> install.packages("outliers")

> library(outliers)

> outlier\_tf=outlier(data,logical=TRUE)

> fOutlier=which(outlier\_tf==TRUE,arr.ind=TRUE)

> newData=data[-fOutlier[,1],]

> nrow(newData)

[1] 196

> cluster=kmeans(newData,2,iter.max=50,nstart=1,algorithm=c("Lloyd"),trace=FALSE)

> c1=newData[cluster$cluster==1, ]

> nd=newData[,1:6]

> cluster=kmeans(newData,2,iter.max=50,nstart=1,algorithm=c("Lloyd"),trace=FALSE)

> cluster=kmeans(nd,2,iter.max=50,nstart=1,algorithm=c("Lloyd"),trace=FALSE)

> c1=newData[cluster$cluster==1, ]

> nrow(c1)

[1] 20

> clusplot(nd,cluster$cluster,color=TRUE,shade=TRUE)

> traindata1=c1[1:15,]

> testdata1=c1[16:20,]

> res1=knn(traindata1[,1:6],testdata1[,1:6],traindata1[,7],k=3)

> mean(res1!=c1[,7])\*100

[1] 0

> c2=newData[cluster$cluster==2, ]

> nrow(c2)

[1] 176

> traindata2=c2[1:100,]

> testdata2=c2[101:176,]

> res2=knn(traindata2[,1:6],testdata2[,1:6],traindata2[,7],k=3)

> mean(res2!=c2[,7])\*100

[1] 0