

Excel II Office 2003



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Goal

The purpose of this class is to familiarize the user with the advanced features of Microsoft Excel.

Objectives

By the end of this class, you will be able to:

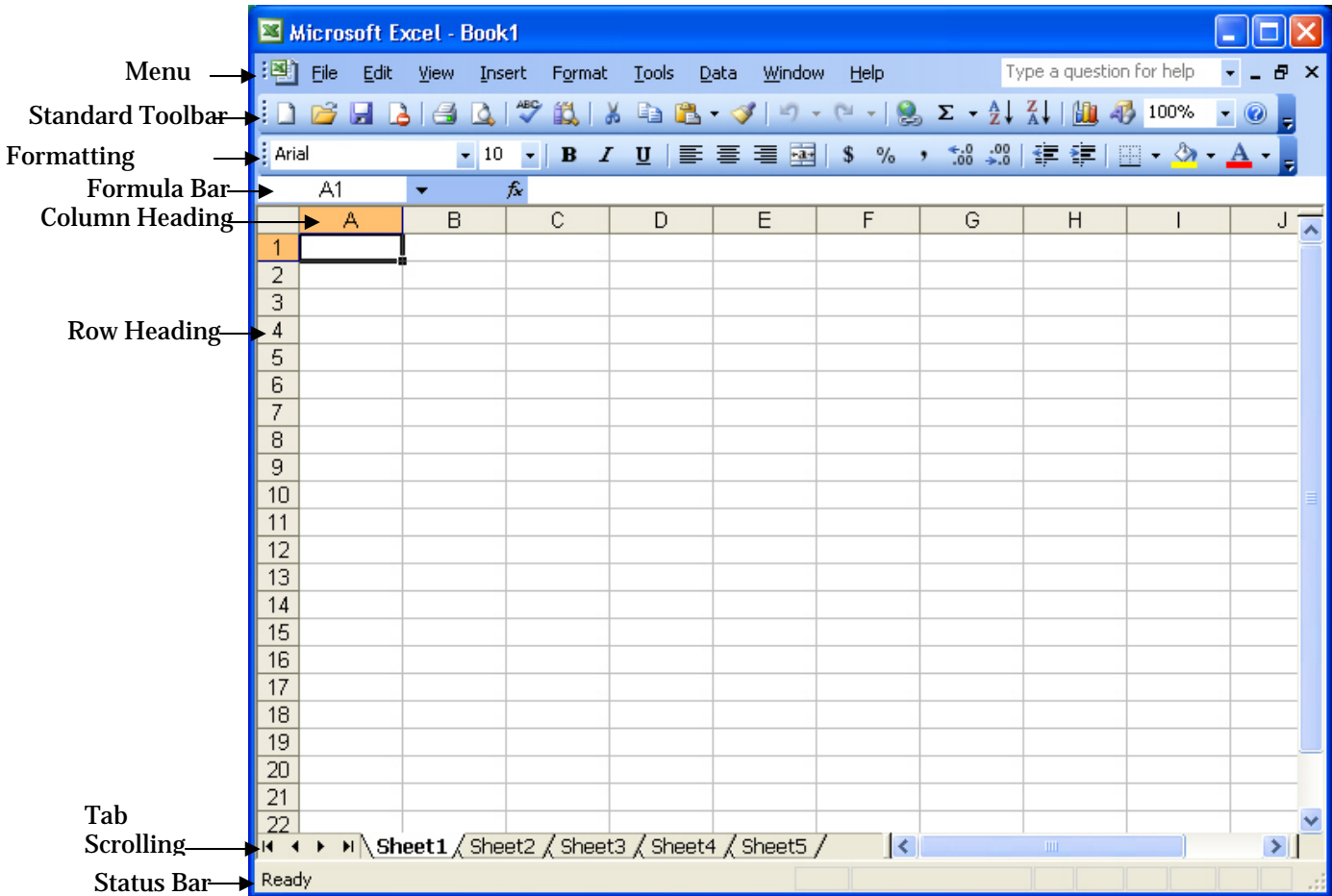
- Create, rename, and move worksheets
- Insert functions
- Use paste special
- Use split panes and freeze panes
- Customize your Excel worksheet
- Change the page layout for your worksheet
- Create and header and footer
- Create a chart
- Sort a database
- Split a single column into two columns
- Filter a database

Revised: December 2008

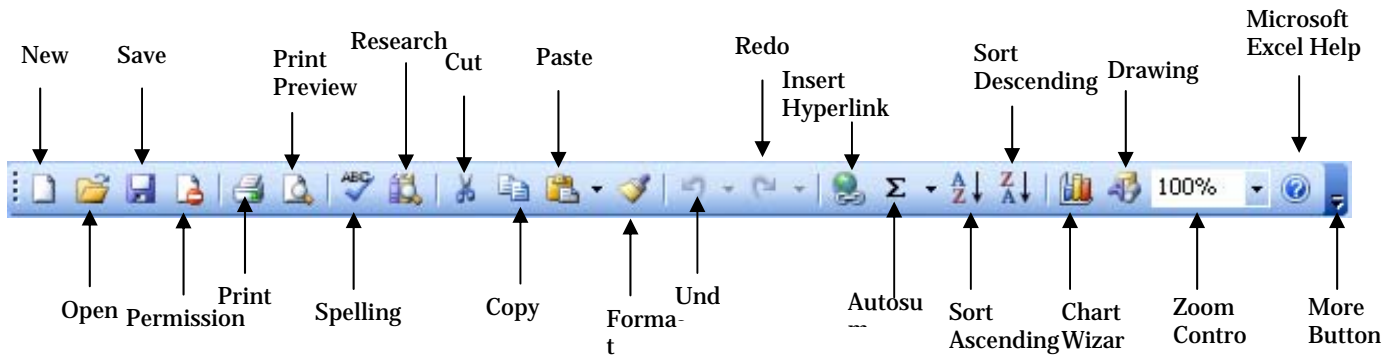
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Before we cover new material, here is a brief review of the Excel screen and Toolbars.

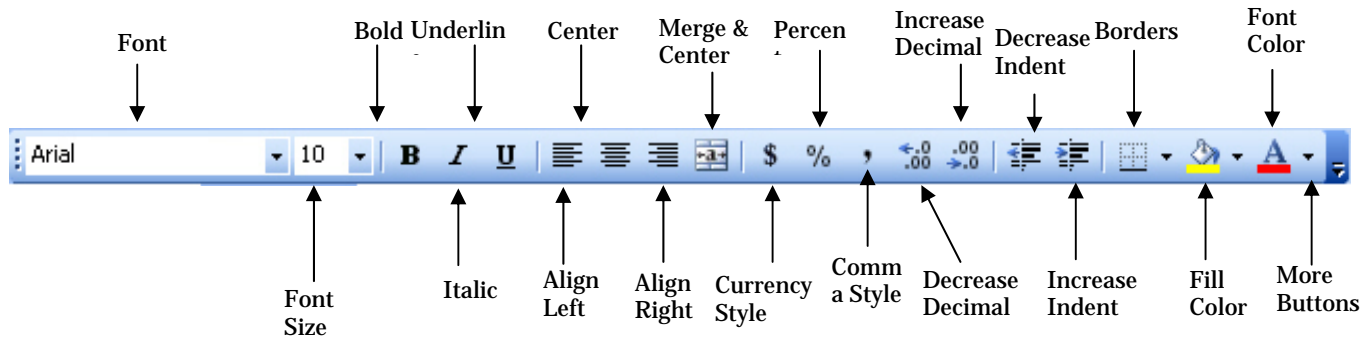
The Excel Screen



Standard Toolbar



Formatting Toolbar

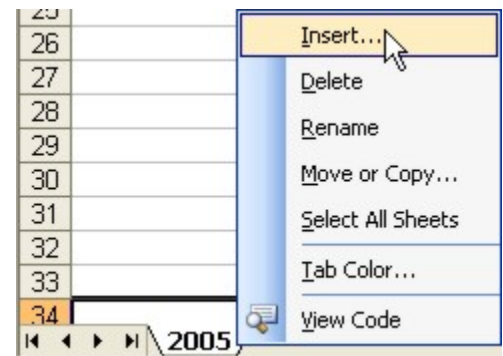


Creating and Renaming New Worksheets

Excel allows you to add additional worksheets to your workbook as well as move, rename, and delete worksheets.

To Create a New Worksheet

1. Right click on the open tab (**2006**).
2. Choose **Insert**.
3. Click **OK** to select **Worksheet**.



To Rename a Worksheet

1. A worksheet can be renamed by right clicking on the new sheet tab (**Sheet 1**) and selecting **Rename**.
2. Type the new name and press **Enter**.

