

sta_100_hw_1

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R Markdown

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

```
pain<-read.csv("data/pain.csv")
```

#(a) Find the overall mean of pain tolerance, regardless of hair color.

```
mean(pain$Score)
```

```
## [1] 47.84211
```

#(b) Find the overall standard deviation of pain tolerance, regardless of hair color.

```
sd(pain$Score)
```

```
## [1] 11.4565
```

#(c) Find the mean pain tolerance for the category Dark-Brunette. Hint: Use R to find the mean for each group.

```
aggregate(Score~HairColor,pain,mean)
```

```
##      HairColor Score
## 1   DarkBlond  51.2
## 2 DarkBrunette  37.4
## 3  LightBlond  59.2
## 4 LightBrunette  42.5
```

#(d) Find the standard deviation of pain tolerance for the category LightBrunette. Hint: Use R to find the standard deviation for each group.

```
aggregate(Score~HairColor,pain,sd)
```

```
##      HairColor      Score
## 1   DarkBlond 9.284396
## 2 DarkBrunette 8.324662
## 3  LightBlond 8.526429
## 4 LightBrunette 5.446712
```

#(e) Find the number of subjects that were in the category LightBlond. Hint: Use R to find the number of subjects for each group.

```
aggregate(Score~HairColor,pain,length)
```

```
##      HairColor Score
## 1      DarkBlond     5
## 2 DarkBrunette     5
## 3    LightBlond     5
## 4 LightBrunette     4
```

#(f) Which hair color category had the highest average pain tolerance? #Light Blondes had the highest average pain tolerance.

#(g) Which hair color category had the lowest standard deviation of pain tolerance? #Light Brunettes had the lowest standard deviation of pain tolerance.

#(h) Which hair color category had the most subjects? #Dark Blonde,Dark Brunette, and Light Blonde tied for having most subjects