Assignment-1

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 (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:

```
chooseCRANmirror(graphics = getOption("menu.graphics"), ind = 79,
                 local.only = FALSE)
install.packages("vcd")
```

```
## Installing package into 'C:/Users/ANUJEETH/Documents/R/win-library/4.1'
## (as 'lib' is unspecified)
```

```
## package 'vcd' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\ANUJEETH\AppData\Local\Temp\RtmpyoSbEV\downloaded_packages
```

```
install.packages("dplyr")
```

```
## Installing package into 'C:/Users/ANUJEETH/Documents/R/win-library/4.1'
## (as 'lib' is unspecified)
```

```
## package 'dplyr' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\ANUJEETH\AppData\Local\Temp\RtmpyoSbEV\downloaded_packages
```

```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
#DataSetSource: https://vincentarelbundock.github.io/Rdatasets/datasets.html

MathEnrollment <- read.csv("MathEnrollment.csv")
View(MathEnrollment)

#summary of Math Enrollment
summary(MathEnrollment)
```

```
##        X            AYear           Fall           Spring
##  Min.   : 1.0   Min.   :2001   Min.   :248.0   Min.   :206.0
##  1st Qu.: 3.5   1st Qu.:2004   1st Qu.:266.0   1st Qu.:238.0
##  Median : 6.0   Median :2006   Median :286.0   Median :254.0
##  Mean   : 6.0   Mean   :2006   Mean   :285.5   Mean   :257.8
##  3rd Qu.: 8.5   3rd Qu.:2008   3rd Qu.:302.0   3rd Qu.:285.5
##  Max.   :11.0   Max.   :2011   Max.   :343.0   Max.   :308.0
```

```
#Arranging in order based on Fall
arrange(MathEnrollment, Fall)
```

```
##     X AYear Fall Spring
## 1   7  2007  248    308
## 2   9  2009  250    285
## 3   1  2001  259    246
## 4   6  2006  273    247
## 5  10  2010  278    286
## 6   5  2005  286    230
## 7   8  2008  292    271
## 8   2  2002  301    206
## 9  11  2011  303    254
## 10  4  2004  307    215
## 11  3  2003  343    288
```

```
#Arranging in desc order
arrange(MathEnrollment, desc(Fall))
```

```
##     X AYear Fall Spring
## 1   3  2003  343    288
## 2   4  2004  307    215
## 3  11  2011  303    254
## 4   2  2002  301    206
## 5   8  2008  292    271
## 6   5  2005  286    230
## 7  10  2010  278    286
## 8   6  2006  273    247
## 9   1  2001  259    246
## 10  9  2009  250    285
## 11  7  2007  248    308
```

```
#Calculating Mean
mean(MathEnrollment$Fall)
```

```
## [1] 285.4545
```

```
#Calculating Median
median(MathEnrollment$Spring)
```

```
## [1] 254
```

```
select(MathEnrollment, AYear:Spring)
```

```
##    AYear Fall Spring
## 1   2001  259    246
## 2   2002  301    206
## 3   2003  343    288
## 4   2004  307    215
## 5   2005  286    230
## 6   2006  273    247
## 7   2007  248    308
## 8   2008  292    271
## 9   2009  250    285
## 10  2010  278    286
## 11  2011  303    254
```

```
summary(MathEnrollment)
```

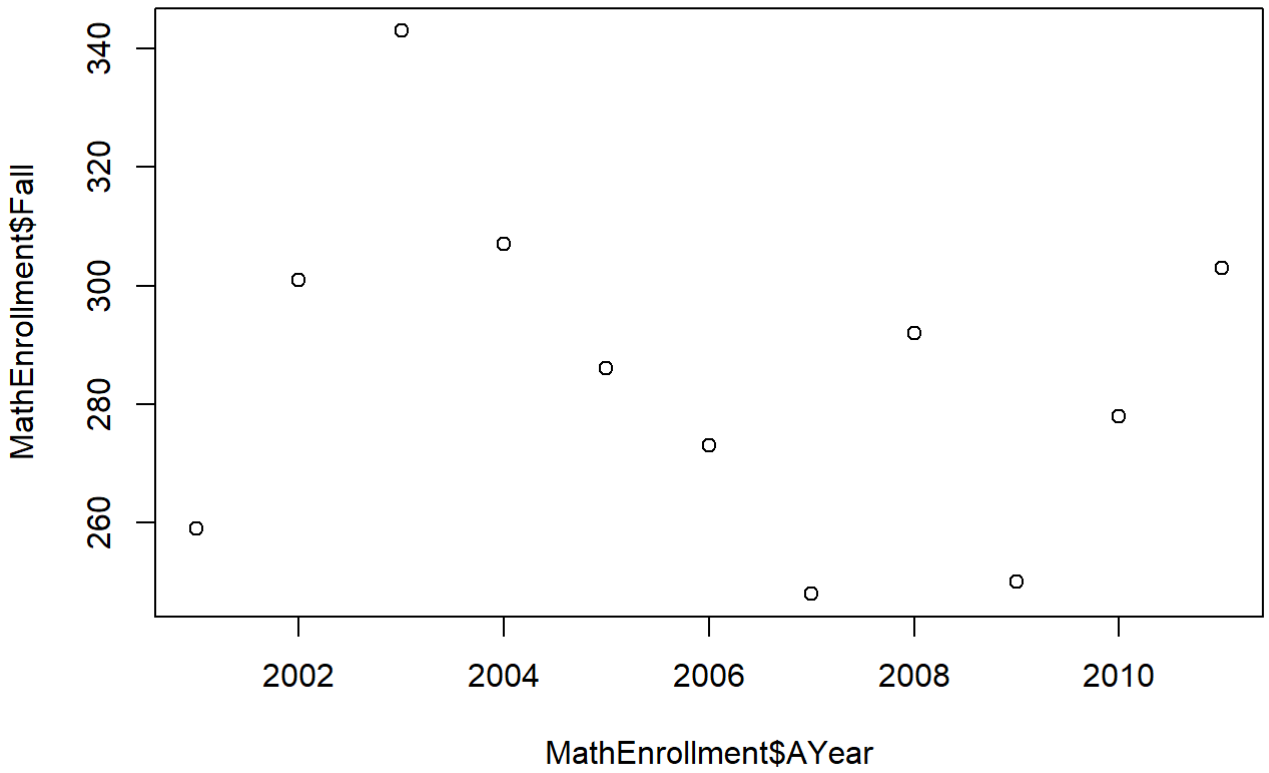
```
##        X            AYear           Fall           Spring
##  Min.   : 1.0   Min.   :2001   Min.   :248.0   Min.   :206.0
##  1st Qu.: 3.5   1st Qu.:2004   1st Qu.:266.0   1st Qu.:238.0
##  Median : 6.0   Median :2006   Median :286.0   Median :254.0
##  Mean   : 6.0   Mean   :2006   Mean   :285.5   Mean   :257.8
##  3rd Qu.: 8.5   3rd Qu.:2008   3rd Qu.:302.0   3rd Qu.:285.5
##  Max.   :11.0   Max.   :2011   Max.   :343.0   Max.   :308.0
```

