

## Elementary Statistics

### Computer Assignment 1

Using Microsoft EXCEL 2003, follow the steps below. For Microsoft EXCEL 2007 instructions, go to the next page. For Microsoft 2010 and 2007 instructions with screen copies, go to the end of the document.

1. Go to your programs menu and click on Microsoft Excel.

Follow the steps given below to find the **summary statistics** of the data from problem 3.8 (page 53). [Data: 51.4, 50.4, 45.6, 44.8, 44.6, 42.9, 41.6, 40.6, 40.1, 40.1, 39.8, 39.5, 38.6, 38.5, 38.3]

In EXCEL spreadsheet enter the data in column A (All the 15 observations on column A).

Click on Tools, Data Analysis, Descriptive Statistics, OK.

Then click on Input Range and highlight the data or type “\$A\$1:\$A\$15” without quotes.

Click on Summary Statistics and click on OK.

**Print the results.**

If Data Analysis is not available under Tools, Click on Add-ins. Then click on Analysis Toolpak (in the box). Click on OK.

2. Construct a **histogram** for the above data.

Click on Sheet 1 in which you have your data.

On Column B type 36, 40, 44, 48, 52.

Click on Tools, data Analysis, Histogram.

For Input Range, highlight the data.

For Bin Range highlight the numbers on column B.

Click on Chart Output and then OK.

You can enlarge the diagram by dragging it from its corners.

**Print the results.**

You may cut and paste the excel outputs to a word document.

3. Go to tools, Data Analysis, Random Number Generation. In the dialogue box fill in the following information.

Number of variables is one.

Number of random numbers is 100.

Distribution is Normal. Mean is zero.

Standard deviation is one.

Click on OK.

This will generate one hundred random standard normal numbers in column A.

Type -3.5, -3.0, -2.5, -2.0, -1.5, -1.0, -0.5, 0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 on column B.

Back to Tools, Data Analysis, and Histogram. Input range is A (\$A\$1:\$A\$100). Bin range is B(\$B\$1:\$B\$15). Click on Chart output. Click on OK.

1. Go to your programs menu and click on Microsoft Excel.

Follow the steps given below to find the **summary statistics** of the data from problem 3.8 (page 53).

In EXCEL spreadsheet enter the data in column A (All the 15 observations on column A).

Click on Tools, Data Analysis, Descriptive Statistics, OK.

Then click on Input Range and highlight the data or type “\$A\$1:\$A\$15” without quotes.

Click on Summary Statistics and click on OK.

**Print the results.**

For Excel 2007:

If you do not see Data Analysis on the tool bar, click on the button on the left top corner. A window will open and in it at the bottom left you will see excel options. Click on excel options. Another window will open. Click on Add-ins on the leftmost column. Highlight Analysis Toolpack and click on “go.” Another window will open. Check the box for Analysis Toolpack and click on “ok.” You will now see data Analysis on your toolbar.

2. Construct a **histogram** for the above data.

Click on Sheet 1 in which you have your data.

On Column B type 36, 40, 44, 48, 52.

Click on Tools, data Analysis, Histogram.

For Input Range, highlight the data.

For Bin Range highlight the numbers on column B.

Click on Chart Output and then OK.

You can enlarge the diagram by dragging it from its corners.

**Print the results.**

You may cut and paste the excel outputs to a word document.

3. Go to tools, Data Analysis, Random Number Generation. In the dialogue box fill in the following information.

Number of variables is one.

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Distribution is Normal. Mean is zero.

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Click on OK.

This will generate one hundred random standard normal numbers in column A.

Type -3.5, -3.0, -2.5, -2.0, -1.5, -1.0, -0.5, 0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 on column B.

Back to Tools, Data Analysis, and Histogram. Input range is A (\$A\$1:\$A\$100).

Bin range is B(\$B\$1:\$B\$15). Click on Chart output. Click on OK.

