

1. Recreate the following plots shown below.

(Hint):

For the first few plots, use the mpg dataset.

```
library(ggplot2)
library(ggthemes)
head(mpg)

install.packages('ggthemes')
library(ggplot2)
library(ggthemes)
head(mpg)
```

2. Histogram of hwy mpg values.

```
ggplot(mpg, aes(hwy)) + geom_histogram(bins=20, fill="red", alpha=0.5)
```

3. Barplot of car counts per manufacturer with color fill defined by cyl count.

```
ggplot(mpg, aes(manufacturer)) + geom_bar(aes(fill=factor(cyl)))
```

4. Switch now to use the txhousing dataset that comes with ggplot2.

```
head(txhousing)
```

```
head(txhousing)
```

5. Create a scatterplot of volume versus sales. Afterwards play around with alpha and color arguments to clarify information.

```
pl <- ggplot(txhousing, aes(x=sales, y=volume)) + geom_point(alpha=0.4,
col="blue")
pl
```

6. Add a smooth fit line to the scatterplot from above. Hint: You may need to look up geom\_smooth()

```
pl + geom_smooth( col="red")
```