##MakeCacheMatrix is a function creating a special matrix object that can cache its inverse

## cacheSolve returns the inverse of the matrix created with the MakeCacheMatrix function

makeCacheMatrix <- function(x = matrix()) {

dgf<-NULL

set<-function(y){

}

get<-function()x

setinverse<-function(inverse)dgf<<-inverse

getinverse<-function()dgf

list(set=set,get=get,

setinverse=setinverse

getinverse=getinverse)

}

## cacheSolve requires an argument that is returned by makeCacheMatrix()

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

## Return a matrix that is the inverse of 'x'

dgf<-x$getinverse()

if(!is.null(dgf)){

message("getting cached data")

return(dgf)

}

data<-x$get()

dgf<-inverse(data,...)

x$setinverse(dgf)

dgf

}