## Data Analysis in Excel 2010:

Go to file

Click on options

Click on Add-Ins

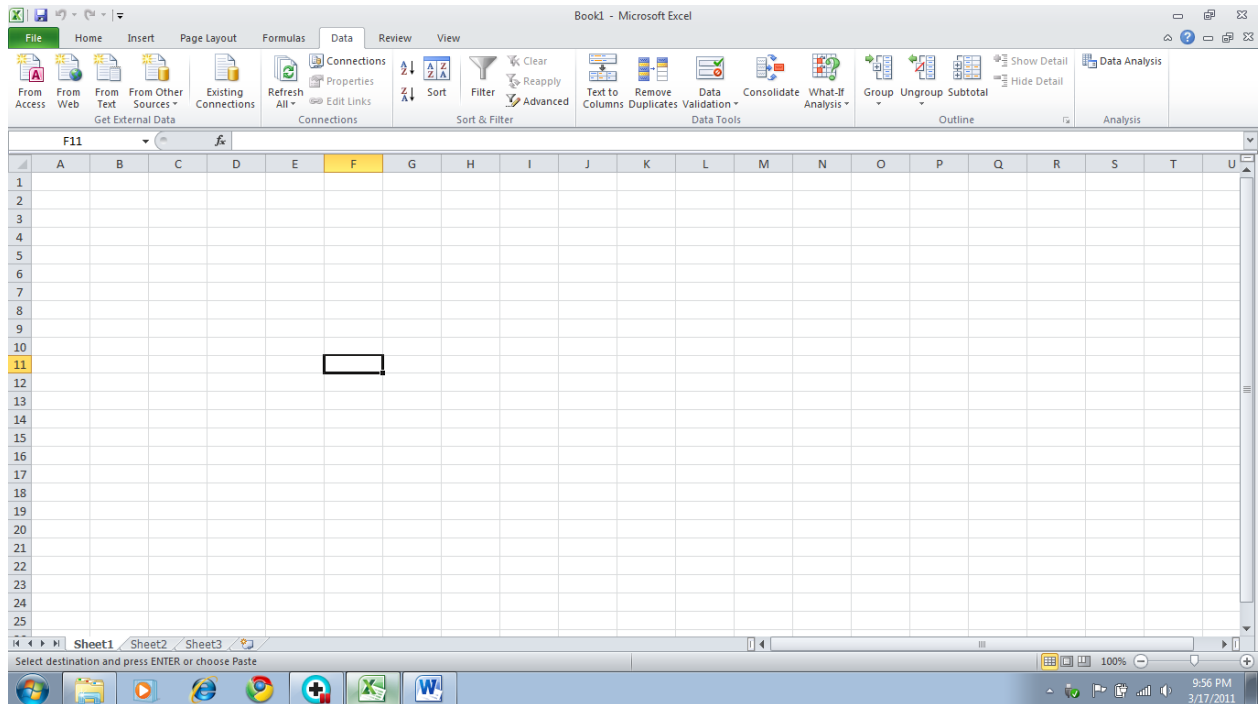
Highlight Analysis ToolPak

Click on OK

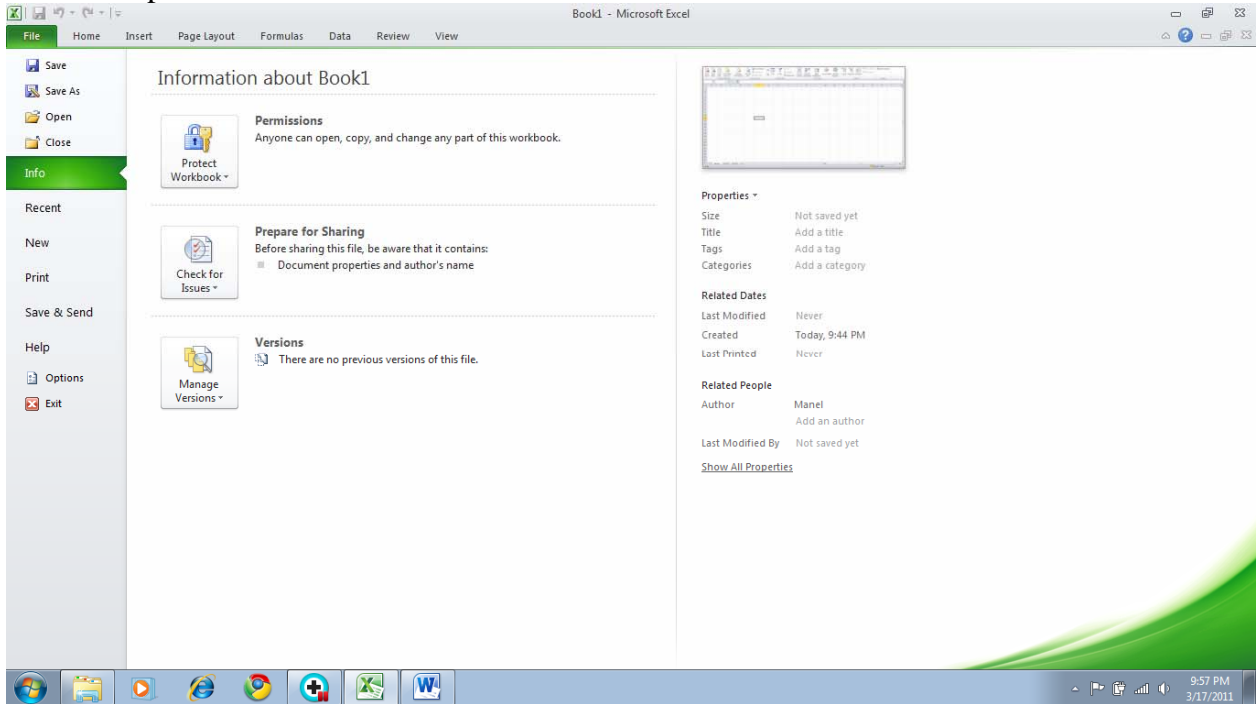
Now you will see Data Analysis Under Data

