5.1

x<-c(3.42,4.13,3.91,2.95,1.32,3.51,2.35,4.31,3.11,2.37,2.91)

y<-c(1.33,1,1,1)

t.test(x,y,var.equal = T)

x<-c(3.42,4.13,3.91)

y<-c(3.51,2.35,4.31)

t.test(x,y,var.equal = T)

x<-c(2.85,2.19,1.32)

y<-c(3.11,2.37,2.91)

t.test(x,y,var.equal = T)

x<-c(1.33,1)

y<-c(1,1)

t.test(x,y,var.equal = T)

x<-c(4,5,3,5,3,4,3,2,2,4,3,4,4,2,5,3,4,4)

y<-c(3,3,3,4,3,3,4,3,2,5,4,4,3,2,1,4,3,3)

z<-c(2,2,1,3,4,2,2,1,2,2,4,3,2,2,1,2,2,4)

boxplot(x,y,z)

con<-data.frame(conf=c(x,y,z),level=rep(c("high","low","no"),c(18,18,18)))

con\_aov<-aov(conf~level,data=con)

summary(con\_aov)

anova(con\_aov)

5.2.1

x<-c(4,5,2,4,5,3,2,2,4,3,5,3,4,5,3,4,4,4)

y<-c(3,3,2,5,3,4,3,3,4,3,2,3,3,3,1,4,3,3)

z<-c(4,2,2,3,2,4,3,2,2,1,1,3,1,2,2,1,2,4)

con<-data.frame(conf=c(x,y,z),level=rep(c("high","low","no"),c(18,18,18)))

con\_aov<-aov(conf~level,data=con)

summary(con\_aov)

anova(con\_aov)

5.2.2

ns<-c(8,4)

Chisq.test(ns)

5.2.3

dis<-c(25,9)

chisq.test(dis)

dis\_time<-c(13,12)

chisq.test(dis\_time)

dis\_no<-c(3,9)

chisq.test(dis\_no)

5.3

table\_ave<-matrix(c(78.67,82.33,81.45,74.41,81.33,84.17,80,76.45,77.47,83.18,81.25,77.43,71.33,85.10,78.22,73.34,84.23,78.79),nrow = 6,ncol = 3)

table\_ave

chisq.test(table\_ave)

table\_group<-matrix(c(78,75,80,75,78,78,80,75,72,81,76,75,65,76,70.5,68,75,56.5),nrow = 6,ncol = 3)

table\_group

chisq.test(table\_group)

group\_high<-c(78,75,80,75,78,78)

group\_low<-c(80,75,72,81,76,75)

t.test(group\_high,group\_low,var.equal = T)

ave\_no<-c(71.33,85.10,73.34,84.23)

group\_no<-c(65,76,68,75)

t.test(ave\_no,group\_no,var.equal = T)