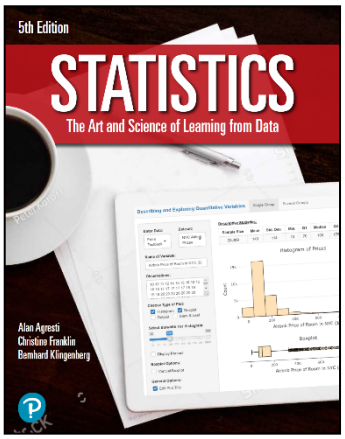

R Code for Examples in the book
"Statistics: The Art and Science of Learning from Data"
by Agresti, Franklin and Klingenberg, 5th edition

Chapter 12

Example 10: The Strength Study – The Squared Correlation Coefficient r^2

Reading in data

```
athletes <-
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapter12/highschool_female_athletes.csv')
attach(athletes) # so we can refer to variable names
```

To obtain correlation between maxBP and BP60

```
r <- cor(maxBP..lbs., BP60)
rSquared <- r ** 2
rSquared

## [1] 0.6432443
```

Alternatively, you can fit a regression and check the summary

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

## [1] 0.6432443
```