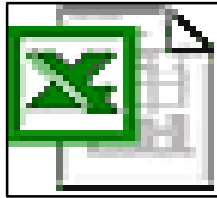


Mathematics LBS 4

Spreadsheet Mathematics: Statistics and Graphing

Lab 1: Entering , Formatting and Saving Data in an Excel Spreadsheet



Microsoft Excel Logo and all screens captured by permission of Microsoft

Goal To enter, format and save data in an Excel Spreadsheet

Learning Outcomes After completing this section, the student should be able to

- open a Microsoft Excel worksheet
- enter data in a worksheet
- format data in the worksheet
- save the data in the worksheet
- complete several practice assignments

Prior Learning No prior learning is required for this lab

Contents

- open the **Microsoft Excel Spreadsheet Program**
- enter data in a worksheet
- format data in a worksheet
- save a worksheet
- print up a worksheet
- complete two practice assignments
- discuss questions or concerns about the assignments with your teacher

Spreadsheet Mathematics: Statistics and Graphing

Lab 1: Entering, Formatting and Saving Data in an Excel Spreadsheet

New Words: Excel, spreadsheet, worksheet, sheet, cell, row, column,

1. Open the Microsoft Excel Spreadsheet Program:

Click on **Start**, arrow to **Programs**, arrow to **Microsoft Office 97** and finally Click on **Microsoft Excel**. (On some computers, you can Click on the **Excel logo** to open Excel, or Click on the **Programs** and then **Microsoft Excel**)

2. How to “Get Around” in the Excel Worksheet:

The Excel worksheet is made up of sheets. You will see the tabs for Sheet 1, Sheet 2, and Sheet 3.

You will now see **Sheet 1** divided into **cells**, **rows** and **columns**.

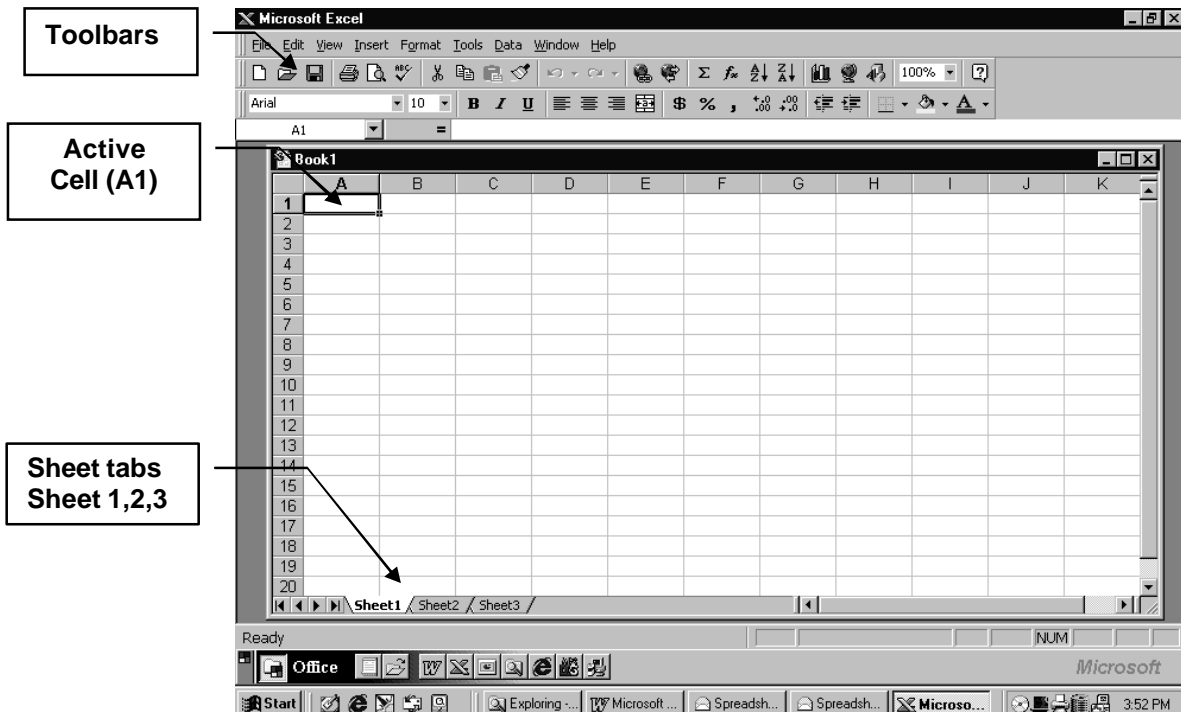
The **columns** are labelled **A, B, C, D.....**

