**Ejercicio 1 – Hoja 7**

Hombres <- c(400, 100, 500)

Mujeres <- c(600, 400, 500)

Tabla1 <- as.table(rbind(Hombres,Mujeres))

dimnames(Tabla1) <- list(c("Hombres","Mujeres"),c("En contra", "Indeciso/a", "A favor"))

Tabla1

chisq.test(Tabla1)

> Tabla1

 En contra Indeciso/a A favor

Hombres 400 100 500

Mujeres 600 400 500

> chisq.test(Tabla1)

 **Pearson's Chi-squared test**

data: Tabla1

X-squared = 125, df = 2, p-value < 2.2e-16

**Ejercicio 2.**

Vacunados <- c(4, 96)

NoVacunados <- c(6, 94)

Tabla2 <- as.table(rbind(Vacunados,NoVacunados))

dimnames(Tabla2) <- list(c("Vacunados","No Vacunados"),c("Enfermeron ", "No enfermeron"))

Tabla2

chisq.test(Tabla2)

> Tabla2

 Enfermeron No enfermeron

Vacunados 4 96

No Vacunados 6 94

> chisq.test(Tabla2)

 **Pearson's Chi-squared test with Yates' continuity correction**

data: Tabla2

X-squared = 0.10526, df = 1, p-value = 0.7456

**Ejercicio 3.**

Sanos <- c(8, 46, 20, 126)

Enfermos <- c(5, 35, 8, 152)

Tabla3 <- as.table(rbind(Sanos,Enfermos))

dimnames(Tabla3) <- list(c("Sanos","Enfermos"),c("AB","A","B","O"))

Tabla3

chisq.test(Tabla3)

> Tabla3

 AB A B O

Sanos 8 46 20 126

Enfermos 5 35 8 152

> chisq.test(Tabla3)

 **Pearson's Chi-squared test**

data: Tabla3

X-squared = 9.7606, df = 3, p-value = 0.02071

**Ejercicio 4.**

ninos <- c(86, 69, 72, 65, 113, 65, 118, 45, 141, 41, 50, 104)

ninas <- c(55, 40, 22, 58, 16, 7, 9, 16, 26, 36, 20, 15)

a)

> ks.test(ninos,ninas)

 **Two-sample Kolmogorov-Smirnov test**

data: ninos and ninas

D = 0.83333, p-value = 0.0004807

alternative hypothesis: two-sided

Warning message:

In ks.test(ninos, ninas) : cannot compute exact p-value with ties

b)

wilcox.test(ninos,ninas)

 **Wilcoxon rank sum test with continuity correction**

data: ninos and ninas

W = 138, p-value = 0.0001548

alternative hypothesis: true location shift is not equal to 0

Warning message:

In wilcox.test.default(ninos, ninas) :

 cannot compute exact p-value with ties

library(exactRankTests)

wilcox.exact(ninos,ninas)

 **Exact Wilcoxon rank sum test**

data: ninos and ninas

W = 138, p-value = 2.071e-05

alternative hypothesis: true mu is not equal to 0

library(coin)

wilcox\_test(c(ninos,ninas)~as.factor(c(rep(1,length(ninos)),rep(2, length(ninas)))))

 **Asymptotic Wilcoxon-Mann-Whitney Test**

data: c(ninos, ninas) by

 as.factor(c(rep(1, length(ninos)), rep(2, length(ninas)))) (1, 2)

Z = 3.8122, p-value = 0.0001378

alternative hypothesis: true mu is not equal to 0

**Ejercicio 5.**

MarcaA <- c(11.5, 10.8, 11.6, 9.4, 12.4, 11.4, 12.2, 11, 10.6, 10.8)

MarcaB <- c(11.8, 12.6, 12.2, 12.5, 11.7, 12.1, 10.4, 12.6)

a) ks.test(MarcaA,MarcaB)

 **Two-sample Kolmogorov-Smirnov test**

data: MarcaA and MarcaB

D = 0.675, p-value = 0.03484

alternative hypothesis: two-sided

Warning message:

In ks.test(MarcaA, MarcaB) : cannot compute exact p-value with ties

b) wilcox.test(MarcaA,MarcaB)

 **Wilcoxon rank sum test with continuity correction**

data: MarcaA and MarcaB

W = 16.5, p-value = 0.04068

alternative hypothesis: true location shift is not equal to 0

Warning message:

In wilcox.test.default(MarcaA, MarcaB) :

 cannot compute exact p-value with ties

wilcox.exact(MarcaA,MarcaB)

 **Exact Wilcoxon rank sum test**

data: MarcaA and MarcaB

W = 16.5, p-value = 0.03624

alternative hypothesis: true mu is not equal to 0

wilcox\_test(c(MarcaA,MarcaB)~as.factor(c(rep(1,length(MarcaA)),rep(2, length(MarcaB)))))

 **Asymptotic Wilcoxon-Mann-Whitney Test**

data: c(MarcaA, MarcaB) by

 as.factor(c(rep(1, length(MarcaA)), rep(2, length(MarcaB)))) (1, 2)

Z = -2.0913, p-value = 0.0365

alternative hypothesis: true mu is not equal to 0