To Move a Worksheet

1. The new worksheet can be moved by clicking and dragging on the tab. The new location will be designated by a small arrow.



To Delete a Worksheet

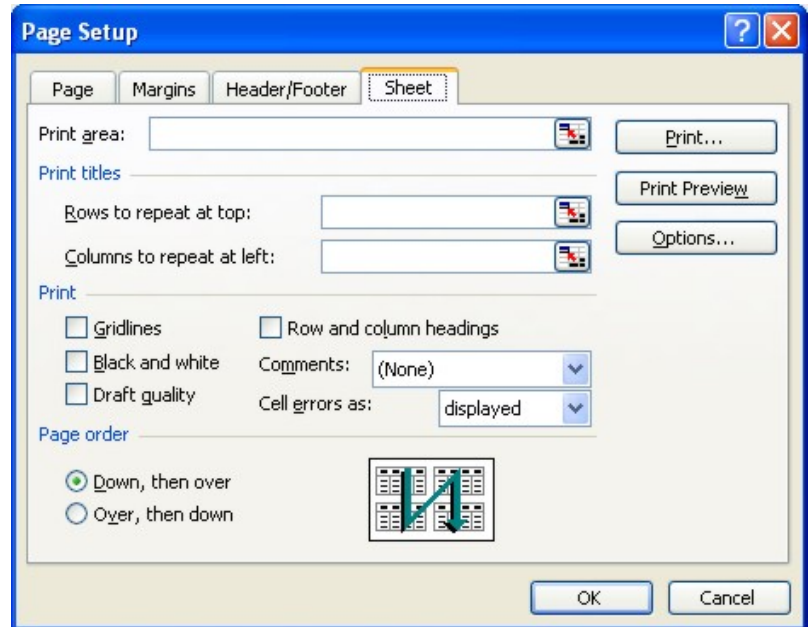
1. **Right click** on the tab for the offending worksheet.
2. From the menu choose **Delete**.

Page Setup

Page setup allows you to change the margins and orientation of your document, change the display of gridlines, and set whether titles should be displayed on every printed page.

To Change Printing Options

1. From the menu choose **File**, and then **Page Setup**.
2. Click on the **Sheet** tab.
3. To add gridlines to a printed document, in the **Print** section, select **Gridlines**.
4. To have the same row(s) or column(s) repeat on every page, in the **Print titles** section, select **Rows to repeat at top** or **Columns to repeat at left** and then select the desired rows.
5. Click **OK**.

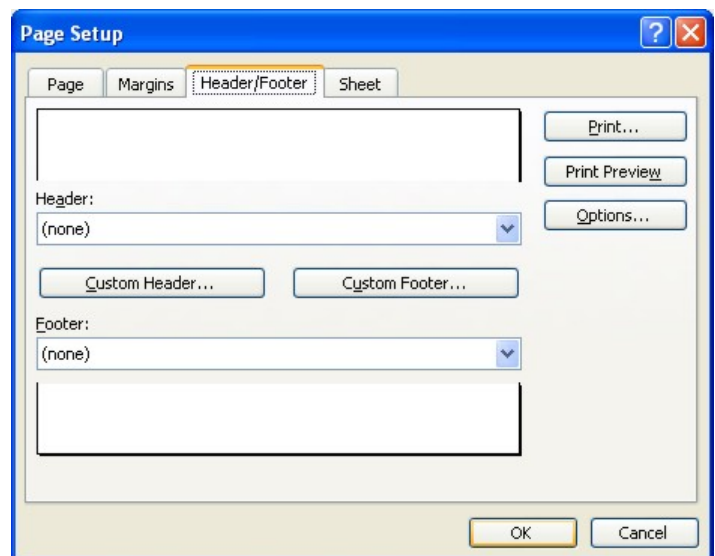


Header and Footer

Headers and Footers appear at the top and/or bottom of every page in the workbook.

To Set a Header/Footer

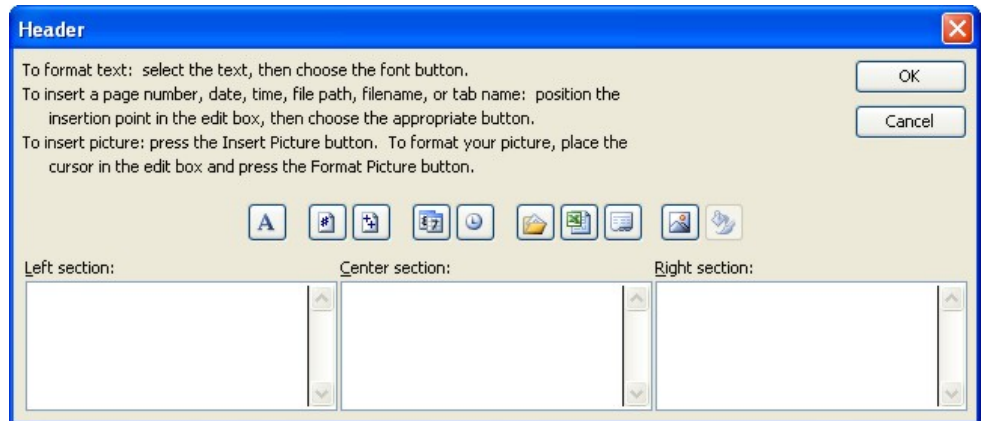
1. From the Menu choose **File** and then **Page Setup**.
2. Click on the **Header/Footer** tab.
3. To add one of the default headers, click on the drop down box under **Header**, and select one of the options, such as **Page 1**.
4. Click **OK**.



To Create a Custom Header/Footer

1. To create custom header or footer, click on the **Custom Header** or **Custom Footer** button.

2. Select the appropriate icon to add to the header or footer.
3. Click **OK** when finished.

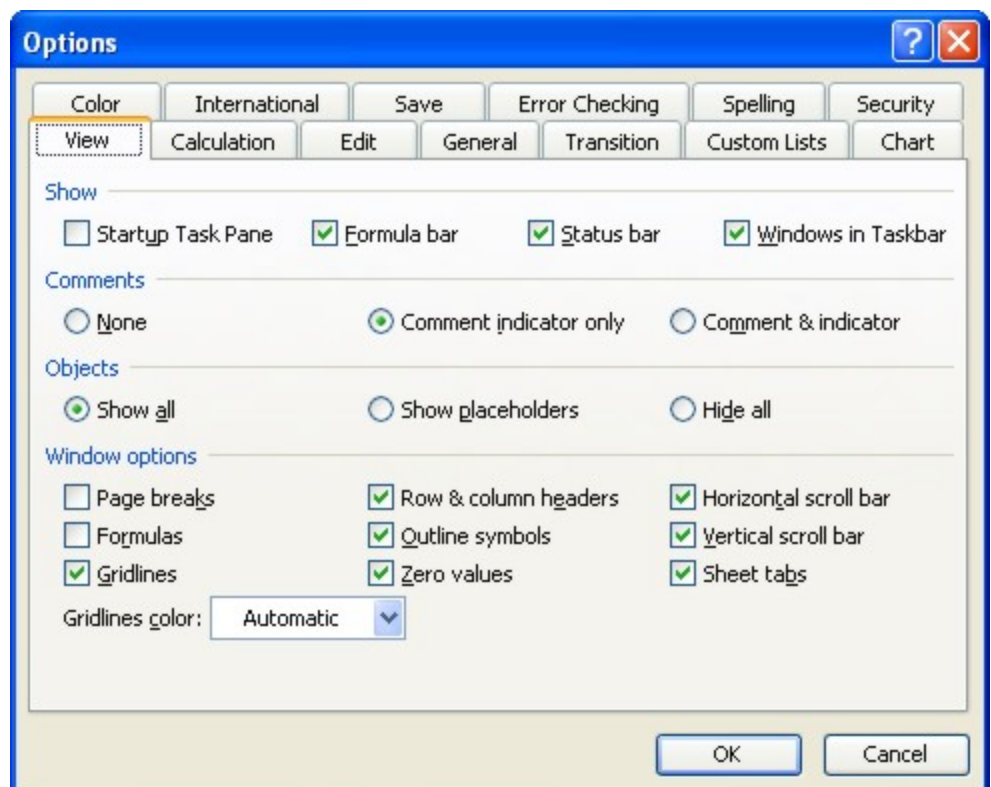


Options

The options dialog box allows you to change how things look in Excel.

To Change Program Options

1. From the menu select **Tools** and then **Options**.
2. To remove visible gridlines from a worksheet, click on the **View** tab, and in the **Windows options** section, remove the checkmark from **Gridlines**.
3. To change the default number of worksheets in a workbook, select the **General** tab and beside **Sheets in new workbook** select the desired number of sheets.