The **rows** are numbered **1, 2, 3, 4, 5,**

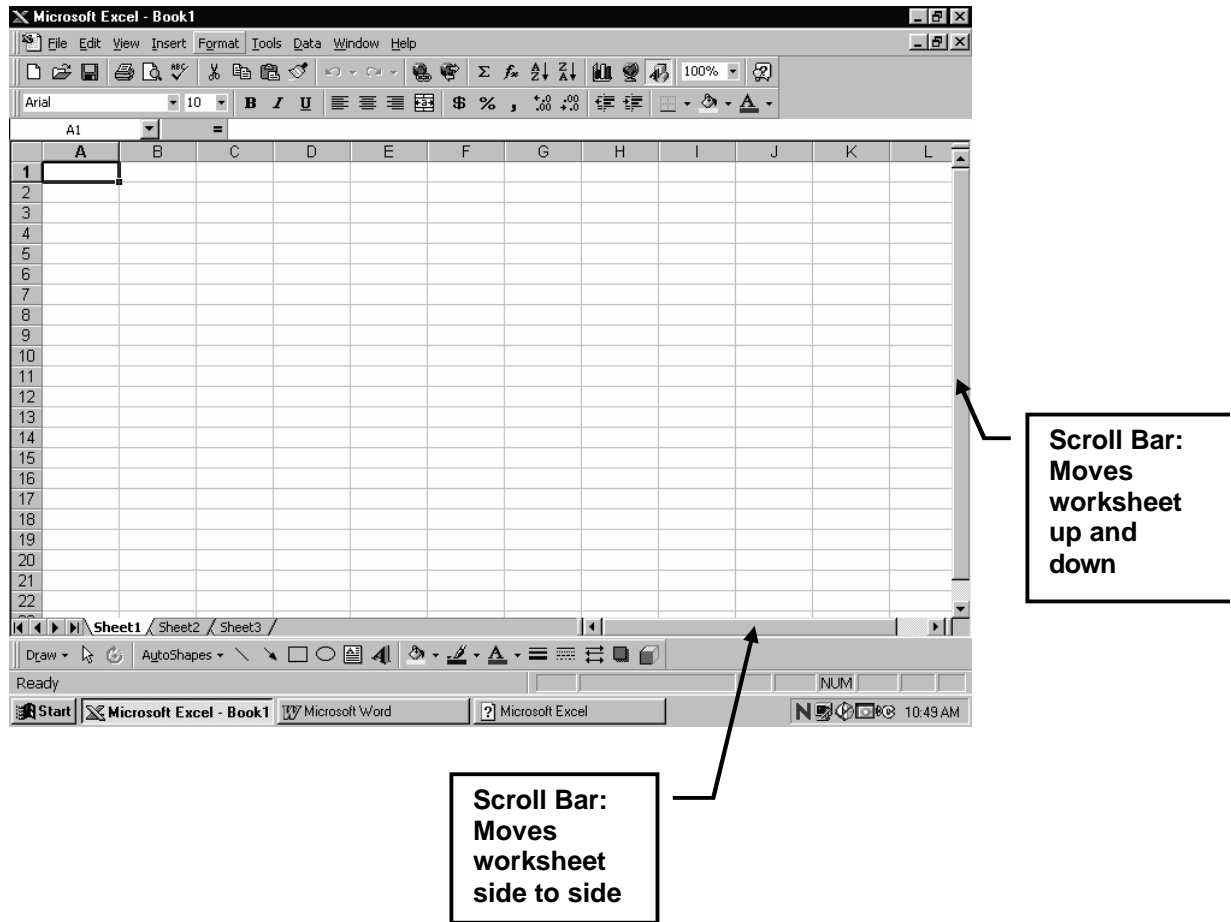
Each little rectangle is called a **cell**. Each **cell** has a definite location on the worksheet.

