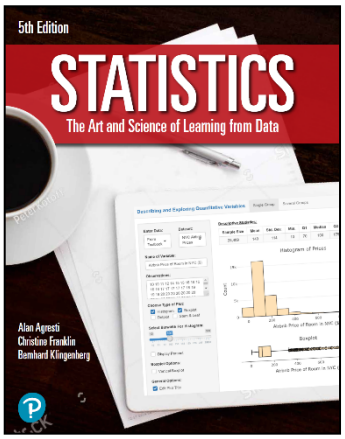

R Code for Examples in the book
"Statistics: The Art and Science of Learning from Data"
by Agresti, Franklin and Klingenberg, 5th edition

Chapter 12

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

Reading in data

```
data <- read.csv(file='https://img1.wsimg.com/blobby/go/bbca5dba-4947-4587-b40a-db346c01b1b3/downloads/High_School_Female_Athletes_Strength.csv?ver=1657874961226')
attach(data) # so we can refer to variable names
```

To obtain correlation between maxBP and BP60

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

```
## [1] 0.6432443
```

Alternatively, you can fit a regression and check the summary

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

```
## [1] 0.6432443
```