**Ejemplo 3.1**

Naccidentes <- c(0, 1, 2, 3, 4, 5, 6, 7)

Ndias <- c(22, 53, 58, 39, 20, 5, 2, 1)

Edias <- 200\*c(dpois(0:6,2), 1-ppois(6,2))

chisq.test(Ndias, p = Edias, rescale.p = TRUE)

**Chi-squared test for given probabilities**

data: Ndias

X-squared = 2.4546, df = 7, p-value = 0.9305

Mensajes de aviso perdidos

In chisq.test(Ndias, p = Edias, rescale.p = TRUE) :

Chi-squared approximation may be incorrect

Ndias <- c(22, 53, 58, 39, 20, 5, 3)

Edias <- 200\*c(dpois(0:5,2), 1-ppois(5,2))

chisq.test(Ndias, p = Edias, rescale.p = TRUE)

**Chi-squared test for given probabilities**

data: Ndias

X-squared = 2.406, df = 6, p-value = 0.8788

Mensajes de aviso perdidos

In chisq.test(Ndias, p = Edias, rescale.p = TRUE) :

Chi-squared approximation may be incorrect

Ndias <- c(22, 53, 58, 39, 20, 8)

Edias <- 200\*c(dpois(0:4,2), 1-ppois(4,2))

chisq.test(Ndias, p = Edias, rescale.p = TRUE)

**Chi-squared test for given probabilities**

data: Ndias

X-squared = 2.3031, df = 5, p-value = 0.8058

**Ejemplo 3.2**

Duracion <- c(16, 8, 10, 12, 6, 10, 20, 7, 2, 24)

ks.test(Duracion, "pexp", 1/11)

**One-sample Kolmogorov-Smirnov test**

data: Duracion

D = 0.3204, p-value = 0.2561

alternative hypothesis: two-sided

Mensajes de aviso perdidos

In ks.test(Duracion, "pexp", 1/11) :

ties should not be present for the Kolmogorov-Smirnov test

# If a single-sample test is used, the parameters specified in ... must be pre-specified and not estimated from the data.

# There is some more refined distribution theory for the KS test with estimated parameters (see Durbin, 1973), but that

# is not implemented in ks.test.

**Ejemplo 3.3**

Errores <- c(-16, 7, 12, -1.6, -11, 3.2, 12, -3.9, 12, 3.8, -4.5, -9.1, 7.2, 15.7, -3.3, -16.6, 5.8, -15.4, 16.6, -7.6)

library(nortest)

lillie.test(Errores)

**Lilliefors (Kolmogorov-Smirnov) normality test**

data: Errores

**D = 0.1118**, p-value = 0.7378

ks.test(Errores, "pnorm", mean(Errores), sd(Errores))

**One-sample Kolmogorov-Smirnov test**

data: Errores

**D = 0.1118**, p-value = 0.9641

alternative hypothesis: two-sided

Mensajes de aviso perdidos

In ks.test(Errores, "pnorm", mean(Errores), sd(Errores)) :

ties should not be present for the Kolmogorov-Smirnov test

# Although the test statistic obtained from lillie.test(x) is the same as that obtained from ks.test(x, "pnorm", mean(x), sd(x)),

# it is not correct to use the p-value from the latter for the composite hypothesis of normality (mean and variance unknown),

# since the distribution of the test statistic is different when the parameters are estimated.