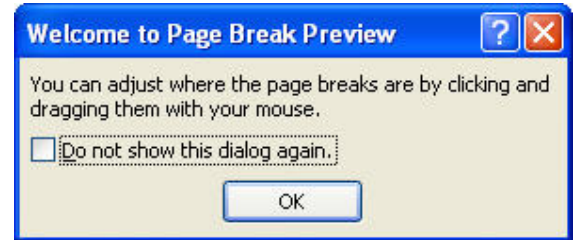


Page Break Preview

Sometimes even after you have changed the layout of a worksheet, you still cannot get all your columns or rows to fit onto a single printed sheet. Excel provides a page break preview to use when a worksheet must fit on one page.

To Use Page Break Preview

1. From the menu choose **View** and the **Page Break Preview**.
2. A dialog box appears asking telling how to use Page Break Preview. Click **OK**.



3. The worksheet changes to hide empty cells. Page breaks are designated with a thick, blue, vertical, dashed line.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1		Jan	Feb	Mar	Apr	Mag	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2	Mortgag	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	
3	Car	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	\$220.00	
4	Cable	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	
5	Phone	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	
6	Cell Phoi	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	\$78.00	
7	Gas	\$142.00	\$152.00	\$75.00	\$68.00	\$42.00	\$37.00	\$35.00	\$36.00	\$49.00	\$85.00	\$114.00	\$127.00	
8	Electric	\$65.00	\$60.00	\$53.00	\$58.00	\$70.00	\$114.00	\$158.00	\$162.00	\$109.00	\$53.00	\$47.00	\$75.00	
9	Water	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	
10	Garbage	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	
11	Food	\$275.00	\$215.00	\$218.00	\$221.00	\$248.00	\$251.00	\$327.00	\$195.00	\$217.00	\$219.00	\$235.00	\$350.00	
12	Gasoline	\$55.00	\$38.00	\$63.00	\$42.00	\$41.00	\$74.00	\$158.00	\$42.00	\$58.00	\$42.00	\$35.00	\$63.00	
13	Entertain	\$50.00	\$45.00	\$65.00	\$40.00	\$45.00	\$65.00	\$580.00	\$75.00	\$50.00	\$40.00	\$35.00	\$248.00	
14	Totals	#####	\$1,512.00	\$1,476.00	\$1,427.00	\$1,448.00	\$1,543.00	\$2,260.00	\$1,512.00	\$1,485.00	\$1,441.00	\$1,468.00	\$1,865.00	
15														
16	Monthly Average													
17														
18														
19														

4. When you place your cursor over the blue dotted page break line, the cursor changes to a two headed arrow.
5. Click and drag to move the page break.
6. The resulting document is reduced to allow the selected text and data to fit onto the page. Be aware that that reducing the document may make it difficult to read.

	J	K	L	M
ep	Oct	Nov		
0.00	\$600.00	\$600.00	\$600.00	\$600.00
0.00	\$220.00	\$220.00	\$220.00	\$220.00
5.00	\$65.00	\$65.00	\$65.00	\$65.00
14.00	\$14.00	\$14.00	\$14.00	\$14.00
78.00	\$78.00	\$78.00	\$78.00	\$78.00
9.00	\$85.00	\$114.00	\$114.00	\$114.00
19.00	\$53.00	\$47.00	\$47.00	\$47.00
15.00	\$15.00	\$15.00	\$15.00	\$15.00
10.00	\$10.00	\$10.00	\$10.00	\$10.00
17.00	\$219.00	\$235.00	\$235.00	\$235.00
8.00	\$42.00	\$35.00	\$35.00	\$35.00
10.00	\$40.00	\$35.00	\$35.00	\$35.00
35.00	\$1,441.00	\$1,468.00	\$1,468.00	\$1,865.00

Inserting Functions

A formula is an equation that performs an operation on selected data, such as adding a column of cells. A formula always begins with an equal sign (=), a plus sign (+), or a minus sign (-).

A function is a formula that has been built into Excel. Excel organizes the different functions into categories to help you find the desired function. It also provides a search dialog that allows you to search for a specific function.

Excel displays the most recently used functions when the Insert function dialog box opens.

There are two buttons available in the Function Arguments dialog box that will minimize that dialog box to help you select your range and then return to the Function Arguments dialog box.

Range Selection Button

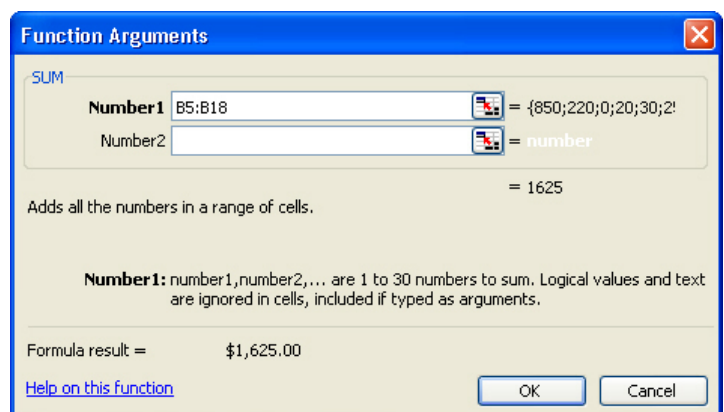
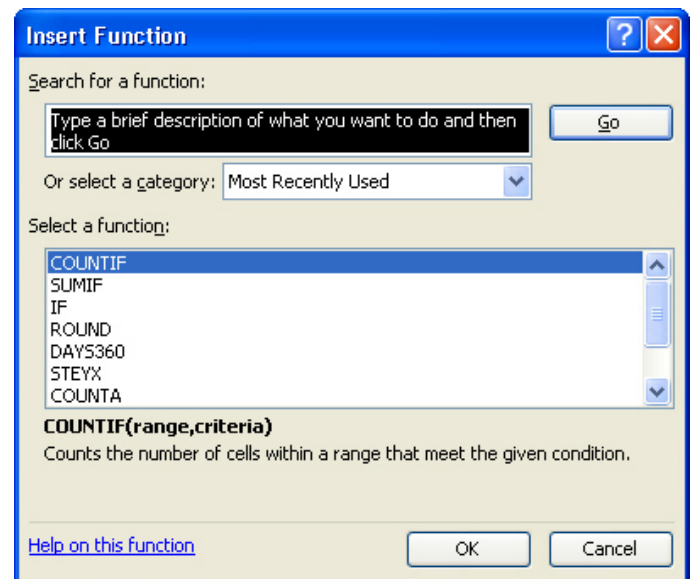


Range Return Button



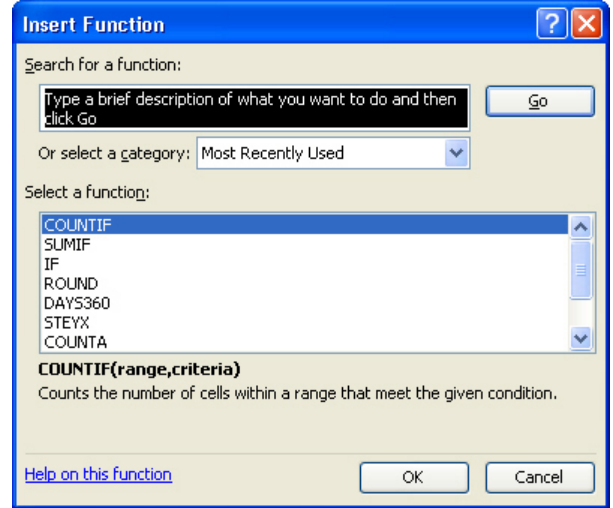
To Insert a Function in a Worksheet

1. Select the cell where the result will appear.
2. From the menu choose **Insert**, and then **Function**.
--OR--
Click the **Insert Function** tool on the **Formula Toolbar**. The **Insert Function** dialog box opens.
3. Beside **Or select a category**, click the **down arrow** and select the group that contains the desired function. If the category is unknown, select **All** to display all the available functions.
4. Under **Select a function**, select the function to be used. Use the scroll bar to see the entire list.
5. Select the desired function.
6. Click **OK**. The Function Arguments dialog box opens.
7. Enter the range to be used in the formula using the range selection icon, or by typing the range into the dialog box.
8. Click **OK** to insert the function in the worksheet.



