R Code for Examples in the book
"Statistics: The Art and Science of Learning from Data"
by Agresti, Franklin and Klingenberg, 5th edition

Chapter 14

Example 9: Corn Yield – Testing the Main Effects

Reading in data

```
data <-
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapte
r14/corn_yield.csv')
head(data, 3)

##    fertilizer manure yield
## 1        high   high  13.7
## 2        high   high  15.8
## 3        high   high  13.9
```

Fitting in regression model

```
lin.reg <- lm(yield ~ fertilizer + manure, data = data)
```

To get the two-way ANOVA

```
aov <- anova(lin.reg)
round(aov, 2)

## Analysis of Variance Table
##
## Response: yield
##            Df Sum Sq Mean Sq F value Pr(>F)
## fertilizer  1  17.67   17.67    6.33   0.02 *
## manure      1  19.21   19.21    6.88   0.02 *
## Residuals  17  47.44    2.79
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```