Including Plots

You can also embed plots, for example:

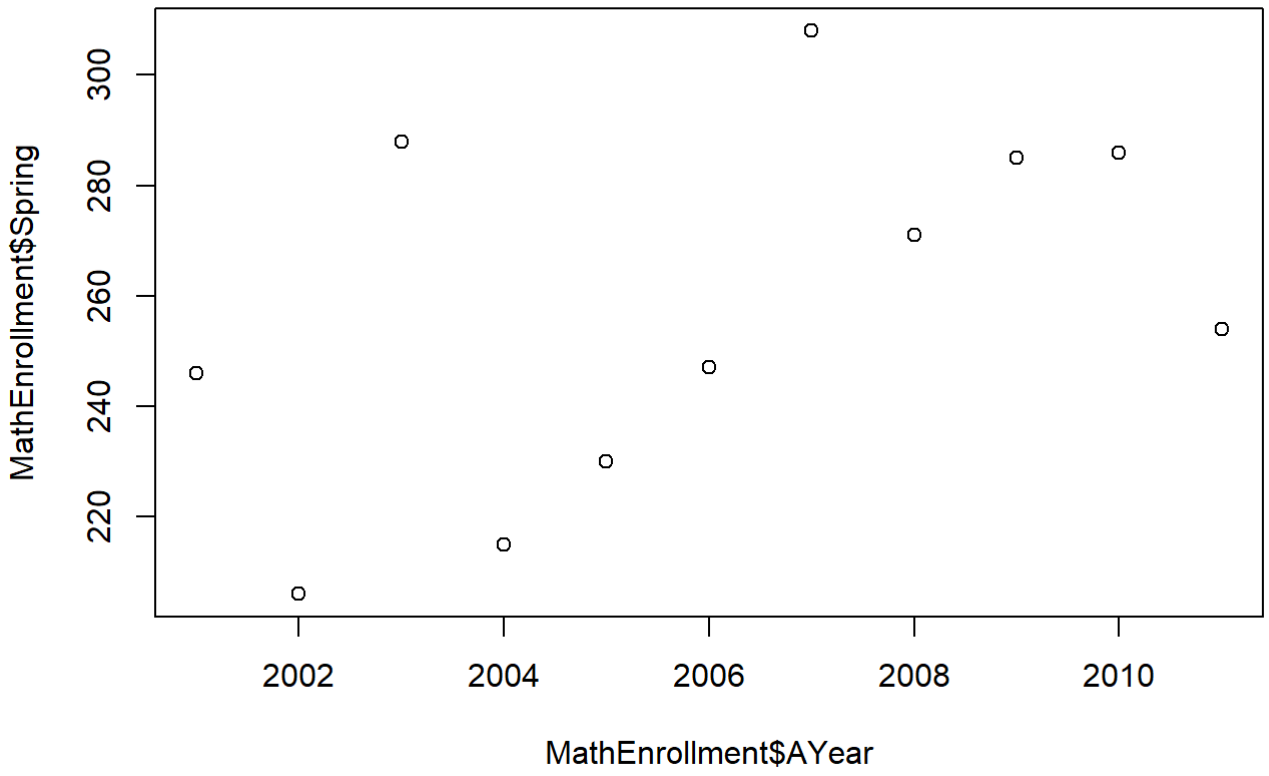
```
#Plotting Graphs for Year and Fall

plot(MathEnrollment$AYear, MathEnrollment$Fall)
```




```
#Plotting Graphs for Year and Spring

plot(MathEnrollment$AYear, MathEnrollment$Spring)
```



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