**IST687 – Doing some initial data analysis – HW 2**

**Reminders of things to practice from last week:**

Assignment arrow <-

The combine command c( )

Descriptive statistics mean( ) sum( ) max( )

Arithmetic operators + - \* /

Boolean operators > < >= <= == !=

Conditional statement if (condition) “true stuff” else “false stuff”

**Step A: Initialize an ‘arrests’ dataframe**

1. Copy USArrests into a new variable (called ‘arrests’)

**Step B: Explore the assault rate**

1. Write a comment: Is a higher or lower assault rate best?
2. Which state has the best assault rate?

**Step C: Explore the murder rate**

1. Which state has the highest murder rate?
2. Create a sorted dataframe, based on descending murder rate
3. Show the 10 states with the highest murder rate
4. What is the value of the 20'th row, third column (in the sorted dataframe)? Use R code (not visual inspection)

**Step D: Which state is the least safe? Explain your logic**

1. Write the R code to determine your answer
2. Write a comment to explain your logic