

## Intermediate EXCEL 2003 - Rockaway Township Library Computer Class

Excel is a Microsoft Office software program for organizing and analyzing numbers and labels into spreadsheet and chart forms. (New to Excel? Go to the [www.rtlibrary.org](http://www.rtlibrary.org) website page "Computer Classes" and complete the "Intro to Excel" tutorial first)

### Topics covered in this Excel class

- 1) Quick review on how to enter data and formulas in a worksheet
- 2) Formatting rows and columns : insert, cut, copy, paste, delete
- 3) Sorting data
- 4) Autofill key and Error flags
- 5) Creating a Columns Chart with 1) F11 key vs. 2) 4-Step Chart wizard
- 6) Basic Pie and Bar Charts
- 7) Editing Chart properties
- 8) Hiding columns to focus chart comparison

-Let's Start by Opening EXCEL, Creating a New Spreadsheet by entering the values below

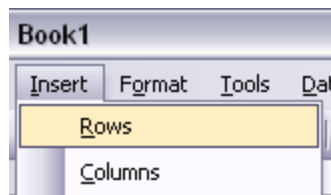
-Calculate Q1 Gas price by using AutoSum or writing a formula beginning with =

-Copy and Paste this formula for the other Q1 expense categories

-Calculate Total Expenses for each month and Q1

| 2007 Expenses |           |           |           |    |
|---------------|-----------|-----------|-----------|----|
| EXPENSES      | JAN       | FEB       | MAR       | Q1 |
| Gas           | \$ 50.00  | \$ 40.00  | \$ 45.00  |    |
| Groceries     | \$ 300.00 | \$ 375.00 | \$ 400.00 |    |
| Clothes       | \$ -      | \$ 300.00 | \$ 150.00 |    |
| Medicine      | \$ 100.00 | \$ 100.00 | \$ 100.00 |    |
| Entertainment | \$ 75.00  | \$ 150.00 | \$ 500.00 |    |
| TOTAL         |           |           |           |    |

### Insert Rows & Columns



**Insert a blank row:** Place cursor right below where you want to add a row. Click **Insert >> Rows**

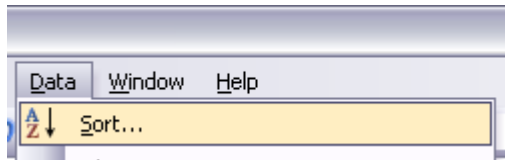
**Insert multiple rows::** Place cursor as above, highlight the number of new rows needed and Click **Insert>> Rows**

**Insert a new column:** Place cursor in cell directly to the right of where you would like the column. Click **Insert >> Columns.**

-Insert the Row below into your Expenses Spreadsheet

|           |           |           |           |            |
|-----------|-----------|-----------|-----------|------------|
| Education | \$ 400.00 | \$ 600.00 | \$ 700.00 | \$1,700.00 |
|-----------|-----------|-----------|-----------|------------|

**Sorting** Excel can sort data while still retaining the relationships among information  
 Use the “Sort” option in the “Data” menu top toolbar



Sort in **DESCENDING** order (Highest to Lowest)  
**ASCENDING** order (Lowest to Highest)

| 2007 Expenses |           |           |           |            |
|---------------|-----------|-----------|-----------|------------|
| EXPENSES      | JAN       | FEB       | MAR       | Q1         |
| Clothes       | \$ -      | \$ 300.00 | \$ 150.00 | \$ 450.00  |
| Education     | \$ 400.00 | \$ 600.00 | \$ 700.00 | \$1,700.00 |
| Entertainment | \$ 75.00  | \$ 150.00 | \$ 500.00 | \$ 725.00  |
| Gas           | \$ 50.00  | \$ 40.00  | \$ 45.00  | \$ 135.00  |
| Groceries     | \$ 300.00 | \$ 375.00 | \$ 325.00 | \$1,000.00 |
| Medicine      | \$ 100.00 | \$ 100.00 | \$ 100.00 | \$ 300.00  |



