rm(list=ls())

age=c(19,40,42,42,47,49,50,54,56,56,57,57,58,61,62,62,65,65,65,66,66,66,67,68,68,68,69,69,70,71,71,71,72,73,74,74,75,75,75,76,77,80,82,82,82,83,86,88,88,94)

len=c(9.75,9,9.6,9.75,11.25,9.45,11.25,9,7.95,12,8.1,10.2,8.55,7.2,7.95,8.85,8.25,8.85,9.75,8.85,9.15,10.2,9.15,7.95,8.85,9,7.8,10.05,10.5,9.15,9.45,9.45,9.45,8.1,8.85,9.6,6.45,9.75,10.2,6,8.85,9,9.75,10.65,13.2,7.95,7.95,9.15,9.75,9)

df<-data.frame(age,len)

life.lm<-lm(len~age,data=df)

coef(life.lm) #coefficient

summary(life.lm)

par(mfrow=c(2,2))

plot(age,len)

lines(age,life.lm$fitted.values,col=2)

lines(len,life.lm$fitted.values,col=2)

abline(life.lm,col=3)

anova(life.lm)