Answer

a)

```
C<-c(50,100,150,200,250,300)

S<-c(875,884,762,424,365,128)

plot(C,S,xlab="Heat",ylab="Life Span",main="Scatter plot of Heat Vs Life Span")
```

b)

```
cor.test(S,C)

cor(S,C)
```

c)

```
fit<-lm(S~C)

fit

attributes(fit)

fit$coefficients

coef(fit)

fit$resid

resid(fit)

fit$fitted
```

d)

```
e<-resid(fit)

SSE<-sum(e*e)

SSE
```

e)

```
abline(fit,col='red')
```

f)

```
identify(C,S,S)
```

g)

```
summary(fit)
```

h)

i)

```
anova(fit)
```

j)

```
qqnorm(fit$resid)

qqline(fit$resid)

boxplot(fit$resid,col='green')

plot(fit$fitted,fit$resid)

abline(0,0)

layout(matrix(1:4,2,2))

plot(fit)
```