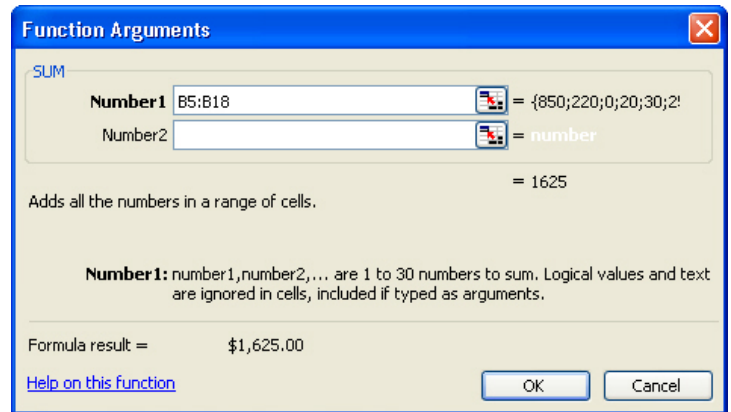
Exercise

1. Open the spreadsheet **Budget.xls** located on the **Desktop** in the **Excel2** folder.
2. Select cell beside **Total** for the month of January, cell **B14**.
3. From the Menu choose **Insert**, and then **Function**.
The Insert Function dialog box opens.
4. If available from the list, select **SUM**. If sum is not available, find it using the **Search for a function** dialog box, type **sum**.
5. Click **OK**.



6. The **Function Arguments** dialog box opens.
7. Enter the range to be summed in the **Number 1** text box.
8. Click **OK**. The range of numbers is added and the results display in cell **B14**.

--OR--



9. Click on the range selection button and use the cursor to highlight the range **B4:B15**.
10. Click the **Range Return** button to return to the dialog box.
11. Click **OK**. The range of numbers is added and the results display in cell B16.

--OR--

12. If needed, move the Function Arguments dialog box so that the **Total** row is completely visible.
13. Click and drag to select the desired range, **B2:B13**.
14. Click **OK**. The range of numbers is added and the results display in cell **B14**.

15. The sum function can be copied and pasted into other cells using either copy and paste, or using the **Fill Handle**. If necessary widen the cells to display the totals.

11	Sewage	\$10.00	\$10.00	\$10.00	\$10.00
12	Garbage	\$10.00	\$10.00	\$10.00	\$10.00
13	Food	\$275.00	\$295.00	\$320.00	\$315.00
14	Gasoline	\$55.00	\$38.00	\$63.00	\$63.00
15	Entertainment	\$50.00	\$45.00	\$65.00	\$40.00
16	Totals	\$1,690.00	\$1,683.00	\$1,746.00	\$1,716.00

Exercise

1. Select the cell next to **Monthly Average**, cell **C16**.
2. Click on the **Insert** from the Menu and choose **Function**. The Insert Function dialog box opens.
3. If available from the list, select **AVERAGE**. If average is not available, find it using the **Search for a function** dialog box, type **average**.
4. Click **OK**.
5. In the Function Arguments dialog box, select the monthly totals, cells **B14:M14**.
6. Click **OK**.
7. The monthly average is displayed in cell **C16**.

15	Entertainment	\$50.00	\$45.00
16	Totals	\$1,690.00	\$1,683.00
17			
18	Monthly Average		\$1,734.83

Paste Special

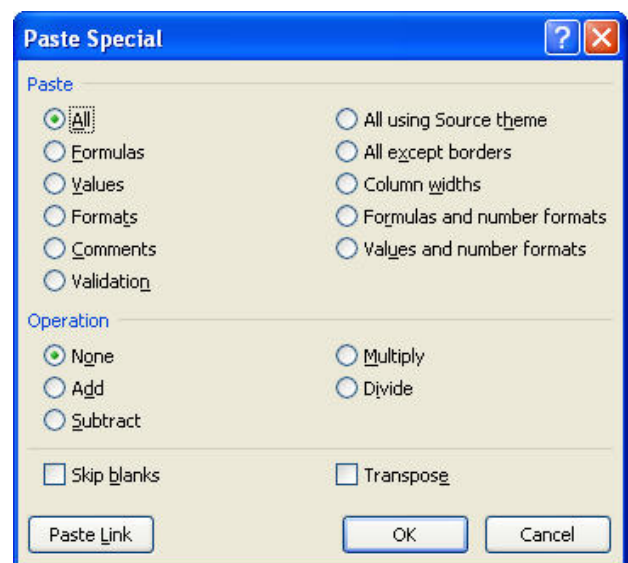
In Excel, paste special allows you to control exactly what information is being pasted. For example, by default, Excel pastes formulas and not values, so if you paste your totals into a blank worksheet, the cells will display zeroes or errors because the blank sheet has no values to add. Paste special allows you to paste values from one location to another.

To Use Paste Special.

1. Highlight and copy the source cell(s).
2. Move to the destination worksheet or workbook.
3. Place the cursor in the first destination cell.
4. From the menu choose **Edit** and then **Paste Special**.
--OR--
Right click in the destination cell and choose **Paste Special**.
5. In the Paste Special dialog box, select the desired options.
6. Click **OK**.

Paste Special Options

- **All** pastes copied text normally.
- **Formulas** pastes only the formulas.
- **Values** pastes only the values.
- **Formats** pastes only the formatting.
- **Comments** pastes only comments.
- **Validation** pastes only the cell validation.
- **All except borders** pastes normally, only without cell borders.
- **Column widths** pastes only the column widths.
- **Formula and number formats** pastes the formulas and the cell formatting.
- **Values and number formats** pastes the values and the cell formatting.
- **Operation** takes the value of the copied cells, and performs the designated operation with the values in the target cells.
- **Skip blanks** removes blank cells.
- **Transpose** changes the layout from horizontal to vertical or vice versa.



Paste Link

Paste link is used when you would like data from one worksheet to update second worksheet. This command links two worksheets together, so that when data in the first worksheet is updated, those changes are reflected in the second worksheet.

When a linked document is opened, Excel prompts you to update the links from the source data. This allows Excel to go to the source worksheet and look for any changes to the data.

To Use Paste Link

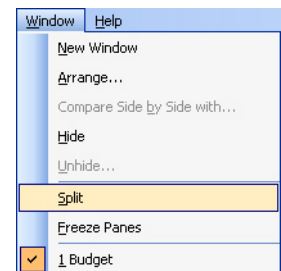
1. Highlight and copy the source cell(s).
2. Move to the destination worksheet or workbook.
3. Place the cursor in the destination cell.
4. From the menu choose **Edit** and then **Paste Special**.
--OR--
Right click in the destination cell and choose **Paste Special**.
5. In the Paste Special dialog box, click **Paste Link**.
6. The copied cells are pasted into the destination cell. Any changes made to the source will automatically be reflected.

Split Panes

The Split Panes command allows you to split your worksheet into multiple panes, so that you can see different parts of your worksheet at once. Excel allows you to split your worksheet into two or four panes. A split will always occur to the left of and above the selected cell.

To Split a Window into Panes

1. Place the cursor where you would like the panes to be split. Remember that a split occurs above and to the right of the selected cell.
2. Choose **Window** from the Menu, and choose **Split**.



1. The window is split into panes. Use the vertical and horizontal scroll bars to move through the data.
2. To adjust the size of the division of the panes, place the cursor over the split bar. The cursor changes to a four-headed arrow; drag the bar to the desired location.

	A	B	C	D
1		Monthly Expenses		
2				
3		Jan	Feb	Mar
4	Loans			
5	Mortgage	\$850.00	\$850.00	\$850.00
6	Car	\$220.00	\$220.00	\$220.00

To Remove the Split

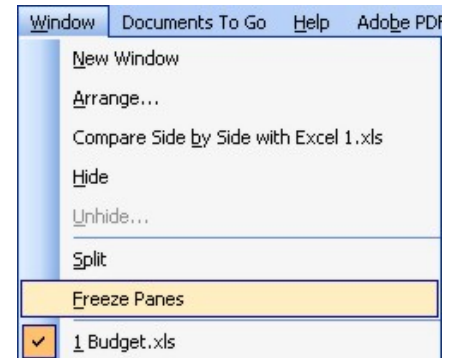
1. From the Menu, choose **Window** and click **Remove Split**.
--OR--
1. Double click in any part of the split.

Freeze Panes

Freeze panes allows you to keep the top row(s) or left column(s) frozen in place while the rest of the worksheet scrolls. This allows you to keep your headings at the top of the page, even if you have multiple screens worth of data.

To Freeze Panes

1. Place the cursor below or to the right of where you would like the freeze to occur.
2. From the menu choose **Window** and then **Freeze Panes**.



