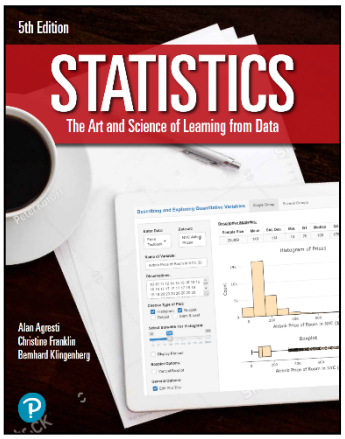

R Code for Examples in the book
"Statistics: The Art and Science of Learning from Data"
by Agresti, Franklin and Klingenberg, 5th edition

Chapter 12

Example 6: Predicting Max Bench Press – 95% Confidence Interval for the Slope

Reading in data

```
athletes <-
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapter12/highschool_female_athletes.csv')
colnames(athletes) #check column names
```

```
##  [1] "Athlete"             "BP60"                "maxBP..lbs."
##  [4] "LP200"               "maxLP..lbs."         "Situps..per.minute."
##  [7] "X40YD..sec."         "VerticalJump..in."   "SitReach..in."
## [10] "MB..in."             "SR..sec."            "Age"
## [13] "Height..in."         "Weight..lbs."        "Bodyfat...."
## [16] "BMI"                 "Sport"
```

Fitting regression model

```
linReg <- lm(maxBP..lbs. ~ BP60, data = athletes)
```

To compute a 95% confidence interval for the slope, you can use the `confint()` function

```
confint(linReg, 'BP60', level = 0.95)
```

```
##          2.5 %   97.5 %
## BP60 1.190987 1.791119
```