","die2","die3","die4"))
Bloq <- gl(4,4,16, labels = c("Bajo","Normal","SP", "OB"))

Dietas <- data.frame(Trat,Bloq,GP)
head(Dietas)
```

```
##   Trat   Bloq GP
## 1 die1   Bajo 2.4
## 2 die1   Bajo 2.2
## 3 die1   Bajo 3.3
## 4 die1   Bajo 1.6
## 5 die2 Normal 2.2
## 6 die2 Normal 1.9
```

```
boxplot(Dietas$GP~Dietas$Trat,
        col = "black",
        xlab = "Dietas",
        ylab = "Ganancia en peso (Kg)")
```



```
tapply(Dietas$GP, Dietas$Trat, var)
```

```
##      die1      die2      die3      die4
## 0.4958333 0.2625000 0.8758333 0.1100000
```

```
fligner.test(Dietas$GP, Dietas$Trat)
```

```
##  
## Fligner-Killeen test of homogeneity of variances  
##  
## data: Dietas$GP and Dietas$Trat  
## Fligner-Killeen:med chi-squared = 5.6745, df = 3, p-value = 0.1286
```

```
bartlett.test(Dietas$GP, Dietas$Trat)
```

```
##  
## Bartlett test of homogeneity of variances  
##  
## data: Dietas$GP and Dietas$Trat  
## Bartlett's K-squared = 2.789, df = 3, p-value = 0.4253
```

```
diet.aov <- aov(Dietas$GP~Dietas$Trat)  
summary(diet.aov)
```

```
##           Df Sum Sq Mean Sq F value Pr(>F)  
## Dietas$Trat  3  0.472  0.1573   0.361  0.782  
## Residuals   12  5.232  0.4360
```