

1. Write a program to find the outliers using Box and Whisker's criterion discussed in the class.
2. Make two vectors:  
`X<-c(1,2,5,10,12)`  
`Y<-c(2,5,1,0,12)`
  - a. Find the values that are contained in both X and Y
  - b. Find values that are in x but not in y and (vice versa)
  - c. Construct a vector that contains all values contained in either X or Y, and compare this vector to `c(X,Y)`

Load USArrests data set.

3. Which states has most and least assault, murder, and rape arrests.
4. Which states are in the bottom 25% of murder and in the top 25% of

the murder.

5. The following function calculates the mean and standard deviation of a numeric vector

```
Fn1<-function(x){  
  
Mean1<- mena(x)  
  
Sd1<-sd(x)  
  
return(mean = mean1, sd = sd1)  
  
}
```

Modify the function so that: (a) the default is to use `rnorm` to generate 30 random normal numbers, and return the standard deviation, (b) if there are missing values, the mean and standard deviation are calculated for the remaining values.

- 6.