**Q1 DATA SORTED in DESCENDING ORDER**

|   | A             | B         | C           | D          | E          |
|---|---------------|-----------|-------------|------------|------------|
| 1 | 2007 Expenses |           |             |            |            |
| 2 | EXPENSES      | JAN       | FEB         | MAR        | Q1         |
| 3 | Education     | \$ 400.00 | \$ 600.00   | \$ 700.00  | \$1,700.00 |
| 4 | Groceries     | \$ 300.00 | \$ 375.00   | \$ 325.00  | \$1,000.00 |
| 5 | Entertainment | \$ 75.00  | \$ 150.00   | \$ 500.00  | \$ 725.00  |
| 6 | Clothes       | \$ -      | \$ 300.00   | \$ 150.00  | \$ 450.00  |
| 7 | Medicine      | \$ 100.00 | \$ 100.00   | \$ 100.00  | \$ 300.00  |
| 8 | Gas           | \$ 50.00  | \$ 40.00    | \$ 45.00   | \$ 135.00  |
| 9 | TOTAL         | \$ 925.00 | \$ 1,565.00 | \$1,820.00 | \$4,310.00 |

## Autofill Options

Excel will fill cells automatically to copy a formula or fill in a date, number series  
**FILL HANDLE** Find the small black square in the lower right corner of the highlighted area.

E3      fx      =SUM(B3:D3)

|   | A             | B         | C         | D         | E          |
|---|---------------|-----------|-----------|-----------|------------|
| 1 | 2007 Expenses |           |           |           |            |
| 2 | EXPENSES      | JAN       | FEB       | MAR       | Q1         |
| 3 | Medicine      | \$ 100.00 | \$ 100.00 | \$ 100.00 | \$ 300.00  |
| 4 | Groceries     | \$ 300.00 | \$ 375.00 | \$ 325.00 | \$1,000.00 |
| 5 | Gas           | \$ 50.00  | \$ 40.00  | \$ 45.00  | \$ 135.00  |
| 6 | Entertainment | \$ 75.00  | \$ 150.00 | \$ 500.00 |            |

**Grab the Fill Handle**  
 and drag with your  
 mouse to fill the formula  
 in empty cells.

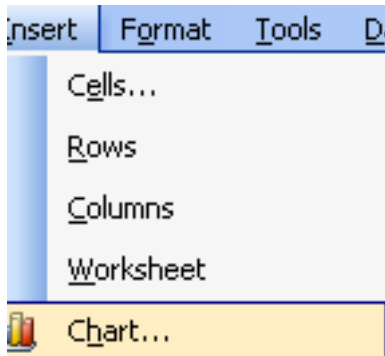
## GREEN & RED TRIANGLE ERROR FLAGS

|           |           |           |
|-----------|-----------|-----------|
| \$ 100.00 | \$ 100.00 | \$ 100.00 |
| \$ 450.00 | \$ 515.00 | \$ 470.00 |

A **Green triangle** signals that the formula differs from surrounding formulas.

**Red Triangle** flags a comment in that cell

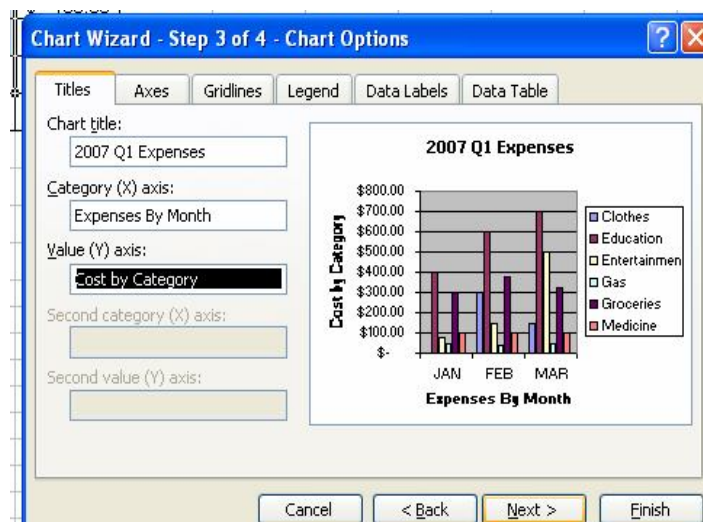
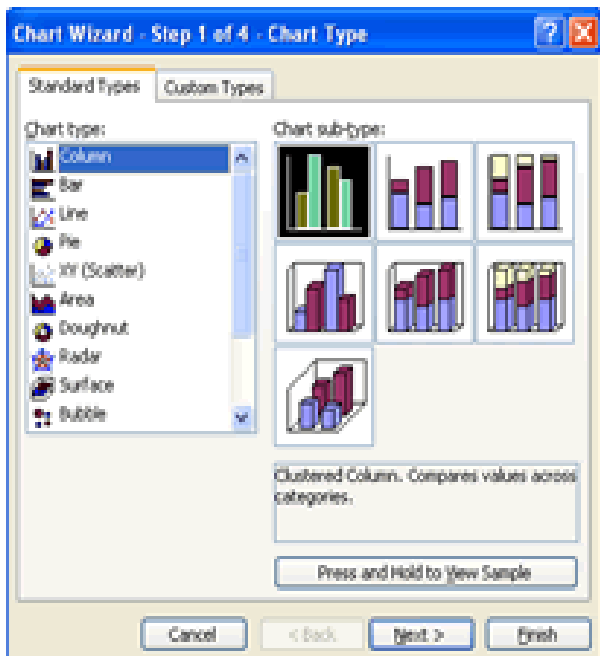
## Creating a Chart