3. The selected row(s) or column(s) are frozen.

	A	J	K	L	M
3		Sep	Oct	Nov	Dec
4	Mortgage	\$850.00	\$850.00	\$850.00	\$850.00
5	Car	\$220.00	\$220.00	\$220.00	\$220.00
6	Cable	\$65.00	\$65.00	\$65.00	\$65.00
7	Phone	\$32.00	\$32.00	\$32.00	\$32.00
8	Gas	\$43.00	\$43.00	\$43.00	\$43.00
9	Electric	\$84.00	\$53.00	\$47.00	\$68.00
10	Water	\$15.00	\$15.00	\$15.00	\$15.00
11	Sewage	\$10.00	\$10.00	\$10.00	\$10.00
12	Garbage	\$10.00	\$10.00	\$10.00	\$10.00
13	Food	\$315.00	\$300.00	\$295.00	\$350.00
14	Gasoline	\$63.00	\$63.00	\$63.00	\$63.00
15	Entertainment	\$50.00	\$40.00	\$35.00	\$95.00
16	Totals	\$1,757.00	\$1,701.00	\$1,685.00	\$1,821.00

To Remove a Freeze

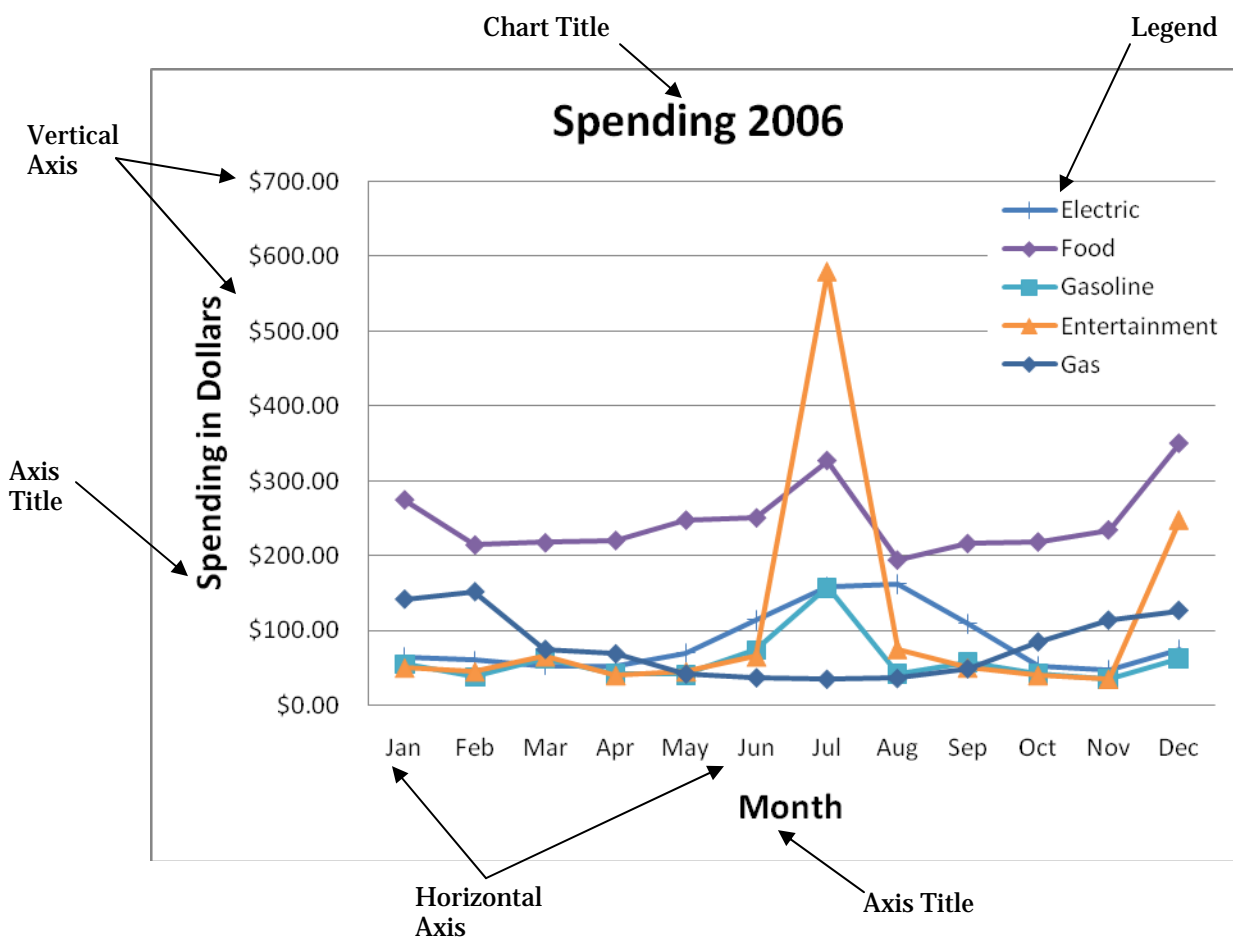
1. From the menu choose **Windows** and then **Unfreeze Panes**.

Charts

Charts are graphical representations of data. Excel has many different chart formats from which you can choose. In Excel, charts are displayed in one of two ways: embedded in the current worksheet, or in a separate sheet in the workbook.

The easiest way to create a chart is to use the Chart Wizard. The Chart Wizard provides a series of screens where you supply information to create the chart, and then Excel displays the finished product.

Parts of a Chart



Creating Charts

There are several preset chart types available in Excel: Columns, Line, Pie, Bar, Area, and Scatter are the most commonly used chart. The type of chart that is best to use will depend entirely upon your data. For class we will create a pie chart and a column chart. Other chart types are created in the same manner as these two.

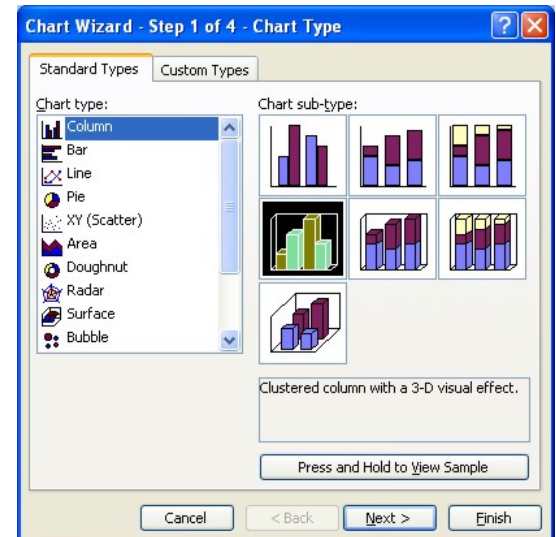
To Create a Bar Chart

1. Highlight the data for the chart. To select non-adjacent cells, hold down the control key while clicking and dragging to highlight the desired cells. For class, select **A1:M13**.
2. Click the **Chart Wizard** button on the Standard Toolbar.



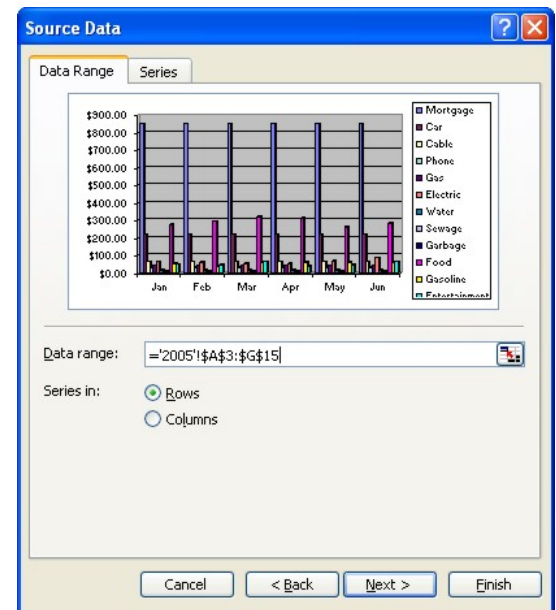
3. The Chart Wizard dialog box appears. Select a **Chart type**, and then a **Chart sub-type**. For class, select **Column** and then select a column chart sub-type.