We can give each cell a location label: **B7** is located in **column 2** and **row 7**
H11 is located in **column 8** and **row 11**

To make a cell **active**, place the mouse pointer which is a big **+** sign on the cell and left click with the mouse. You will see a big black border around the cell.



Scroll bars help get around the worksheet:



Note:

If you get lost in the Spreadsheet, Ctrl – Home, will bring you back to cell A1

Exercise 1:

- a. Make the following cells active: (you will soon see that you can only make one cell active at a time)

B2 C11 H9

- b. Another way to get around on the worksheet is to use arrow keys on the keyboard:

Up ↑ Down ↓ Right → Left ←

Use the arrow keys to make the following cells active:

A1 E5 G13

- c. You will also see that **Enter** key can be used to move the active cell down a column.

Use the **Enter** key to make the **cells** in **column 3** active one after the other down the column

3. **Enter Data in a Worksheet**

Now you will enter data in your worksheet. You will enter data in **Sheet 1**. Remember that you can enter data in the other sheets, labelled Sheet 2, Sheet 3. You can see the tabs for those sheets at the bottom of the worksheet screen. ([See previous page](#))

Exercise 2:

Enter the data on students and test marks in your worksheet:

Ten geology students had the following test marks:

<u>Student</u>	<u>Mark</u>
1	75
2	83
3	93
4	65
5	85
6	85
7	88
8	90
9	55
10	71

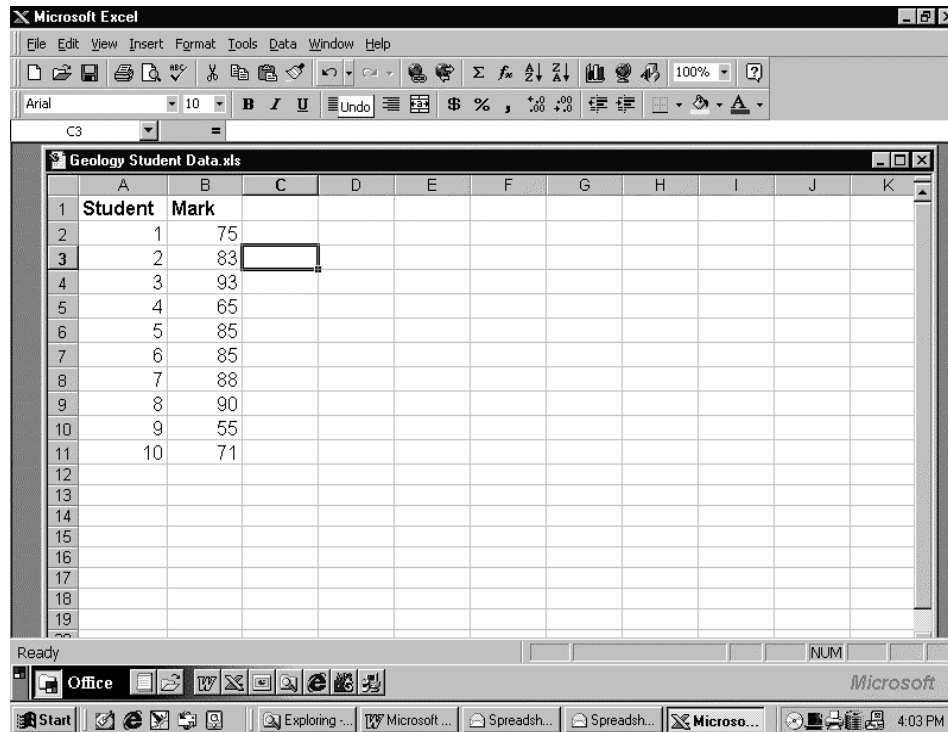
1. Go to **A1**. **Left Click** on the cell to make it active and type in the heading **Student**.
2. Go to **B1**. **Left Click** on the cell and type in the heading **Mark**.
If you make a mistake in a cell, you can edit it by double clicking on the cell. The pointer will now be a large **I** instead of a large **+**.
You may now correct your error. Try editing a cell before you go any further.
3. Enter the students' number data in **column A**.

4. Enter the students' mark data in **column B**.

Check to see that you have entered the data as given above.