Microsoft Excel 2010

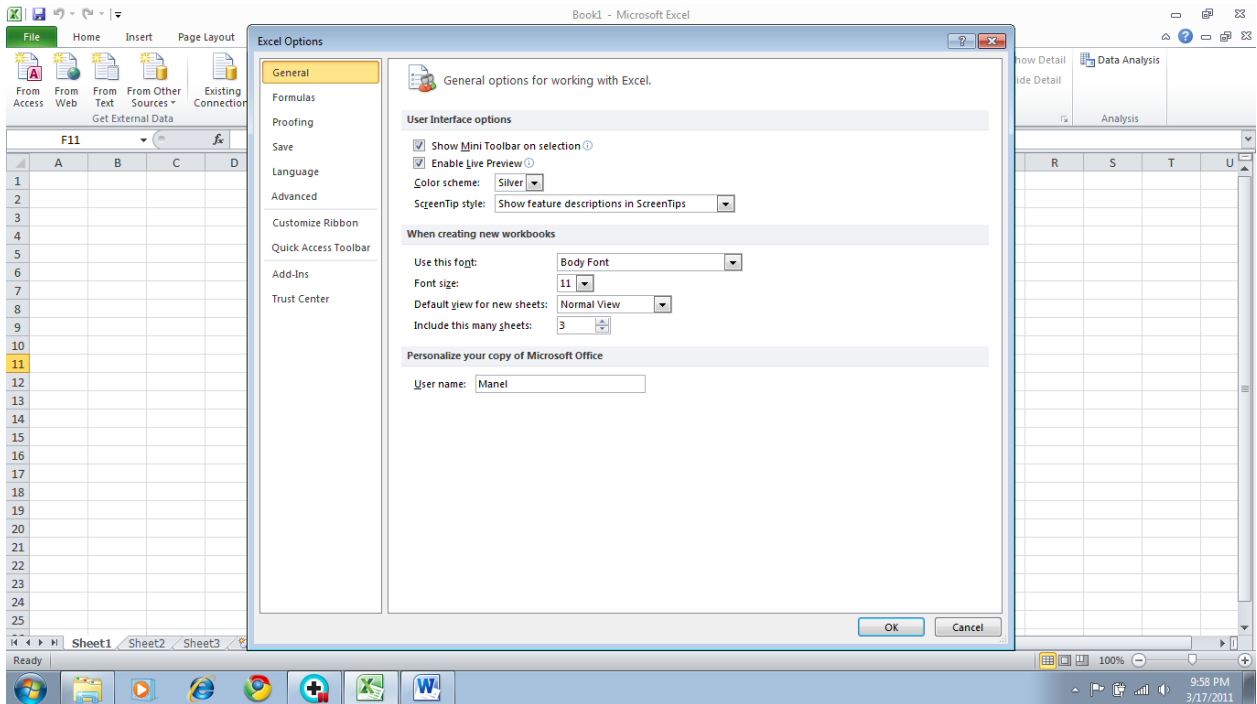
Click on file

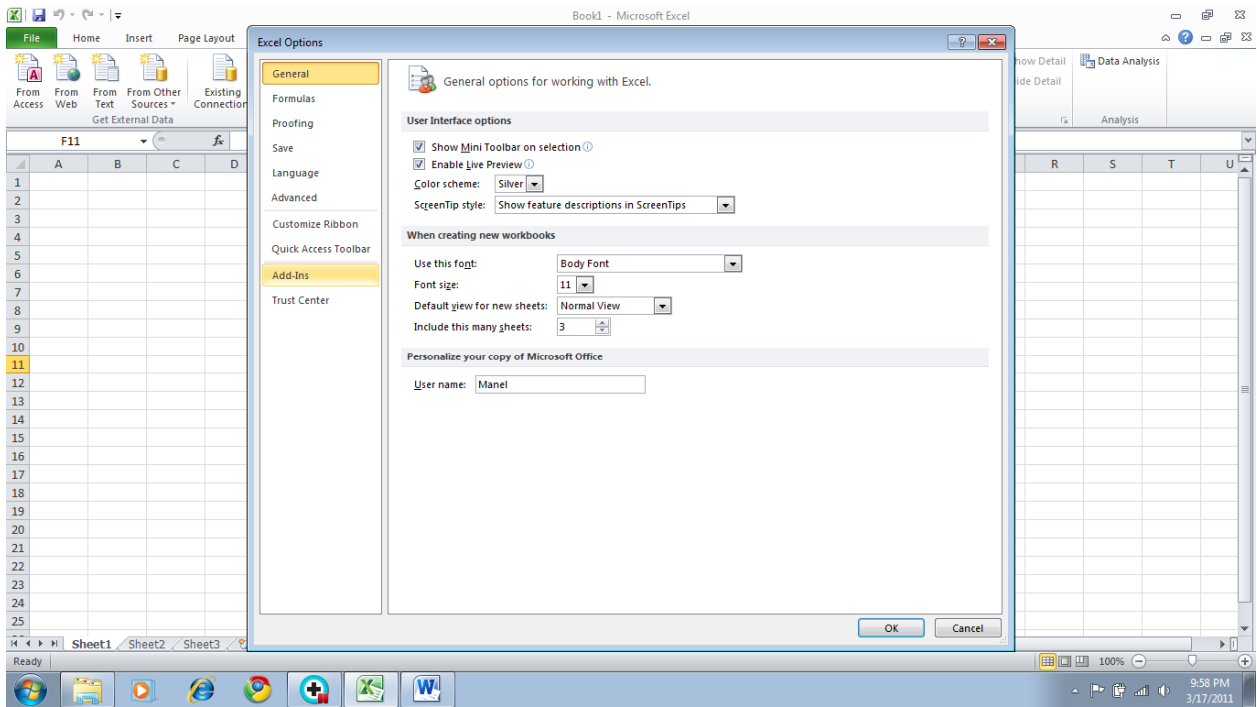