4. Click **Next**.

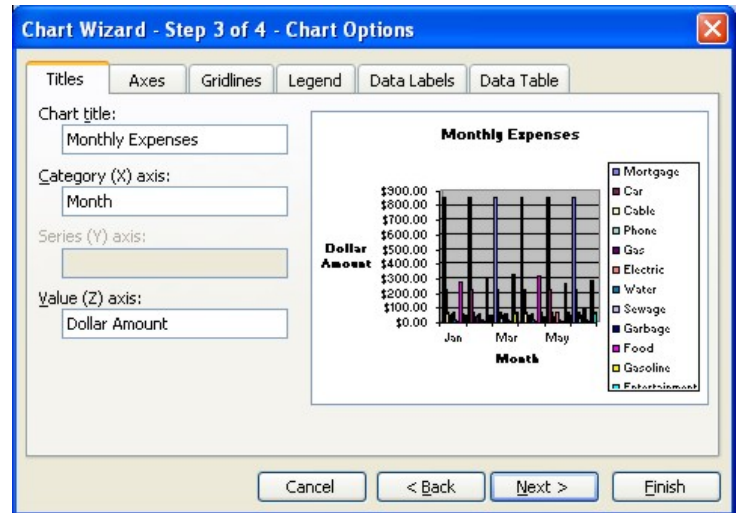


5. Decide whether to display the data in rows or columns.
6. If necessary, you can change the cells used to create the chart by clicking on the **Range Selection Button** icon beside **Data range** and selecting a new range of cells to be used.

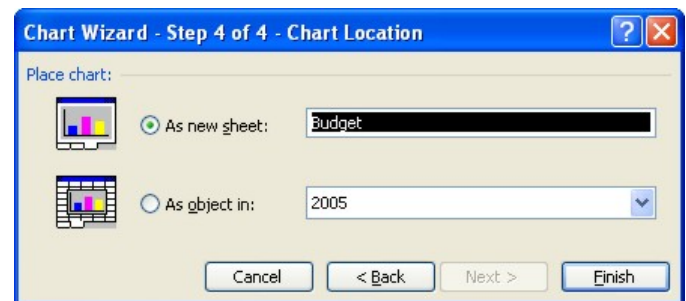
7. Click **Next**.



8. Under the title tab, add chart and axis titles as desired. For class, under **Chart title**, type **Monthly Expenses**. Under **Category (X) axis** type **Month**. Under **Value (Z) axis** type **Dollar Amount**. Other formatting options are available under the other tabs.
9. Click **Next**.



10. Select where the chart will appear. For class, choose **As new sheet**. For class, name the chart **Column Budget**. This name will appear on the worksheet tab.
11. Click **Finish**. The chart is inserted as a separate sheet.

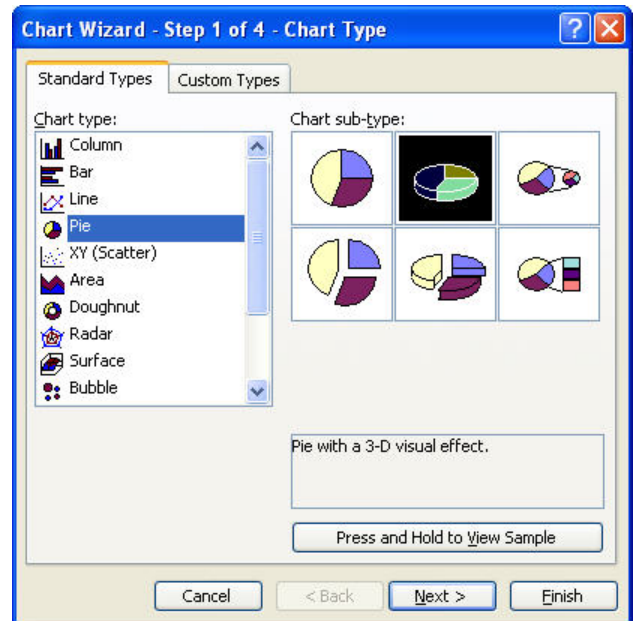


To Create a Pie Chart

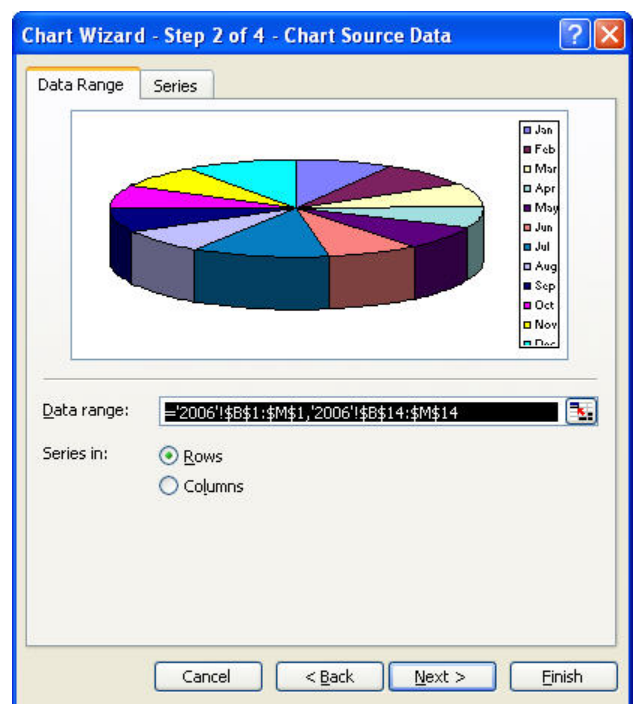
1. Highlight the data for the chart. To select *non-adjacent* cells, hold down the control key while clicking and dragging to highlight the desired cells. For class, highlight cells **B1:M1** and cells **B14:M14**.
2. Click the **Chart Wizard** button on the Standard Toolbar.



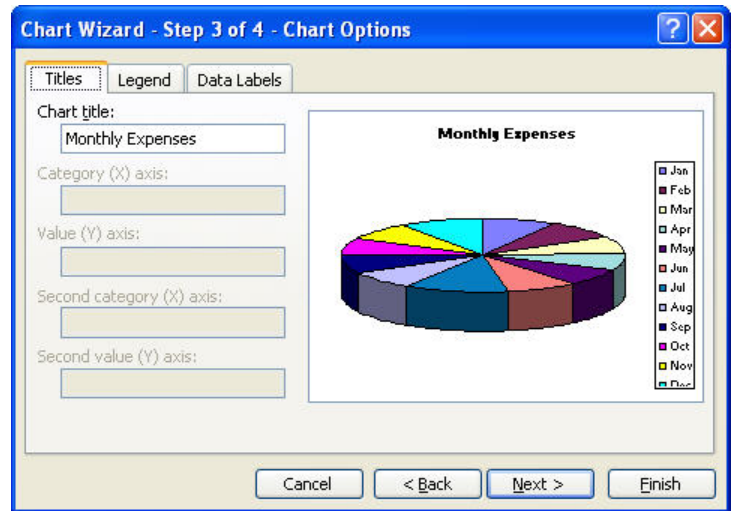
3. The Chart Wizard dialog box appears. Select a **Chart type**, and then a **Chart sub-type**. For class, select **Pie** and then select a chart sub-type.
4. Click **Next**.



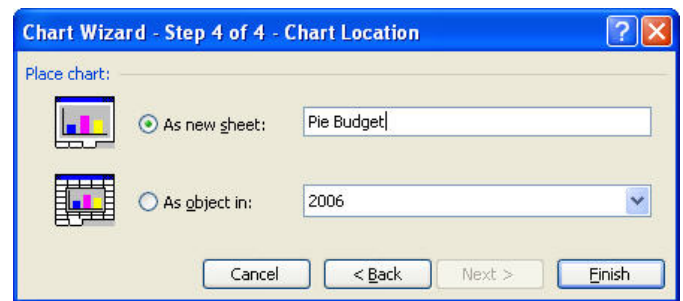
5. We do not need to make any changes as to whether the data is presented in rows or columns. Click **Next**.



6. Under the title tab, add a chart titles as desired. For class, under **Chart title**, type **Monthly Expenses**. Other formatting options are available under the other tabs.
7. Click **Next**.



8. Select where the chart will appear. For class, choose **As new sheet**. For class, name the chart **Pie Budget**. This name will appear on the worksheet tab.
9. Click **Finish**. The chart is inserted as a separate sheet.