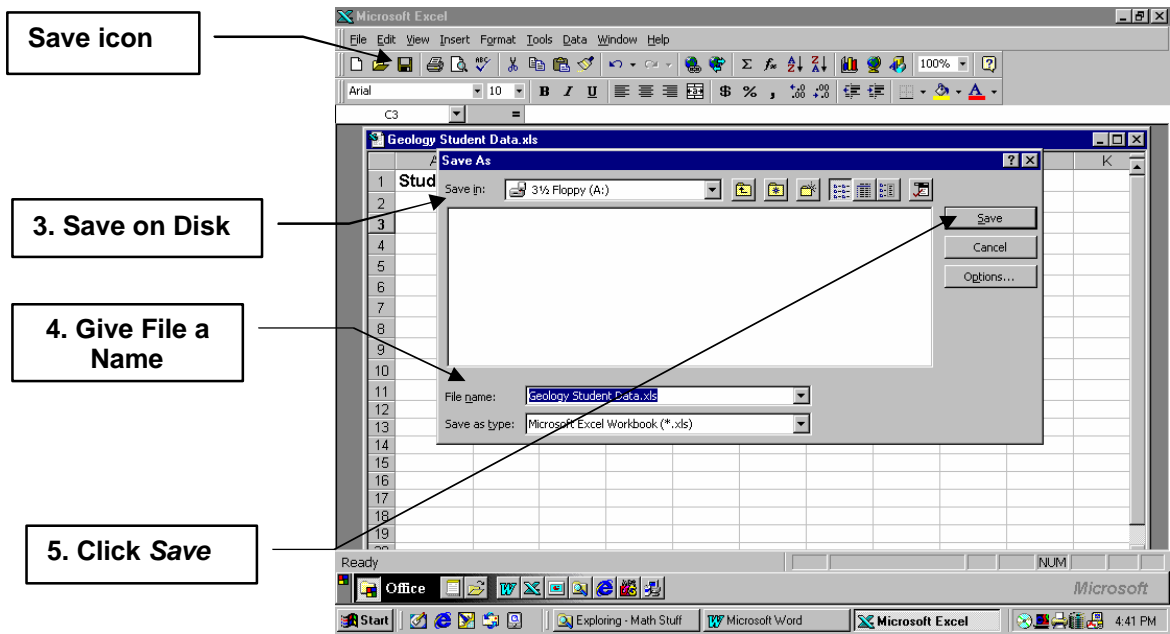
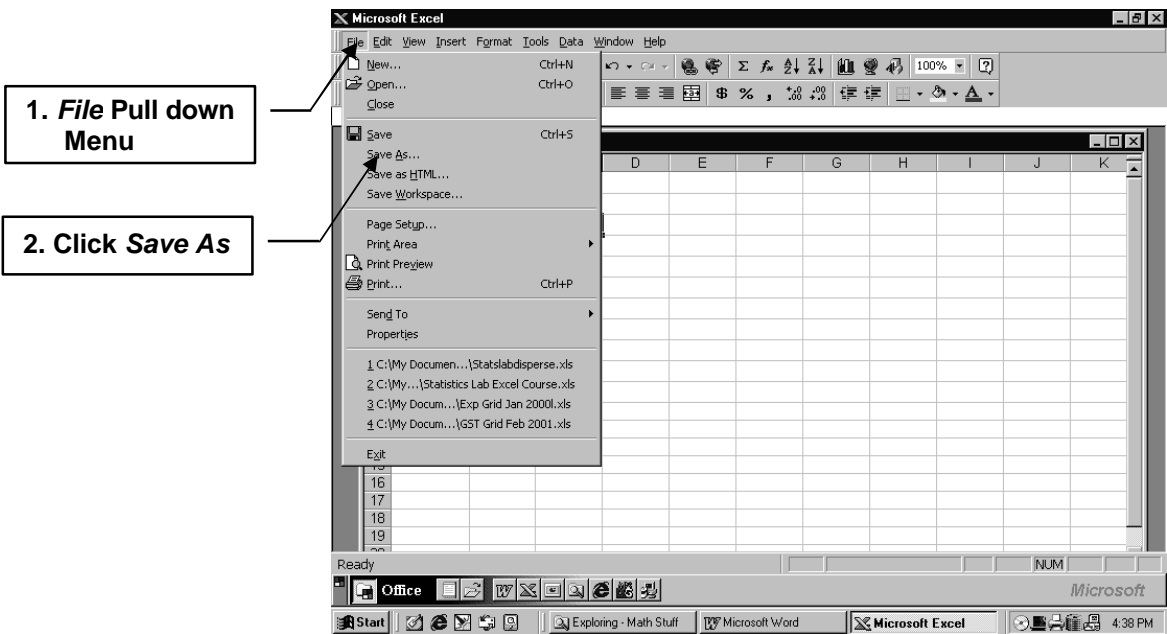
Edit any cell if necessary.

