**Assignment 3.2**

**Define matrix mymat by replicating the sequence 1:5 for 4 times and transforming into a matrix, sum over rows and columns.**

#we create matrix mymat and use rep() function

mymat <- matrix(rep(1:5,4), nrow = 4, ncol = 4, byrow = F)

colnames(mymat) <- c("col1", "col2", "col3","col4")

rownames(mymat) <- c("row1", "row2","row3","row4")

mymat

#we can do like this too for row/col sum

#rowSums(mymat)

#colSums(mymat)

col.sums <- apply(mymat, 2, sum)

col.sums

row.sums <- apply(mymat, 1, sum)

row.sums

rbind(mymat ,Rtot = row.sums)

cbind(mymat ,Ctot = col.sums)

rbind(cbind(mymat, Rtot = row.sums), Ctot = c(col.sums, sum(col.sums)))