HW1

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
\NormalTok{cars  }\OtherTok{=}
→   \FunctionTok{read.csv}\NormalTok{(}\StringTok{"../data/cars.csv"}\NormalTok{)}
\FunctionTok{summary}\NormalTok{(cars)}
```
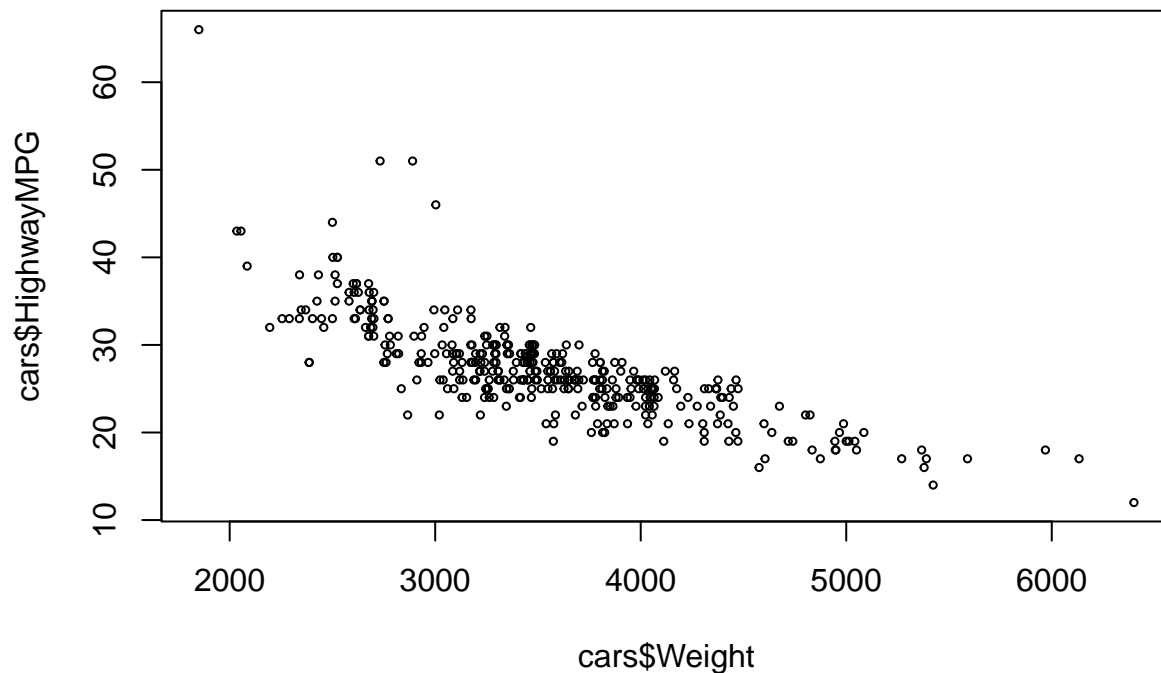
```
##     Sports            SUV             Wagon             Minivan
##  Min.   :0.0000   Min.   :0.0000   Min.   :0.00000   Min.   :0.00000
##  1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.:0.00000   1st Qu.:0.00000
##  Median :0.0000   Median :0.0000   Median :0.00000   Median :0.00000
##  Mean   :0.1163   Mean   :0.1525   Mean   :0.07235   Mean   :0.05426
##  3rd Qu.:0.0000   3rd Qu.:0.0000   3rd Qu.:0.00000   3rd Qu.:0.00000
##  Max.   :1.0000   Max.   :1.0000   Max.   :1.00000   Max.   :1.00000
##     Pickup       AWD              RWD             Retail
##  Min.   :0    Min.   :0.0000   Min.   :0.0000   Min.   : 10280
##  1st Qu.:0    1st Qu.:0.0000   1st Qu.:0.0000   1st Qu.: 20997
##  Median :0    Median :0.0000   Median :0.0000   Median : 28495
##  Mean   :0    Mean   :0.2016   Mean   :0.2429   Mean   : 33231
##  3rd Qu.:0    3rd Qu.:0.0000   3rd Qu.:0.0000   3rd Qu.: 39552
##  Max.   :0    Max.   :1.0000   Max.   :1.0000   Max.   :192465
##     Dealer         Engine        Cylinders        Horsepower
##  Min.   :  9875   Min.   :1.400   Min.   : 3.000   Min.   : 73.0
##  1st Qu.: 19575   1st Qu.:2.300   1st Qu.: 4.000   1st Qu.:165.0
##  Median : 26155   Median :3.000   Median : 6.000   Median :210.0
##  Mean   : 30441   Mean   :3.127   Mean   : 5.757   Mean   :214.4
##  3rd Qu.: 36124   3rd Qu.:3.800   3rd Qu.: 6.000   3rd Qu.:250.0
##  Max.   :173560   Max.   :6.000   Max.   :12.000   Max.   :493.0
##     CityMPG         HighwayMPG        Weight        Wheelbase         Length
##  Min.   :10.00   Min.   :12.00   Min.   :1850   Min.   : 89.0   Min.   :143
##  1st Qu.:18.00   1st Qu.:24.00   1st Qu.:3107   1st Qu.:103.0   1st Qu.:177
##  Median :19.00   Median :27.00   Median :3469   Median :107.0   Median :186
##  Mean   :20.31   Mean   :27.26   Mean   :3532   Mean   :107.2   Mean   :185
##  3rd Qu.:21.50   3rd Qu.:30.00   3rd Qu.:3922   3rd Qu.:112.0   3rd Qu.:193
##  Max.   :60.00   Max.   :66.00   Max.   :6400   Max.   :130.0   Max.   :221
##     Width
##  Min.   :64.00
##  1st Qu.:69.00
##  Median :71.00
```

```
##  Mean   :71.28
##  3rd Qu.:73.00
##  Max.   :81.00
```

Including Plots

You can also embed plots, for example:

```
## Warning in plot.window(...): "pck" is not a graphical parameter
```

```
## Warning in plot.xy(xy, type, ...): "pck" is not a graphical parameter
```

```
## Warning in axis(side = side, at = at, labels = labels, ...): "pck" is not a
## graphical parameter
## Warning in axis(side = side, at = at, labels = labels, ...): "pck" is not a
## graphical parameter
```

```
## Warning in box(...): "pck" is not a graphical parameter
```

```
## Warning in title(...): "pck" is not a graphical parameter
```


$$2 + 2 = 4 \tag{1}$$

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