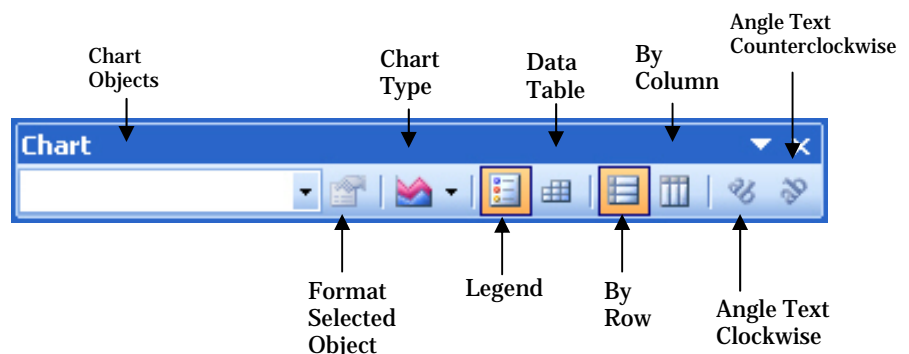
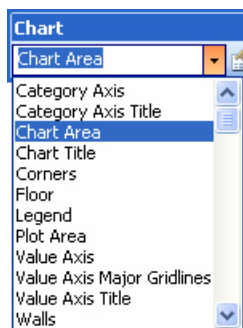


Formatting Charts

In charts, you can change the text formatting, such as font, alignment, and orientation. You can make these changes from the Formatting Toolbar or from the menu. In Excel charts, most changes can be made by right clicking on the desired object and choosing **Format Chart (object)**.

Chart Toolbar

The Chart Toolbar can be used to format specific portions of a chart, alter the chart type, add or remove a legend, view the data table, change the way the chart is plotted on the chart by row or column, and angle text.



To Format a the Chart Title

1. Click on the chart title to make it active.
2. Highlight the text to be formatted.
3. Use the Formatting Toolbar to modify the font.

--OR--

From the menu choose **Format** and then **Selected Chart Title**.

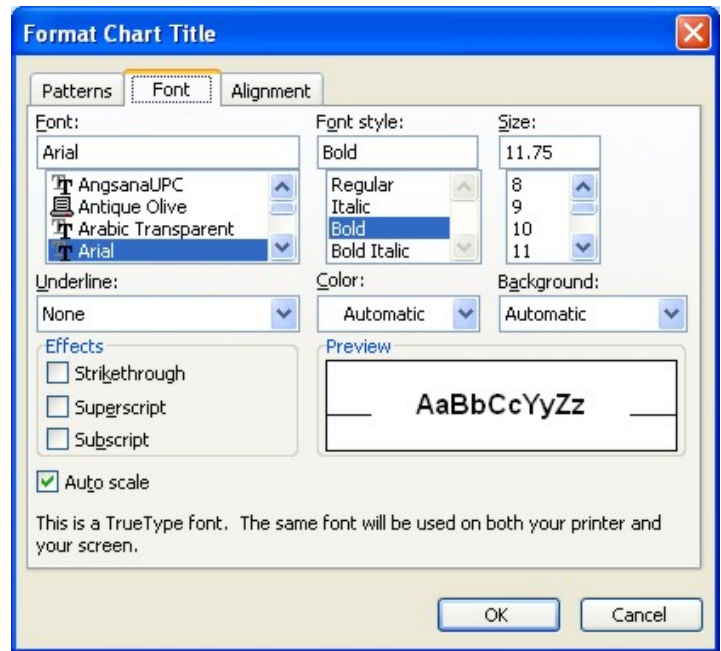
--OR--

Right click on the title and choose **Format Chart Title**.

--OR--

Double click on the chart border.

4. Click on the **Font** tab.
5. Make any desired font changes.
6. Click **OK**.

**To Format Chart Axes**

1. Click on the axis, then from the menu, choose **Format** and then **Selected Axis**.

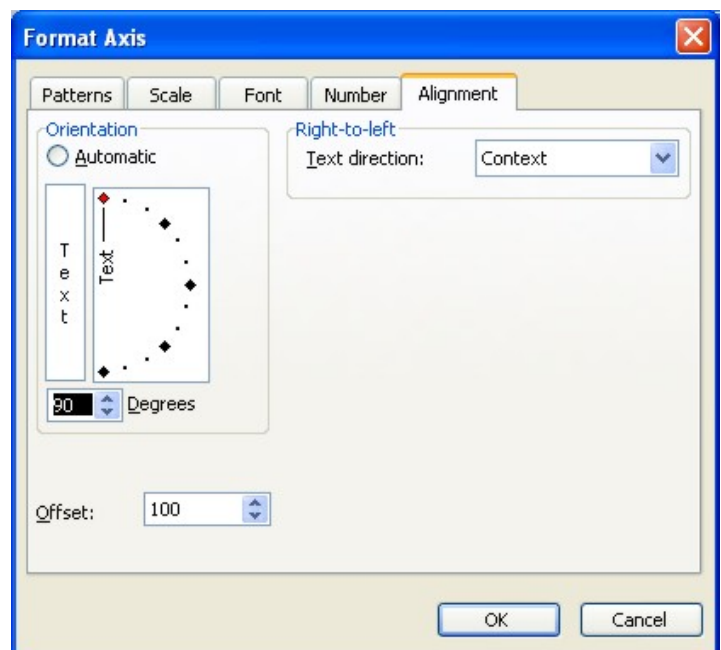
--OR--

Right click on an axis and choose **Format Axis**.

--OR--

Double click on the axis to be formatted. The **Format Axis** dialog box opens.

2. Click on the **Font** tab and make any desired font changes.
3. Click on the **Alignment** tab and make any desired alignment changes.
4. Click **OK**.



Legends

The chart legend explains the chart. It shows what the various lines, bars, or pie pieces represent. If you have not labeled the various parts of your chart with data labels, it is a good idea to have a chart legend.

To Add a Chart Legend

Click the **Legend** Tool on the **Chart** Toolbar.

--OR--

Right click on the legend and choose Format Legend.

--OR--

Click **Chart** from the Menu and choose **Chart Options**. Select the **Legend** tab and choose the **Show legend** option.

To Change the Legend Placement

1. Click and drag the legend to a new position.

--OR--

1. Select the legend.

2. Click the **Format Legend** icon on the chart toolbar.

--OR--

1. Right click on the legend and choose Format Legend.

--OR--

1. Double click on the legend. The Format Legend dialog box opens.

--OR--

1. Click **Chart** from the Menu and choose **Chart Options**. Select the **Legend** tab and choose the **Show legend** option.

2. Click on the **Placement** tab.

3. Choose **Bottom** for the placement.

4. Click **OK**. The legend is moved beneath the plot area.

To Delete a Chart Legend

1. Click the **Legend** icon on the chart toolbar.

--OR--

Click on the legend to select it, and press the **Delete** key.

Databases

A database is a tool for organizing, managing, and retrieving information. A database allows you to search for specific data, to sort your data, to extract specific records, and to perform calculations. Excel is a good tool for creating and maintaining simple databases, such as an employee address book.

A database is comprised of records, field names, and calculated fields.

- **Record** A single row in a database. Each record contains related information, such as all the information about a single patient.
- **Field** Each column in a database is a field. These fields contain information on a single subject, such as last name.
- **Field Name** A field name identifies the data in that field. The first row of a database must contain field names, and each field name must be unique.
- **Computed Field** A computed field is a field containing a formula or function.
- **Database Range** A database range is a group of cells (range) in the database.

The diagram shows an Excel spreadsheet with four columns and four rows. The columns are labeled A, B, and C. The rows are numbered 1, 2, 3, and 4. The first row (row 1) contains field names: 'Last Name' in column A, 'First Name' in column B, and 'Amount Due' in column C. The second row (row 2) contains data: 'Gates' in column A, 'Bill' in column B, and '\$1,000,000' in column C. The third row (row 3) contains data: 'Smith' in column A, 'Jim' in column B, and '5.72' in column C. The fourth row (row 4) contains a calculated field: 'Total' in column A, and '=SUM(C2:C3)' in column C. Labels with arrows point to these elements: 'Field' points to column A, 'Field Name' points to 'Last Name', 'Record' points to row 2, and 'Calculated Field' points to the formula in row 4, column C.

	A	B	C
1	Last Name	First Name	Amount Due
2	Gates	Bill	\$1,000,000
3	Smith	Jim	5.72
4	Total		=SUM(C2:C3)

Sorting

Sorting allows you to organize your data in a sensible manner, such as placing the records into alphabetical order by last name. A sort can be performed on letters (alphabetical) or numbers (numeric). A sort can also be ascending or descending—A to Z or Z to A.

In a sort, the columns are identified by their field names. Excel 2003 allows you to sort by up to three columns. For example, in a database of patient records, you could sort the patients by doctor, then by last name, then by first name.

You can also use a sort to group similar items together. For example, you could sort by insurance company to group all the patients who have one insurance company together, so you could inform them of a change in policy.

When you perform a sort, you must make sure there are no blank records in the database, otherwise the data will not sort properly. You must also take care that no cells are selected when you begin your sort, otherwise part of your data may not be sorted, which could ruin your database.

