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

Chapter 13

Example 7: Female Athletes' Weight – Confidence Interval for β

Reading in data

```
athletes <-
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapte
r13/college_female_athletes.csv')
```

Fitting in multiple regression model

```
linReg <- lm(TBW ~ HGT + BF + AGE, data = athletes)
linReg

##
## Call:
## lm(formula = TBW ~ HGT + BF + AGE, data = athletes)
##
## Coefficients:
## (Intercept)           HGT              BF             AGE
##    -97.6938        3.4285        136.4265         -0.9601
```

To obtain confidence intervals for the regression coefficients

```
round(confint(linReg), 1)

##               2.5 % 97.5 %
## (Intercept) -155.3   -40.1
## HGT            2.7     4.2
## BF            73.9   198.9
## AGE           -2.3     0.3
```