#R Example 1

```
#Create a data vector using c()
# = and <- are “assignment operators”
y = c(1, 2, 3, 4)
y
mean(y)
#R is case sensitive!
Y <- 20
Y

#Loading a "built-in" data set
#Use str() or View() to look at the data
data(chickwts)
str(chickwts)
View(chickwts)
summary(chickwts)

#Summary Statistics
#Approaches to referencing a single column in a data.frame
#1 $ Approach
mean(chickwts$weight)
#2 with() function
with(mean(weight), data = chickwts)
#3 data = option (not available with all functions!)
aggregate(weight ~ feed, data = chickwts, FUN = mean)
#4 attach(): Use with caution!
mean(weight)
attach(chickwts)
mean(weight)
detach(chickwts)

#Summary Graphics
boxplot(weight ~ feed, data = chickwts, col = "grey")
```

```
> #Create a data vector using c()
> # = and <- are “assignment operators”
> y = c(1, 2, 3, 4)
> y
[1] 1 2 3 4
> mean(y)
[1] 2.5
> #R is case sensitive!
> Y <- 20
> Y
[1] 20
```

```
> #Loading a "built-in" data set
> #Use str() or View() to look at the data
> data(chickwts)
> str(chickwts)
'data.frame':      71 obs. of  2 variables:
 $ weight: num  179 160 136 227 217 168 108 124 143 140 ...
 $ feed  : Factor w/ 6 levels "casein","horsebean",..: 2 2 2 ...
> View(chickwts)
> summary(chickwts)
     weight             feed
 Min.   :108.0   casein   :12
 1st Qu.:204.5   horsebean:10
 Median :258.0   linseed  :12
 Mean   :261.3   meatmeal :11
 3rd Qu.:323.5   soybean  :14
 Max.   :423.0   sunflower:12
>
> #Summary Statistics
> #Approaches to referencing a single column in a data.frame
> #1 $ Approach
> mean(chickwts$weight)
[1] 261.3099
> #2 with() function
> with(mean(weight), data = chickwts)
[1] 261.3099
> #3 data = option (not available with all functions!)
> aggregate(weight ~ feed, data = chickwts, FUN = mean)
       feed   weight
1    casein 323.5833
2 horsebean 160.2000
3   linseed 218.7500
4  meatmeal 276.9091
5   soybean 246.4286
6 sunflower 328.9167
> #4 attach(): Use with caution!
> mean(weight)
Error in mean(weight) : object 'weight' not found
> attach(chickwts)
> mean(weight)
[1] 261.3099
> detach(chickwts)
>
```

```
> #Summary Graphics
> boxplot(weight ~ feed, data = chickwts, col = "grey")
```