To Sort a Database

1. Open the file **Database**, located on the **Desktop** in **Excel2** folder.
2. From the menu choose **Data** and then **Sort**. The entire database range is automatically selected.
3. In the My data range has section, select Header row.
4. In the first **Sort by** box, choose **Patient**.
5. Select **Descending** to sort the names in the reverse order.
6. Click **OK**.

**To Undo a Sort**

1. Click on **Edit** from the menu, and then choose **Undo Sort**.

To Sort a Database by Multiple Fields

1. From the menu choose **Data** and then **Sort**.
2. In the **Sort by** box, choose **Date**.
3. Select **Descending** to sort the dates into reverse chronological order.
4. In the **Then by** box, choose **Patient**.
5. Select **Ascending** to sort the names in reverse alphabetical order.
6. Click **OK**.



Filtering

Excel allows you to filter your database to pull out records that meet specific criteria. For instance, you may want to contact all female patients who will be turning 40, so they can schedule a mammogram. Or, you may want to contact all patients who see a specific doctor, to let them know she is retiring and that they will need to select a new primary care physician.

Filtering Criteria

Excel allows you to set criteria for your filter. A criteria is a set of conditions that must be met. In Excel, criteria allow you to find specific records within the database, based upon conditions that you specify.

There are two types of criteria: computed criteria and comparison criteria. Comparison criteria allow you to find records that match certain limits. The criteria names are the same as your database field names. You can use operators to place limits on your criteria.

Comparison Operators

Operator	Meaning
=	Equal to
>	Greater than
<	Less Than
>=	Greater than or equal to
<=	Less than or equal to
<>	Not equal to

For example, we want to find all patients who are older than the Baby Boomers. Our criteria for this would be <=01/01/1946. This will bring up all patients who were born before 1946.

Computed criteria are used to find records based on a formula. For instance, if your database has the fields **Total Charges** and **Paid by Insurance**, and you want to find all patients who owe more than \$1000 so you can offer them a special payment plan, your criteria would be:

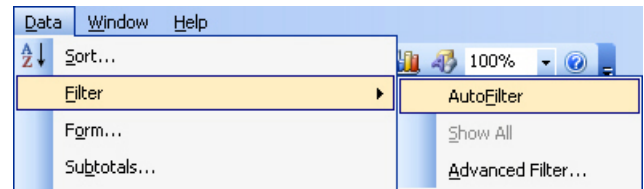
=Total Charges-Paid by Insurance>1000

AutoFilter

The AutoFilter allows you to select records to be displayed. When you turn on the AutoFilter, arrows appear in the field name cells. Selecting one of those arrows provides a list of every option in that field, plus the options **All**, **Top 10**, and **Custom**. Selecting an option will bring up all records meeting that criteria.

To Filter a Database Using the AutoFilter

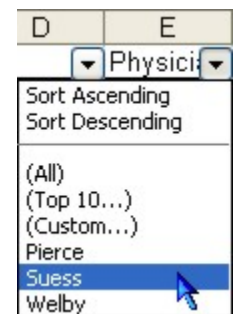
1. Place your cursor in any cell in the database.
2. From the menu, choose **Data**, then **Filter**, and then **AutoFilter**.



3. A drop down arrow appears at the top of each column.

	A	B	C	D	E	F	G
1	Patient	Patient	Birth Da	Da	Physici	Ins. Co	Total Fe
2	Willig, Allonzo	B5111-612	4/27/1966	3/23/1995	Suess	Aetna	\$124.76

4. Click the down arrow in the **Physician** column and choose **Suess** as the criteria. This will filter out only the records where Dr Seuss is the physician.
5. To use this data, such as for a mail merge, select all the data (**Ctrl + A**) and copy the filtered data into a new worksheet or workbook.

**To Undo the Filter**

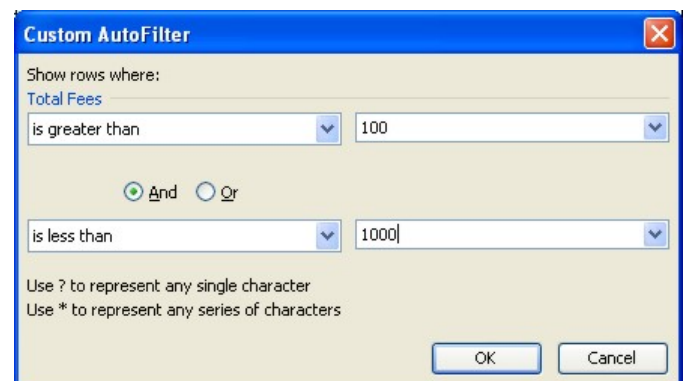
1. Click the down arrow in the column heading and choose **All**.
--OR--
From the menu, choose **Data**, then **Filter**, and then **Show All**.

Custom Filter

The Custom options allow you to filter for two or more criteria called a Range. (i.e., = \$50.00 but < \$100.00)

To Use the Custom Filter

1. Place the cursor in any cell in the database.
2. Click the down arrow in **Total Fees**.
3. Select the **Custom** option. The Custom AutoFilter dialog box opens.
4. In the first drop-down list, choose **is greater than**, then type **100** in the text box beside it.
5. Select the option button **And**.
6. In the bottom left-hand corner, there is another drop-down list box. Choose **is less than** from the list.
7. In the next text box, type **1000**.
8. Click **OK**.



9. Only the records specified in the range between \$50 and \$100 will appear on the screen.

	A	B	C	D	E	F	G
1	Patient	Patient ID	Birth Dat	Date	Physici	Ins. Co.	Total Fee
4	O'Reilly, Rudy	B2547-911	4/5/1980	3/18/2006	Suess	None	\$643.64
8	Kiss, Alex	H1223-286	12/5/1941	3/16/2006	Suess	Aetna	\$850.00
11	Schlueter, Kevin	H1223-289	8/1/1959	3/12/2006	Welby	None	\$543.39
17	Rosenquist, Kaye	H1223-295	12/5/1941	3/10/2006	Suess	Aetna	\$472.67
18	Jones, Tom	H1223-296	9/19/1942	3/11/2006	Welby	Prudential	\$897.34
21	Sotiropoulos, Sotiri	H1223-299	3/15/1945	3/13/2006	Suess	Aetna	\$850.00
22	Van Moorsel, Mick	H1223-300	3/15/1945	3/17/2006	Welby	Prudential	\$295.00
23	Kuzelicki, Alex	H1223-301	9/19/1942	3/13/2006	Suess	Prudential	\$220.00
26	Morris, Steve	H1223-304	7/24/1968	3/12/2006	Suess	Aetna	\$220.00
32	Dakanalis, Harry	H1223-310	11/1/1959	3/13/2006	Pierce	Prudential	\$275.00
34	Tuscan, Darko	H1223-312	7/24/1968	3/18/2006	Welby	Aetna	\$220.00
35	King, Nigel	H1223-313	8/1/1959	4/9/2006	Suess	Prudential	\$850.00
41	Stahelski, Chad	H1223-319	7/26/1968	3/25/2006	Pierce	National	\$295.00
45	Davies, Dar	H1223-323	12/5/1941	3/13/2006	Welby	None	\$850.00
59	McLean, Scott	O4122-123	8/1/1959	3/13/2006	Pierce	Prudential	\$295.00
60	Frantz, Micheal	O6100-284	9/27/1959	3/18/2006	Suess	F&M	\$535.84
61	Lindeman, Brian	O8675-309	8/19/1955	3/13/2006	Pierce	None	\$234.00
62							
63	Totals						\$34,950.04

To Turn Off the AutoFilter

1. From the menu choose **Data**, then **Filter**, and then **AutoFilter**.
2. All of the AutoFilter arrows are removed from the database.

Common Keyboard Commands

Ctrl + B	Bold
Ctrl + C	Copy
Ctrl + X	Cut
Ctrl + Home	Go to first cell in worksheet
Ctrl + End	Go to last cell in worksheet
Ctrl + I	Italic
Ctrl + N	New
Ctrl + O	Open
Ctrl + V	Paste
Ctrl + P	Print
Ctrl + Y	Redo
Ctrl + S	Save
Ctrl + Spacebar	Select entire column
Shift + Spacebar	Select entire row
Ctrl + U	Underline
Ctrl + Z	Undo

Summary

This class has covered the following topics:

- ◆ Review of the Excel screen, toolbars, and retrieving a saved spreadsheet
- ◆ Excel worksheets including; editing cell contents and cell series
- ◆ Inserting functions
- ◆ Paste special
- ◆ Splitting and freezing panes
- ◆ Excel charts including; creating and formatting a chart
- ◆ Excel databases including; parts of a database and sorting
- ◆ Filtering records using AutoFilter and Advanced Filter

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- NOTES -