**Chapter 6.4 Excel Instructions**

Open the **newbalance.xlsx** file in the Student Data files folder.

1. Compute the sample mean for the sample data.
   1. Type the formula “=AVERAGE(A2:A71)”
2. Compute the sample standard deviation for the sample data
   1. Type the formula “=STDEV.S(A2:A71)”
3. Now find the 95% confidence interval to estimate the population mean manually
   1. Use T.INV.2T to compute the value of
   2. Type the formula “T.INV.2T(1-0.05, 70-1)”

**What is the interval estimate for the population mean credit card balance?**

1. Find the confidence interval using Excel
   1. Click the Data tab on the Ribbon
   2. In the analysis group, Click Analysis
   3. When the Data Analysis dialog box appears, choose the **Descriptive Statistics** from the list of Analysis Tools
   4. When the **Descriptive Statistics** dialog box appears:
      1. Enter A1:A71 in the **Input Range** box
      2. Select **Grouped By Columns**
      3. Select **Labels in First Row**
      4. Select **Output Range:**
         1. Enter D6 in the Output Range box
      5. Select summary Statistics
      6. Select Confidence Level for Mean
         1. Enter 95 in the Confidence Level for Mean Box
      7. Click Ok
   5. In E23 enter the formula “E8-E21”
   6. In E24 enter the formula "E8 + E21”

Open the **teetimes.xlsx** file in the Student Data files folder.

**Sample Size** =COUNTA(A2:A901)

**Response of Interest** Yes

**Count for Response** =COUNTIF(A2:A901,D3)

**Sample Proportion** =D4/D2

**Confidence Coefficient** 0.95

**Level of Significance** =1-D7

**Z Value** =NORM.S.INV(1-D8/2)

**Standard Error** =SQRT(D5\*(1-D5)/D2)

**Margin of Error** =D9\*D11

**Point Estimate**  =D5

**Lower Limit** =D14-D12

**Upper Limit** =D14+D12