Assignment 5.1

Question No.1 - How many vowels are there in the US States

> States <- rownames(USArrests)

> st <- paste(States, collapse ="")

> st

[1] "AlabamaAlaskaArizonaArkansasCaliforniaColoradoConnecticutDelawareFloridaGeorgiaHawaiiIdahoIllinoisIndianaIowaKansasKentuckyLouisianaMaineMarylandMassachusettsMichiganMinnesotaMississippiMissouriMontanaNebraskaNevadaNew HampshireNew JerseyNew MexicoNew YorkNorth CarolinaNorth DakotaOhioOklahomaOregonPennsylvaniaRhode IslandSouth CarolinaSouth DakotaTennesseeTexasUtahVermontVirginiaWashingtonWest VirginiaWisconsinWyoming"

> st <- tolower(strsplit(st,"")[[1]])

> table(st)

st

a b c d e f g h i j k l m n o p r s t u v w x y z

61 2 12 11 28 2 8 15 44 1 10 15 14 43 36 4 22 32 19 8 5 11 2 6 1

> stdf <- data.frame(table(st))

> sum(stdf[c(1,5,9,15,20),2])

[1] 177

Question No.2 - Visualise the Vowel Distribution

> vowels <- as.vector(stdf[c(1,5,9,15,20),1])

> vowels

[1] "a" "e" "i" "o" "u"

> vowelfreq <- as.vector(stdf[c(1,5,9,15,20),2])

> vowelfreq

[1] 61 28 44 36 8

> vowdist <- cbind(vowels, vowelfreq)

> vowdist<- as.table(vowdist)

> plot(vowelfreq~factor(vowels), vowdist, las=2, xlab="", main="vowel distribution")

