**Confidence Interval Using R**

**Example 1**

The sample mean is 5, the standard deviation is 2, and the sample size is 30. In this example use a 95% confidence level and find the confidence interval. The commands to find the confidence interval in R are the following:

a **<-** 5

s **<-** 2

n **<-** 30

error **<-** qnorm(0.975)**\***s**/sqrt**(n)

left **<-** a**-**error

right **<-** a**+**error

**Example 2**

The sample mean is 5, the sample standard deviation is 2, and the sample size is 20. Use a 95% confidence level and to find the confidence interval. The commands to find the confidence interval in R are the following:

a **<-** 5

s **<-** 2

n **<-** 20

error **<-** qt(0.975,df**=**n-1)**\***s**/sqrt**(n)

left **<-** a**-**error

right **<-** a**+**error

**Example 3**

In this example we use one of the data sets given in the Times

w1 **<-** read.csv(file**=**"w1.dat",sep**=**",",head**=TRUE**)

**summary**(w1)

**length**(w1**$**vals)

**mean**(w1**$**vals)

sd(w1**$**vals)

error **<-** qt(0.975,df**=length**(w1**$**vals)-1)**\***sd(w1**$**vals)**/sqrt**(**length**(w1**$**vals))

error

left **<-** **mean**(w1**$**vals)**-**error

right **<-** **mean**(w1**$**vals)**+**error