## Click on Options

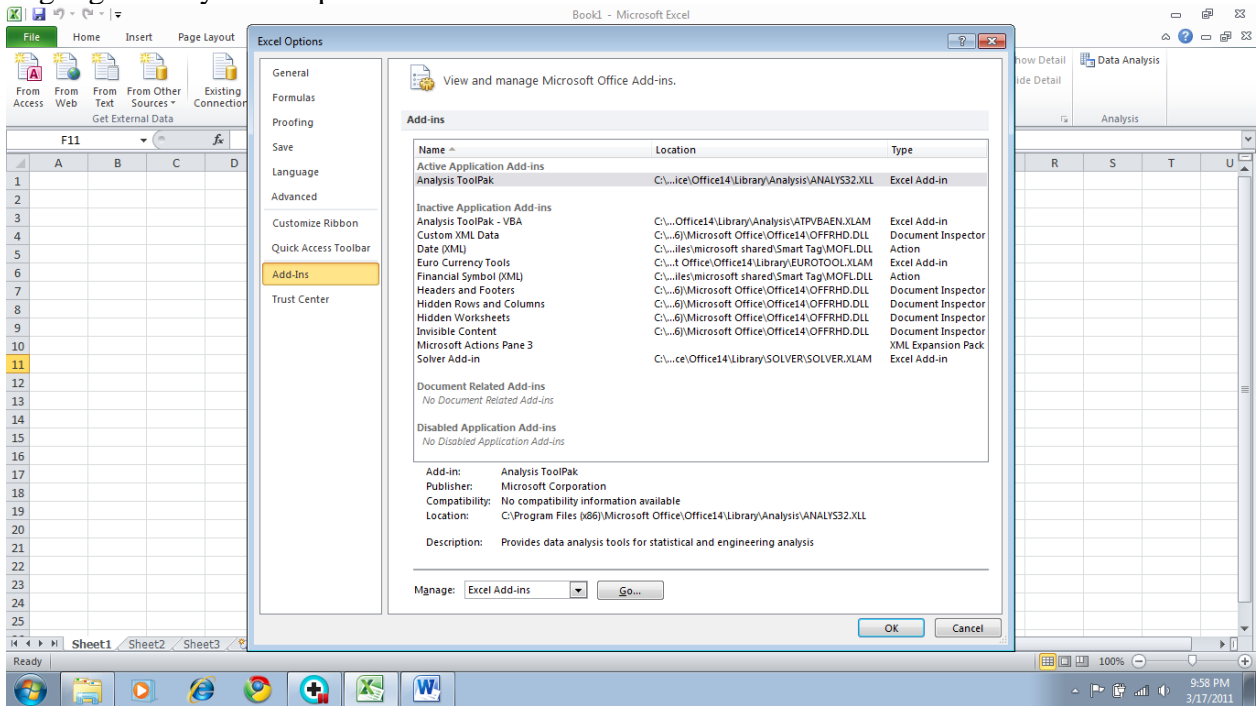


## Click on Add-Ins

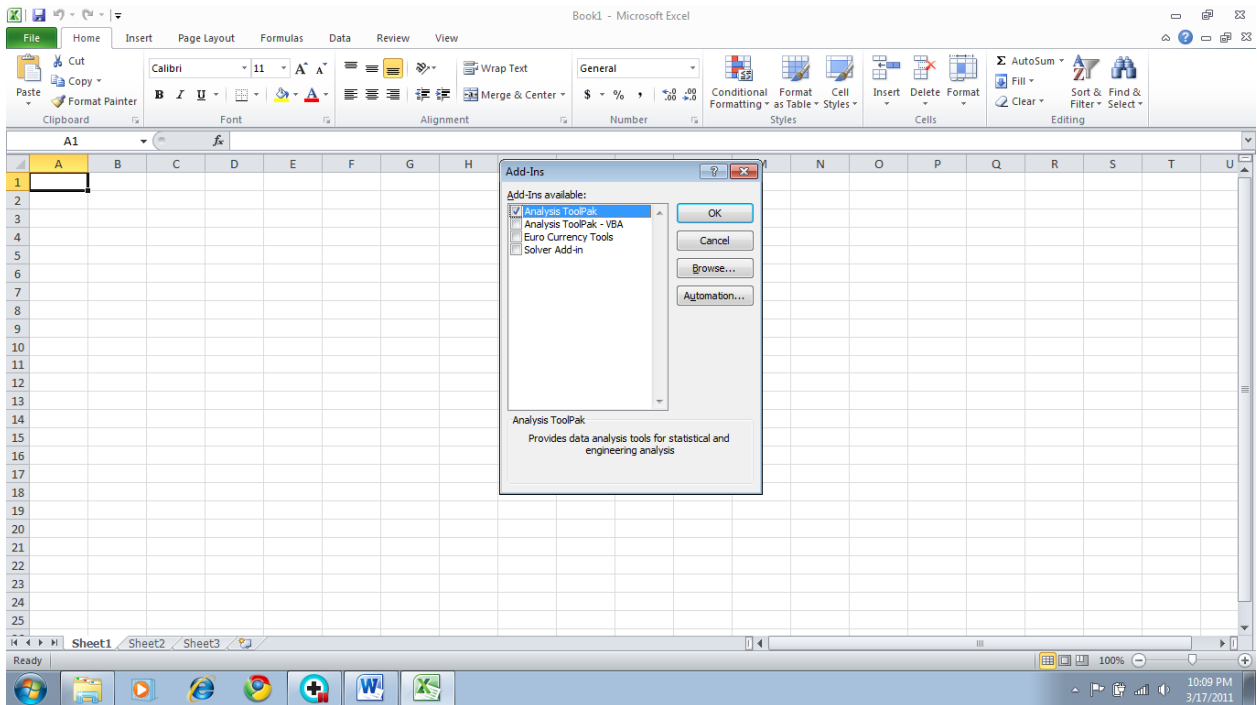