Your worksheet should look like the example given below.



4. Now is a good time to Save the Worksheet!

1. Click **File Pull down Menu**
2. Select **Save as**
3. Save on **3 ½ Floppy (A:)**
4. Under **File Name**, give the file a good descriptive name so that you can locate it easily. Let's use **Computer Math Lab 1**
5. Click **Save**
6. If you have difficulties, follow the screens shown on [next page](#):



5. How to “Dress up” or Format the Data in a Worksheet

There are many things you can do to "dress up" or format a worksheet. In this section we do some simple formatting. You can get as adventurous as you want as you get more familiar with the formatting commands

Exercise 3:

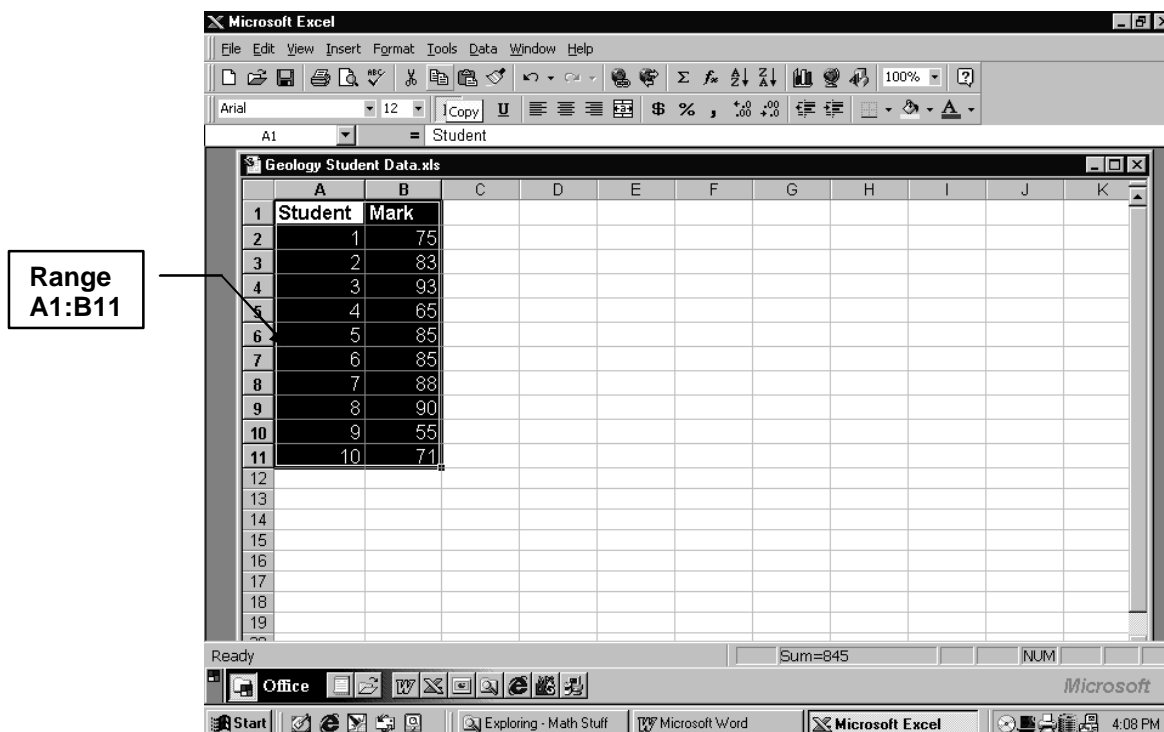
1. Select a **range** of cells to format. To select a **range**, click the mouse on the **upper left cell** in your range and hold and drag to the **bottom right cell** in the range. You will see a range of black cells with only the upper left cell white.

