This function is a list of objects in the form of a function that computes the mean of a vector and caches it if not yet done:

makeVector <- function(x = numeric()) {

m <- NULL

set <- function(y) {

x <<- y

m <<- NULL

}

get <- function() x

setmean <- function(mean) m <<- mean

getmean <- function() m

list(set = set, get = get,

setmean = setmean,

getmean = getmean)

}

This function computes, if not done, the inverse of a the matrix and retrieves it.

cachemean <- function(x, ...) {

m <- x$getmean()

if(!is.null(m)) {

message("getting cached data")

return(m)

}

data <- x$get()

m <- mean(data, ...)

x$setmean(m)

m

}