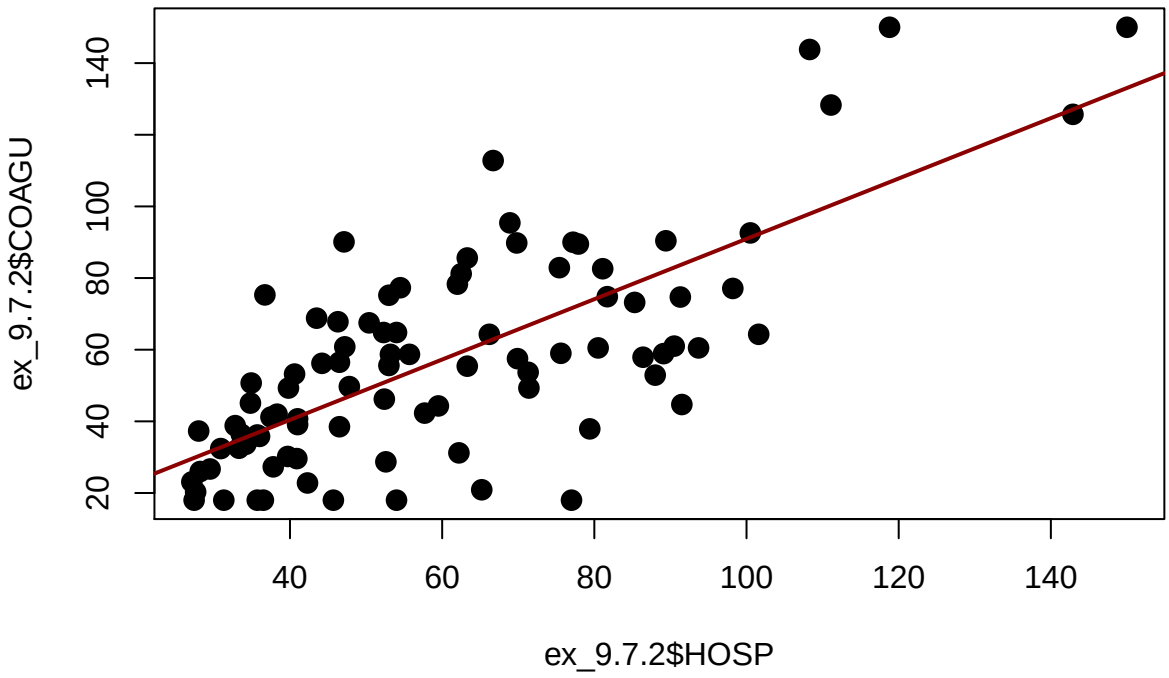
ejercicio 9.7.2

Leer los datos

```
ex_9.7.2 <- read.csv("EXR_C09_S07_02.csv")
library(car)
```

```
## Loading required package: carData
```

```
plot(ex_9.7.2$HOSP, ex_9.7.2$COAGU, pch=16, cex=1.5)
abline(lm(formula = ex_9.7.2$COAGU~ ex_9.7.2$HOSP),col="darkred",lwd=2)
```

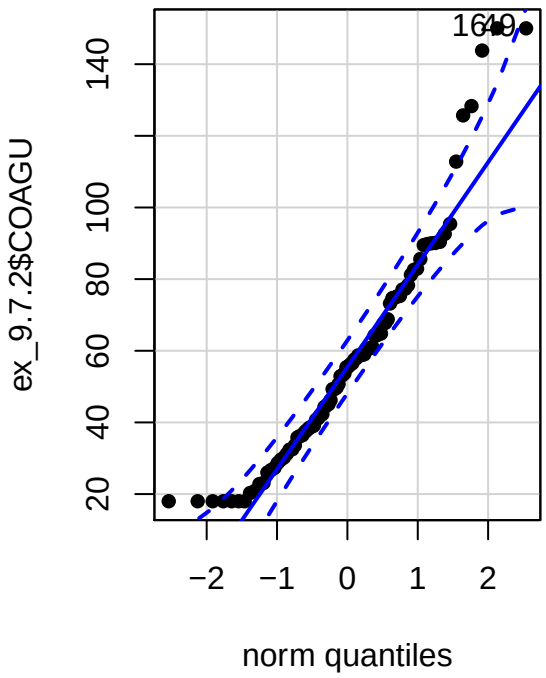


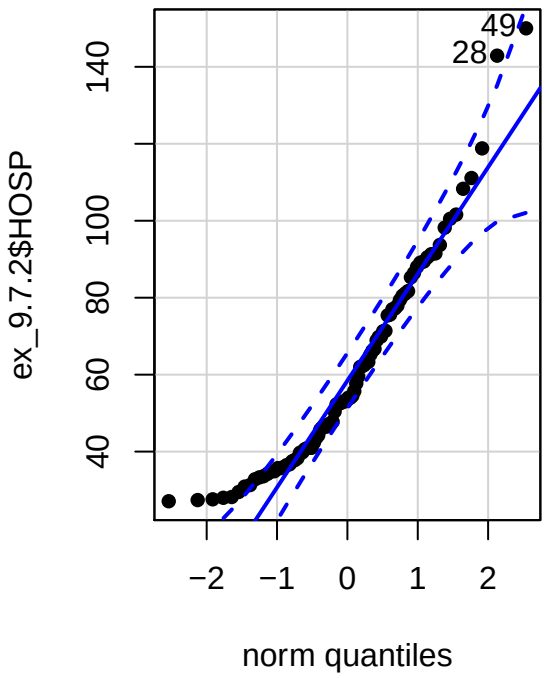
QQ-plots

```
par(mfrow=c(1,2))
qqPlot(ex_9.7.2$COAGU,pch=16)
```

```
## [1] 16 49
```

```
qqPlot(ex_9.7.2$HOSP,pch=16)
```






```
## [1] 49 28
```

```
cor.test(ex_9.7.2$COAGU,ex_9.7.2$HOSP)
```

```
##
##  Pearson's product-moment correlation
##
## data:  ex_9.7.2$COAGU and ex_9.7.2$HOSP
## t = 10.17, df = 88, p-value < 2.2e-16
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.6227350 0.8176615
## sample estimates:
##      cor
## 0.735034
```

```
lineal_model <- lm(COAGU~HOSP, data = ex_9.7.2)
lineal_model
```