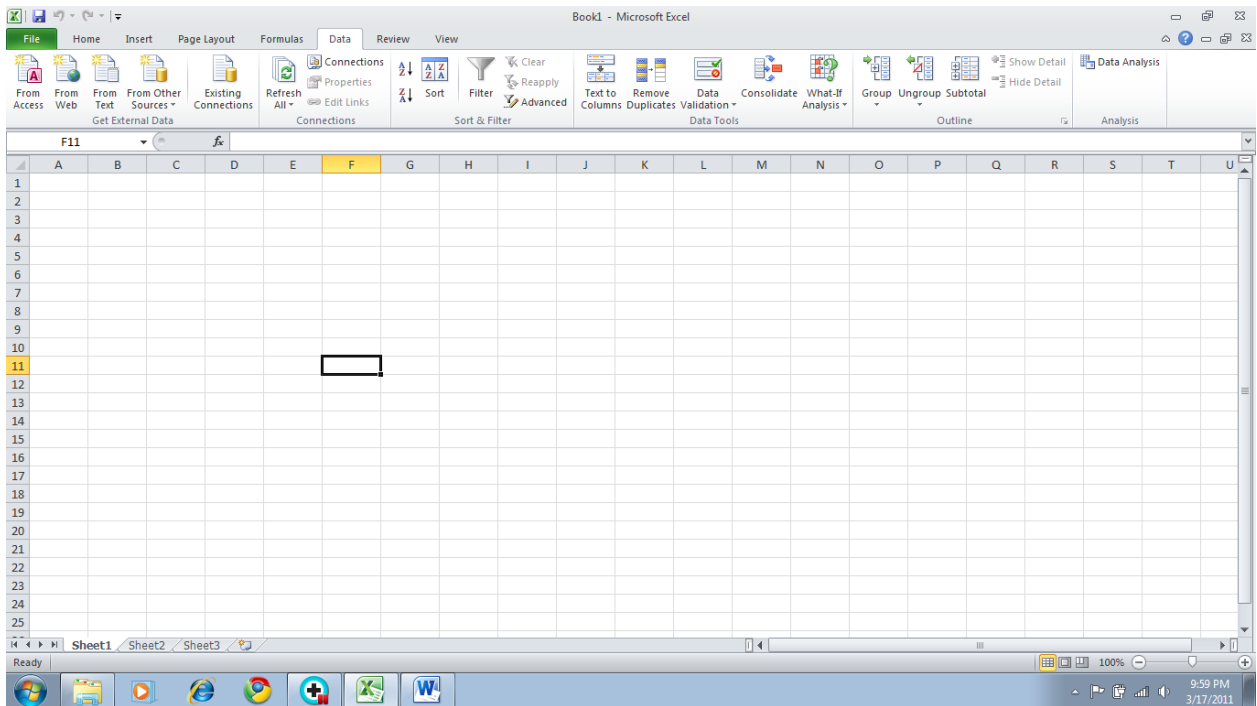
## Highlight Analysis Toolpak and click on Go



