

Joshua Durana
CS 4375.003

A.

```
Reading line 1
Heading: rm,medv
Length 506
Closing file Boston.csv
```

```
RM Stats
Sum: 2923
Mean: 5.77668
Median: 6.209
Range: 5.219
```

```
MEDV Stats
Sum: 11190
Mean: 22.1146
Median: 21.2
Range: 45
```

```
Covariance: 4.70628
Correlation: 0.590568
```

B.

Using the built in functions in R is much easier to use than coding my own functions in C++. But, in C++ it's easier to format or change certain aspects of my output.

C.

Mean is the average of all the values in the data, median is the middle value of the data, and range is the difference between the highest and lowest value in the data. These help measure what's the most common values of our data set, and figure out which are the outliers of our dataset.

D.

Covariance measures how the change in one variable changes the other variable, and correlation measures whether 2 variables are positively, negatively, or not correlated at all. These will help us whether one of these variables can be used to accurately predict the other.