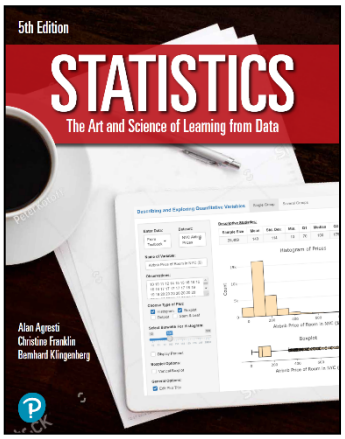

R Code for Examples in the book
"Statistics: The Art and Science of Learning from Data"
by Agresti, Franklin and Klingenberg, 5th edition

Chapter 3

Example 10: Baseball Scoring – Regression Equation

Reading in the data

```
baseball <-
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapter3/AL_team_statistics.csv')
attach(baseball) # so we can refer to variable names
```

Fitting in regression model

```
linReg <- lm(scoring ~ batting)
```

Viewing model

```
linReg

##
## Call:
## lm(formula = scoring ~ batting)
##
## Coefficients:
## (Intercept)      batting
##       -2.32        26.07
```

From this model, you can obtain the regression equation: Team Scoring = -2.32 + 26.07 * Batting Average.

To use this model to predict a given team's score given its batting average, you can substitute their batting average in the equation.

```
-2.32 + 26.07 * 0.27

## [1] 4.7189
```

or you can use the `predict()` function

```
new <- data.frame(batting = c(0.27))
predict(linReg, newdata = new)

##        1
## 4.719605
```