## Check Analysis ToolPak



Under data Tab you will see Data Analysis



Book1 - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View

From Access From Web From Text From Other Sources Existing Connections Refresh All Properties Edit Links Connections Sort & Filter Filter Clear Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What-If Analysis Group Ungroup Subtotal Show Detail Hide Detail Data Analysis

F11

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

A B C D E F G H I J K L M N O P Q R S T U

Data Analysis

Analysis Tools

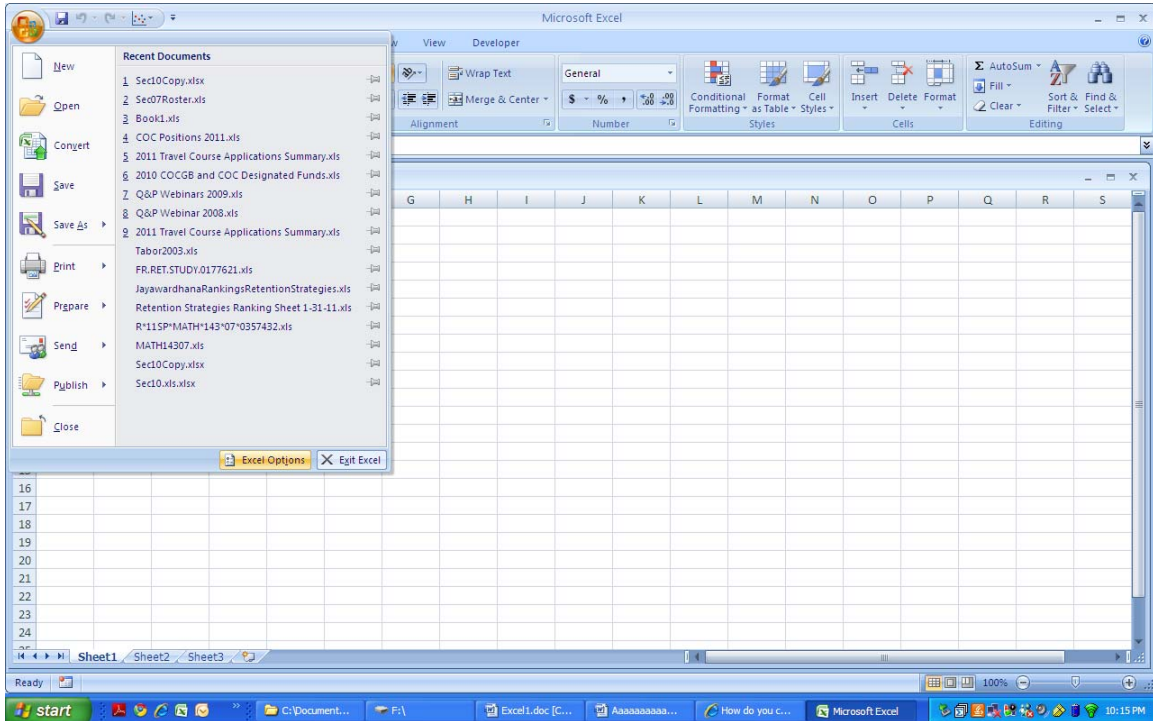
- Anova: Two-Factor Without Replication
- Correlation
- Covariance
- Descriptive Statistics**
- Exponential Smoothing
- F-Test Two-Sample for Variances
- Fourier Analysis
- Histogram
- Moving Average
- Random Number Generation

