## TASK 4

(i) Write a program in R for **numerically** computing both gamma distribution parameters' maximum likelihood (MLE) estimators.

Use a **user-written** function and an optimization command, similarly, as was shown in the examples of class about the Bernoulli and Normal distributions.

You will need some data to obtain such estimates...

In any case, you can simulate them by using the command rgamma.

## Example see:

https://rpubs.com/mpfoley73/459051

( $rac{\it ii}$ ) Make a **short summary** of the main characteristics of the library <code>MaxLik</code>

https://cran.r-project.org/web/packages/maxLik/index.html

(iii) Apply this package to calculate the *MLE* estimates of the previous gamma-distributed data. Compare the results with the user-written function.