A **range** is identified as the **first** and **last cells selected** with a **colon** in between.

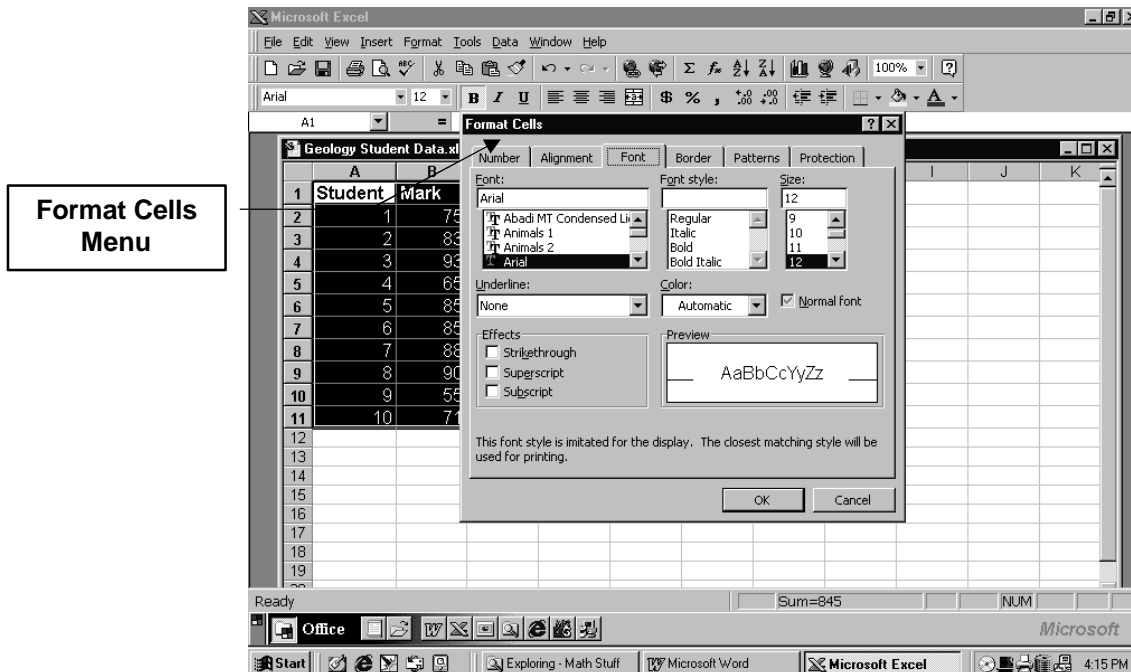
Try selecting the range **A1:B11** on your worksheet.

Have you selected all the data and the headings as well ?

Check with the example to see if you have the correct range highlighted.



2. Format the headings and data using the **Format** pull down menu on the toolbar.
 - a. Select the **range** that includes the headings, **Students** and **Marks**. (you just did this step in the example above)
 - b. Click on **Format** from the Toolbar.
 - c. Select **Cells**. You will see a wide selection of choices: **Number, Alignment, Font** etc.
 - d. Select **Font**. You will see more choices: **Font, Font Style, Size, Underline, Color**.
 - e. Experiment with the choices to see what you like best. Then **Click OK**.



3. If the column headings are too wide to fit into the cell, move the pointer to the little vertical line between **A** and **B**. The pointer will look like this:



Now **double Left Click** the mouse, and the columns will widen to fit the heading.

4. Next, select the range for your data.
Click on **Format** from the toolbar.
Select **Cells**.
Select **Alignment**.
Then under **Text alignment, Horizontal**, select **Centre**.
Then **Click OK**. You will see that your data is now centred in the columns.

Now, **resave the worksheet**, using the Save Icon on the Toolbar

It is important to keep resaving as you go along so all your hard work is not lost !

Practice Assignments:

Now, you will do two **Practice Assignments** on entering, formatting and saving data in an **Excel Spreadsheet**.

Show the practice assignments to your teacher after you have completed them. Discuss any problems or questions you have about these assignments with your teacher.