OK Cancel Help

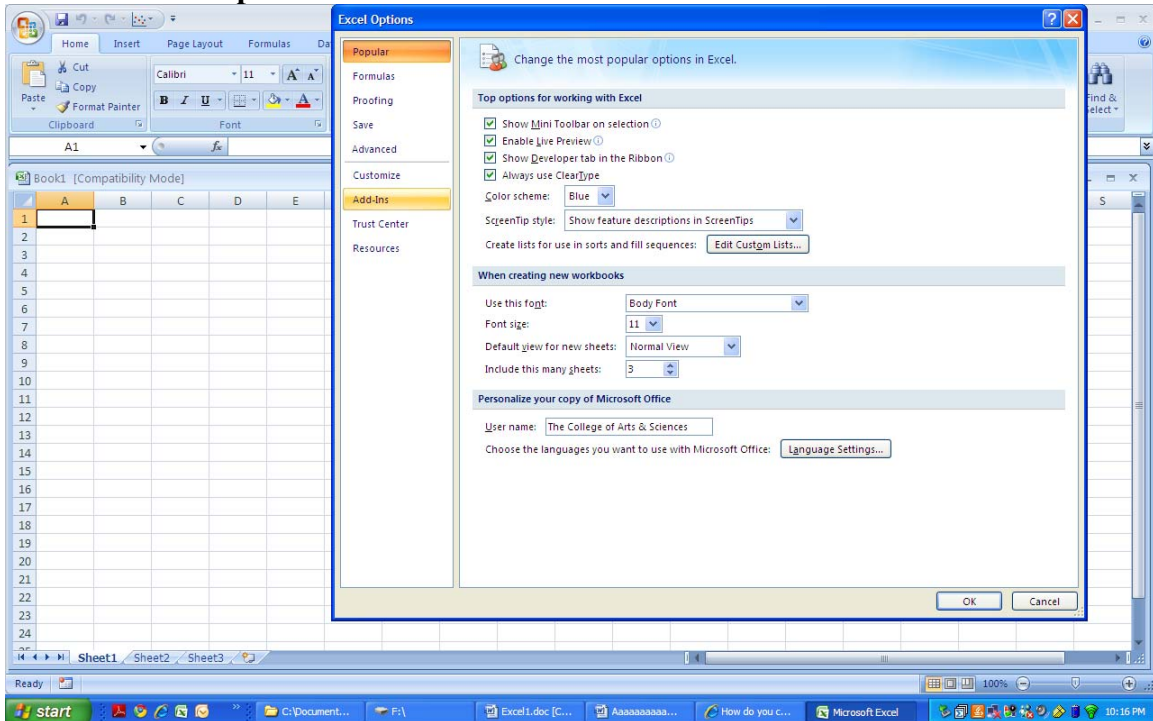
Sheet1 Sheet2 Sheet3

Ready 100% 10:00 PM 3/17/2011

If you are using Excel 2007 use the following steps:

