



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

Chapter 2

Example 19: Women’s Heptathlon – Standardizing

Reading in the data of the performances of athletes:

```
meters200 <- c(24.48, 23.49, 23.26, 24.32, 24.09, 24.67)
javelin <- c(39.39, 46.06, 36.36, 37.77, 40.93, 33.42)
```

To compute the z-scores of each athlete for both events:

```
zScoresMeters200 <- (meters200 - mean(meters200)) / sd(meters200)
zScoresJavelin <- (javelin - mean(javelin)) / sd(javelin)
```

Rounding z scores to 2 decimal places

```
round(zScoresMeters200, 2)
```

```
## [1] 0.76 -1.00 -1.41 0.48 0.07 1.10
```

```
round(zScoresJavelin, 2)
```

```
## [1] 0.09 1.64 -0.61 -0.28 0.45 -1.29
```