# Tarea 01

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#### R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

### summary(cars)

```
##
        speed
                          dist
                               2.00
##
    Min.
            : 4.0
                    Min.
                    1st Qu.: 26.00
##
    1st Qu.:12.0
    Median:15.0
                    Median: 36.00
##
##
    Mean
            :15.4
                    Mean
                            : 42.98
    3rd Qu.:19.0
                    3rd Qu.: 56.00
            :25.0
                            :120.00
##
    Max.
                    Max.
```

### **Including Plots**

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

```
if(!require("repmis"))\{install.packages("repmis")\} library("repmis") data<- source\_data('https://raw.githubusercontent.com/JCMO-ITAM/Data4Analysis/master/d4a\_allstateclaim\_data.csv')
```

J <- nrow(data) n0 <- nrow(as.matrix(which(data\$Claim\_Amount==0))) J;n0

theta0 $\_$ star <- n0/J theta0 $\_$ star

theta<br/>0<- seq<br/>(.001, .999, .001) lik\_theta<br/>0<- dbinom(theta<br/>0, J, 1-(n0/J) )

 $plot(theta0, lik\_theta0, xlim=c(0,1), ylim=c(0, 1.25 * max(lik\_theta0,1.6)), type = "l", ylab= "Verosimilitud", lty = 3, xlab= "theta\_0", las=1, main="",lwd=2, cex.lab=1.5, cex.main=1.5, col = "darkorange", axes=FALSE) axis(1, at = seq(0,1,2)) #adds custom x axis axis(2, las=1) # custom y axis$ 

theta1 <- seq(.001, .999, .001) lik theta1 <- dpois(theta1, n0/J)

 $plot(theta1, lik\_theta1, xlim=c(0,1), ylim=c(0, 1.25 * max(lik\_theta1,1.6)), type = "l", ylab= "Verosimilitud", lty = 3, xlab= "theta\_0", las=1, main="",lwd=2, cex.lab=1.5, cex.main=1.5, col = "darkorange", axes=FALSE) axis(1, at = seq(0,1,.2)) #adds custom x axis axis(2, las=1) # custom y axis$