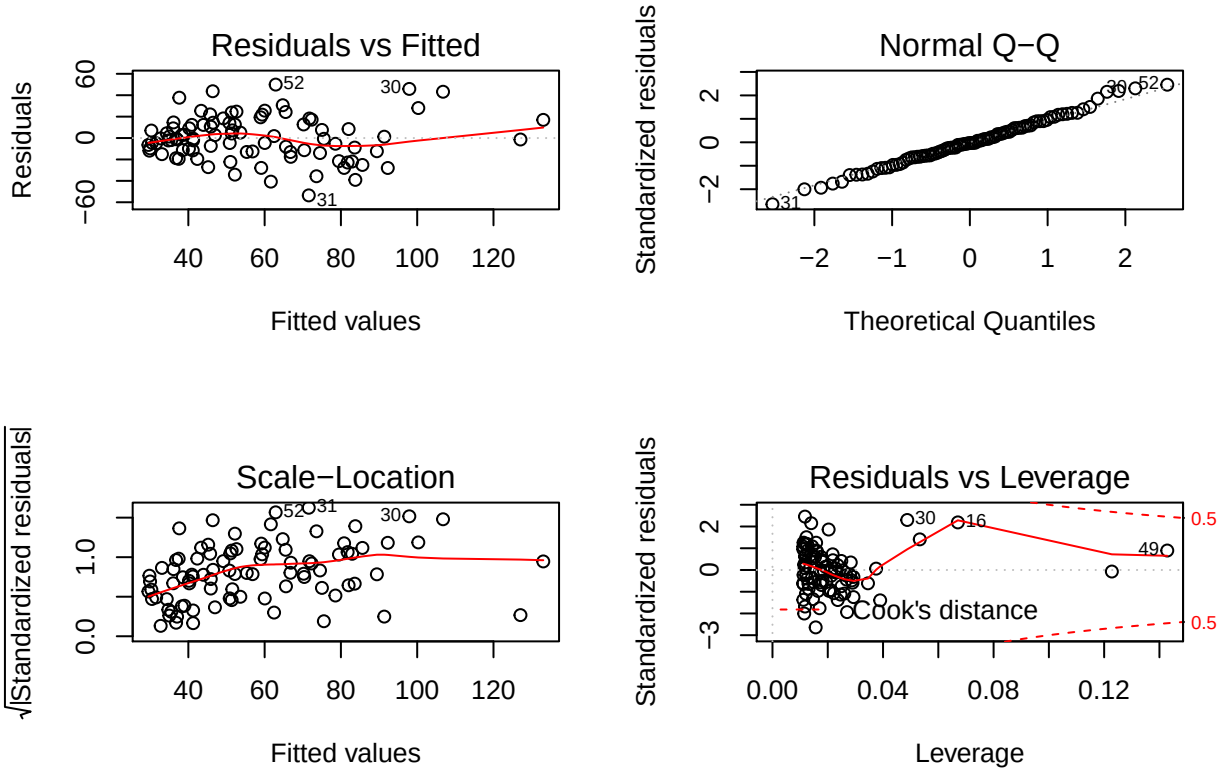
```
##
## Call:
## lm(formula = COAGU ~ HOSP, data = ex_9.7.2)
##
## Coefficients:
## (Intercept)         HOSP
##      6.7265       0.8421
```

```r
summary(lineal_model)
```

```
##
## Call:
## lm(formula = COAGU ~ HOSP, data = ex_9.7.2)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -53.57 -12.48  -0.66  12.66  49.90
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  6.72650    5.44575   1.235     0.22
## HOSP         0.84215    0.08281  10.170   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 20.45 on 88 degrees of freedom
## Multiple R-squared:  0.5403, Adjusted R-squared:  0.5351
## F-statistic: 103.4 on 1 and 88 DF,  p-value: < 2.2e-16
```

plot lineal model

```r
par(mfrow=c(2,2))
plot(lineal_model)
```



Test

```r
ex_anova <- aov(lineal_model)
summary(ex_anova)
```

```
##             Df Sum Sq Mean Sq F value Pr(>F)
## HOSP         1  43233   43233   103.4 <2e-16 ***
## Residuals   88  36787     418
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
shapiro.test(resid(ex_anova))
```

```
##
##  Shapiro-Wilk normality test
##
## data:  resid(ex_anova)
## W = 0.99405, p-value = 0.9608
```