Use Sheet 2 and Sheet 3 for these practice assignments or open a new Excel worksheet if you want.

Remember to save your work as you go by clicking on the **Save icon** on the Excel toolbar.

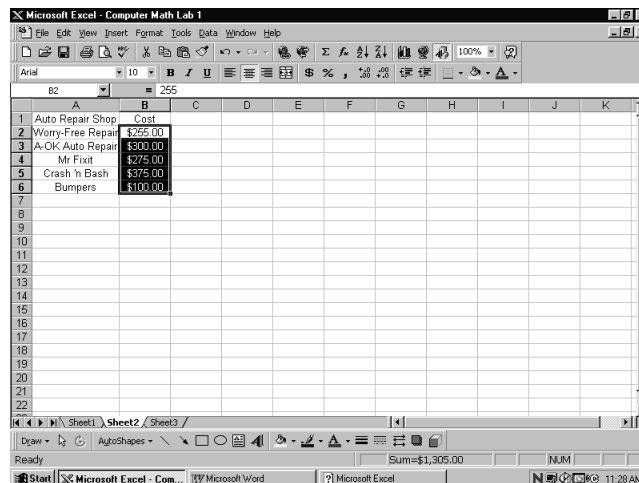
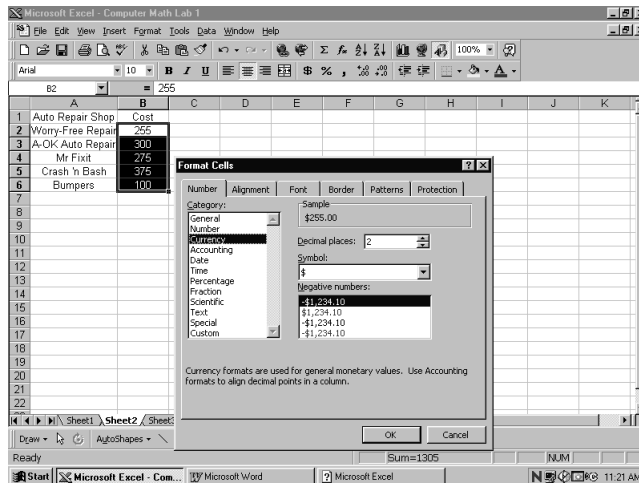
You can only use this **Save icon** after you have used **Save as** and have given the file a name and saved it to Floppy disk (or to the Hard Drive)

Before entering and formatting the data for Practice Assignment 1, check the following screens on:

1. How to Format Cells for Currency
2. How to Format Cells so Grids will show when spreadsheet is printed.

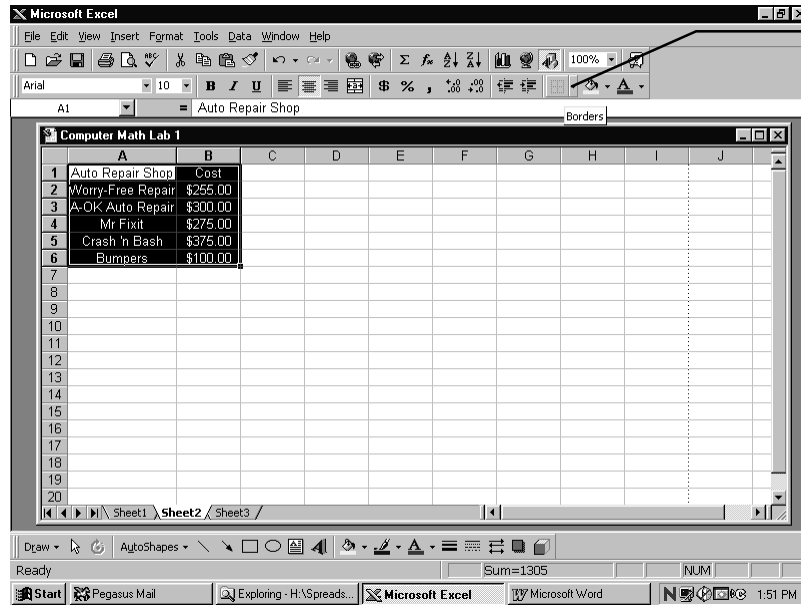
How To Format for Currency

1. Highlight the range for currency In Practice Assignment 1 is will be (B2:B6)
2. **Click on Format** on tool bar
3. **Select Number** and then choose **Currency**
4. You can select the number of decimal places. We will choose 2.
5. **Click on OK**
6. You will see that the numbers in the Cost column come up written with \$ sign and have two decimal places for cents.



