



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

Chapter 10

Example 7: Standard Error for the Difference of Two Sample Means

Reading in data

```
data <-  
read.csv(file='https://raw.githubusercontent.com/artofstat/data/master/Chapter10/text_and_graph.csv')
```

To subset data to make the two groups

```
text_and_graph <- subset(data, Graph == 'Yes')  
text_only <- subset(data, Graph == 'No')
```

To find sample mean, sample standard deviation, and sample size

```
xbar_1 <- mean(text_and_graph$Rating)  
xbar_2 <- mean(text_only$Rating)  
sd_1 <- sd(text_and_graph$Rating)  
sd_2 <- sd(text_only$Rating)  
n_1 <- length(text_and_graph$Rating)  
n_2 <- length(text_only$Rating)
```

To compute the standard error for the difference

```
se <- sqrt((sd_1 ** 2 / n_1) + (sd_2 ** 2 / n_2))  
round(se, 3)  
## [1] 0.335
```