STAT 217: R^2 and Influential Points (in class 10/21 and 10/23)

```
cereal.fit <- lm(calories~sugar, data = cereal)
summary(cereal.fit)
```

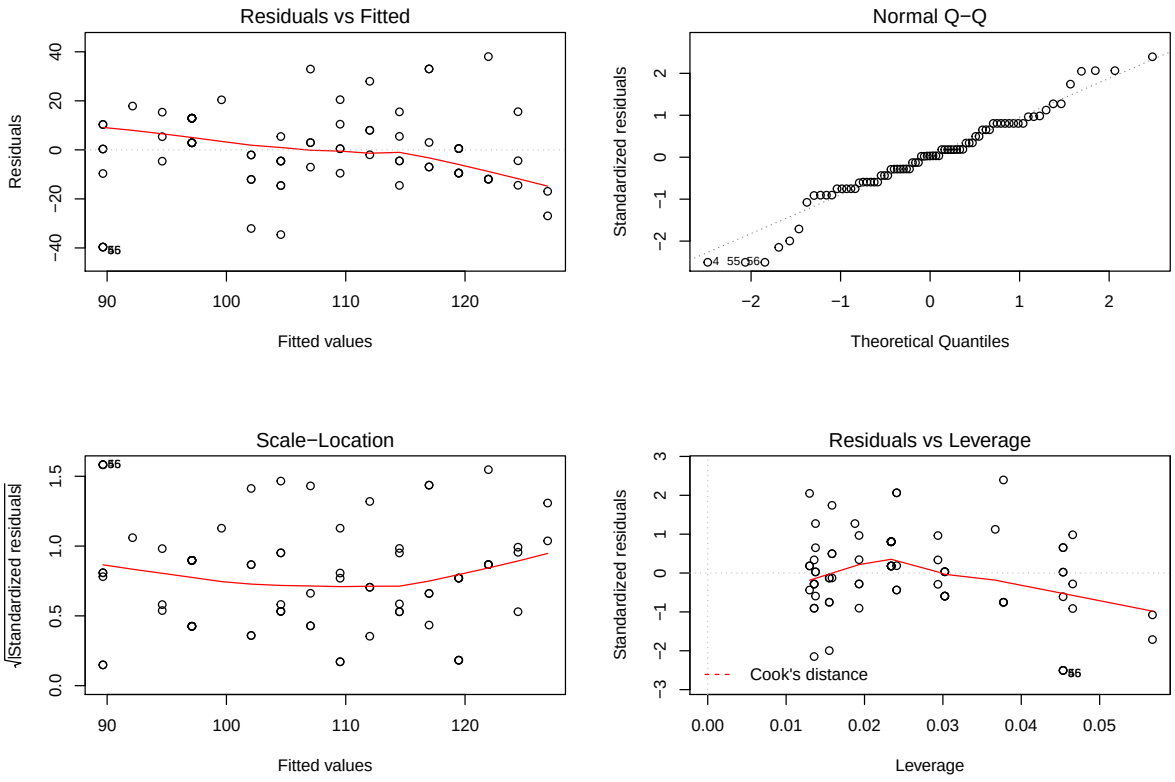
```
Call:
lm(formula = calories ~ sugar, data = cereal)

Residuals:
   Min     1Q Median     3Q    Max
-39.65  -9.47   0.47  10.47  38.05

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    89.65       3.45   26.00  < 2e-16
sugar           2.48       0.42    5.92  9.2e-08

Residual standard error: 16.2 on 75 degrees of freedom
Multiple R-squared:  0.318,Adjusted R-squared:  0.309
F-statistic:   35 on 1 and 75 DF,  p-value: 9.17e-08
```

```
par(mfrow=c(2,2))
plot(cereal.fit)
```



```
lm.tread <- lm(TreadMillOx~RunTime, data=treadmill)
summary(lm.tread)
```

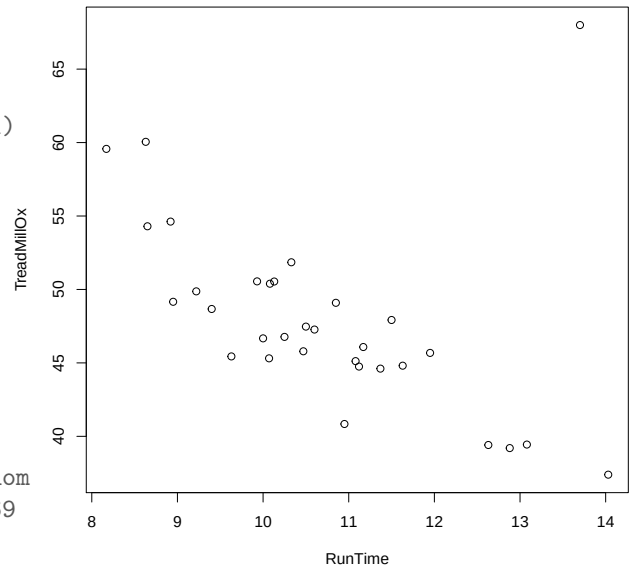
```

Call:
lm(formula = TreadMillOx ~ RunTime, data = treadmill)

Residuals:
   Min     1Q Median     3Q    Max
 -6.67  -2.65  -1.20   1.41  25.77

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    68.54       7.66    8.95  5.6e-10
RunTime        -1.92       0.71   -2.70    0.011

Residual standard error: 5.82 on 30 degrees of freedom
Multiple R-squared:  0.196,Adjusted R-squared:  0.169
F-statistic: 7.31 on 1 and 30 DF,  p-value: 0.0112
```




```
par(mfrow=c(2,2))
plot(lm.tread)
```