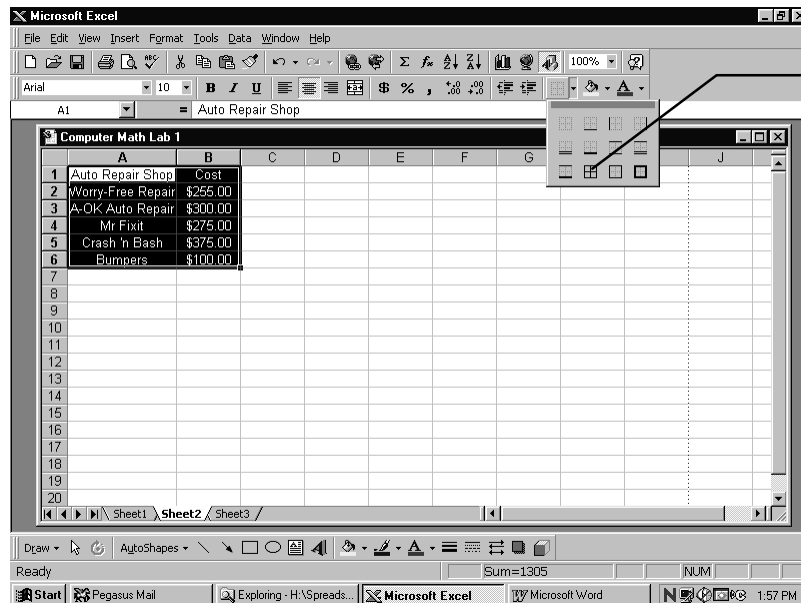
How To Format Grids in Spreadsheet

1. Select the range that you want to have a printed grid
2. Click on little arrow beside the Borders Icon on the toolbar



Little arrow
beside
borders
icon on

3. Note the choices that appear:



From choices,
click on the
"four squares"
grid"

Practice Assignment 1:

1. On your Excel Worksheet, **Click Sheet 2 Tab** at the bottom of the worksheet. You will go to a new clean worksheet.
2. Enter the following set of data on your new worksheet.

<u>Auto Repair Shop</u>	<u>Cost</u>
Worry-Free Repair	\$255
A-OK Auto Repair	\$300
Mr Fixit	\$275
Crash 'n Bash	\$375
Bumpers	\$100

3. Use the **Format tab** on the toolbar to format your worksheet. Be creative. Try a new font, size, colour, alignment etc.
4. Save your worksheet. You can still save it in the file **Compute Math Lab1** because you are using a new Sheet
5. Print your worksheet .To print, select **File** from the toolbar, **Click Print**. On the **Print menu** that comes up, **Click OK**. (Make sure that you select the appropriate printer for your computer if you are printing up in classroom) Check with instructor if you are not sure where printer is !!!!
6. Show your printed out spreadsheet to your teacher. Discuss any questions you might have with your teacher.

Homework Assignment:

1. If you have saved **Compute Math Lab 1** on a 3 ½ Floppy disk, then., open **Excel** and then open your **File**.
2. On your Excel Worksheet, **Click Sheet 3 Tab** at the bottom of the worksheet. You will go to a new clean worksheet.
3. Enter the following set of data on your new worksheet.

Week	Hours of Work	Take Home Pay
1	17	\$ 187
2	29	\$ 319
3	30	\$ 330
4	19	\$ 209
5	23	\$ 253
6	18	\$ 198
7	20	\$ 220
8	14	\$ 154
9	10	\$ 110
10	25	\$ 275

4. Use the **Format tab** on the toolbar to format your worksheet. Format this worksheet differently than the one you did in **Practice Assignment 1**.
5. Save your worksheet. You can still use the file name: **Computer Math Lab 1** if you have used Sheet 3.
6. Print your worksheet Show your printed out spreadsheet to your teacher. Discuss any questions or problems on the assignment with your teacher.