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:

```
cars = read.csv("../data/cars.csv")
summary(cars)
```

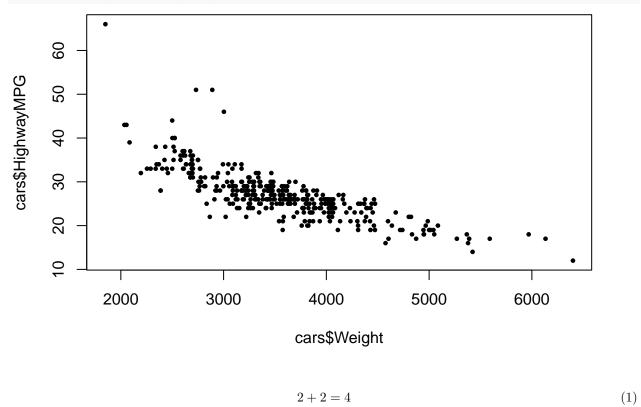
```
SUV
##
        Sports
                                              Wagon
                                                                 Minivan
##
            :0.0000
                               :0.0000
                                                  :0.00000
                                                                      :0.00000
    Min.
                       Min.
                                         Min.
                                                             Min.
    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
##
            :0.1163
    Mean
                       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
##
            :1.0000
                               :1.0000
                                                  :1.00000
##
    Max.
                       Max.
                                         Max.
                                                             Max.
                                                                      :1.00000
                                          RWD
##
        Pickup
                       AWD
                                                           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.:0.0000
                                    3rd Qu.:0.0000
                                                       3rd Qu.: 39552
##
    3rd Qu.:0
##
    Max.
            :0
                 Max.
                         :1.0000
                                    Max.
                                            :1.0000
                                                               :192465
        Dealer
                           Engine
##
                                           Cylinders
                                                              Horsepower
##
                                                : 3.000
            :
               9875
                               :1.400
                                        Min.
                                                           Min.
                                                                   : 73.0
    Min.
                       Min.
##
    1st Qu.: 19575
                       1st Qu.:2.300
                                        1st Qu.: 4.000
                                                           1st Qu.:165.0
                       Median :3.000
                                        Median : 6.000
##
    Median : 26155
                                                           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
##
            :10.00
                              :12.00
                                               :1850
                                                                : 89.0
    Min.
                      Min.
                                       Min.
                                                        Min.
                                                                          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
                              :27.26
                                               :3532
                                                                :107.2
                                                                                  :185
                      Mean
                                       Mean
                                                        Mean
                                                                          Mean
##
    3rd Qu.:21.50
                      3rd Qu.:30.00
                                        3rd Qu.:3922
                                                        3rd Qu.:112.0
                                                                          3rd Qu.:193
            :60.00
                              :66.00
                                               :6400
##
    Max.
                      Max.
                                       Max.
                                                        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:

plot(cars\$Weight,cars\$HighwayMPG,pch=19,cex=0.5)



Note that the \mbox{echo} = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.