



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 2: The Strength Study – Scatterplot

Reading in data

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

attach(data) # so we can refer to variable names
```

To create a scatterplot

```
plot(x = BP60, y = maxBP..lbs., pch = 16, col = 'darkred',  
     main = 'Data on 57 Female High School Athletes',  
     xlab = 'Number of 60 lbs. Bench Presses',  
     ylab = 'Maximum Bench Press (lbs)')
```