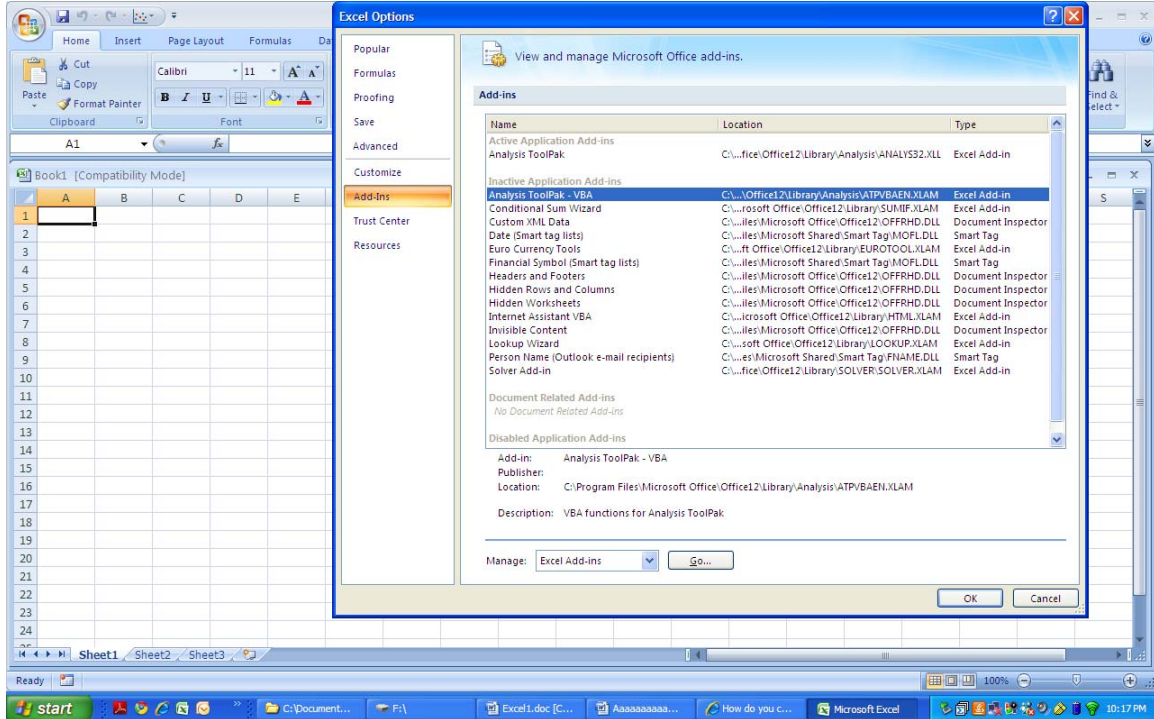


Click on Excel Options

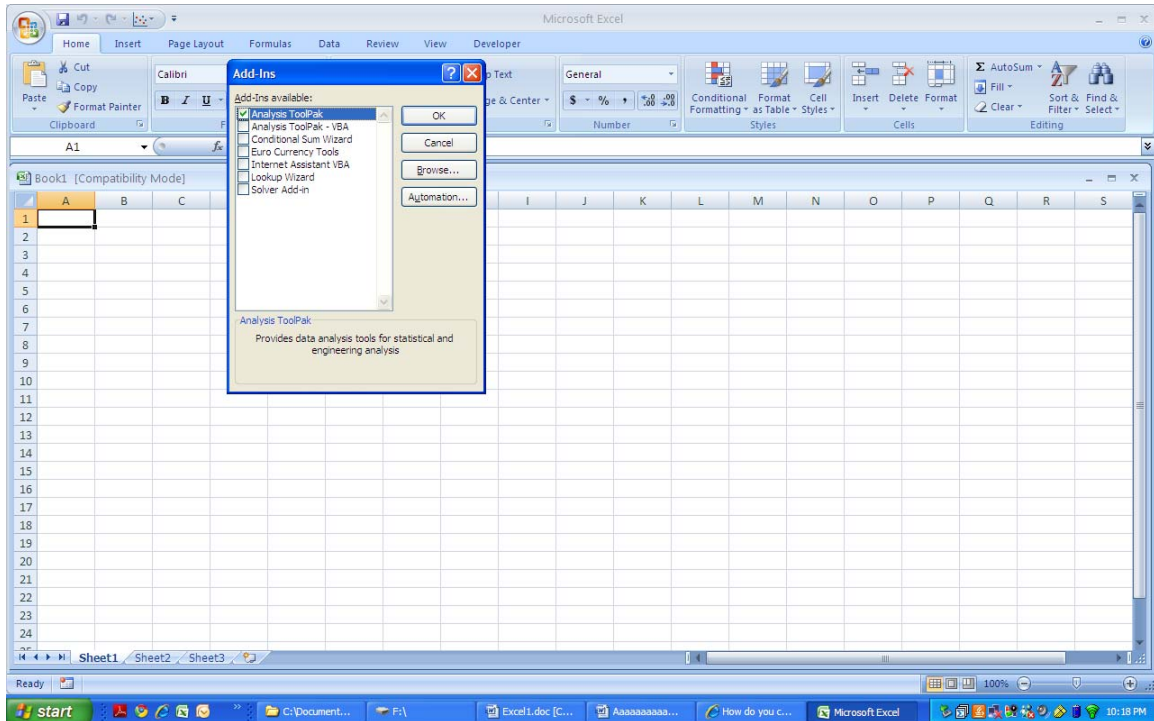




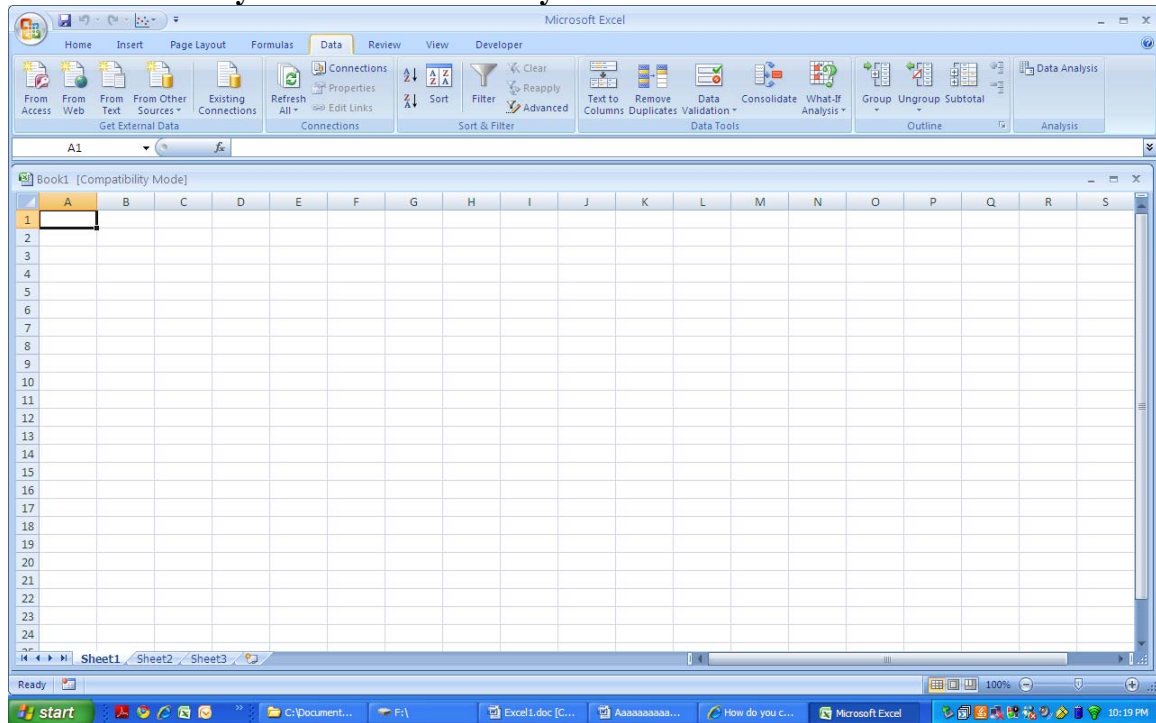
**Click on Add-Ins**  
**Highlight Analysis ToolPak**  
**Click on Go**



**Check Analysis ToolPak**  
**Click OK**



## Under data Tab you will see Data Analysis



## Click on Data Analysis