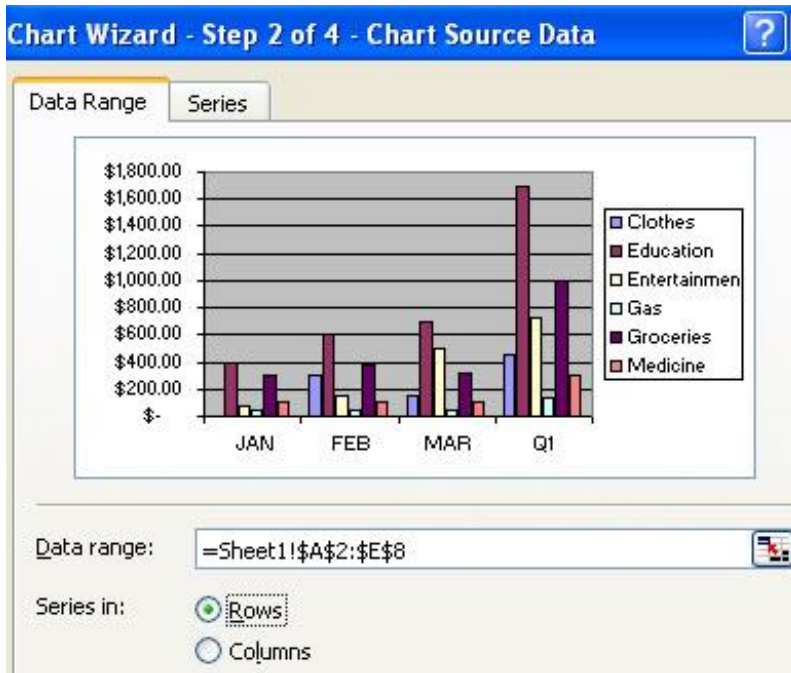


Highlight the spreadsheet rows & columns to include in chart,

EXPRESS WAY is to click F11 key (will produce a column chart)

**To control the type of chart and contents of chart use CHART WIZARD –Click icon**





**Axes** Hide or display information shown along x and y axes.

**Gridlines** Hide or display the lines that extend across the chart.

**Legend** Place the chart legend in different locations on the chart.

**Data Labels** Label the chart with the row and column title for each value, and with the values

**Be careful—you can easily clutter a chart and make it hard to read.**

**Data Table** Display a table containing all the data used to create the chart.

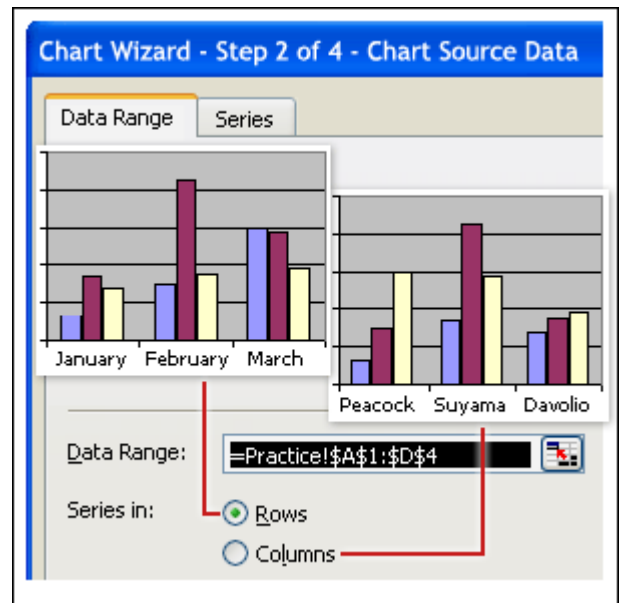
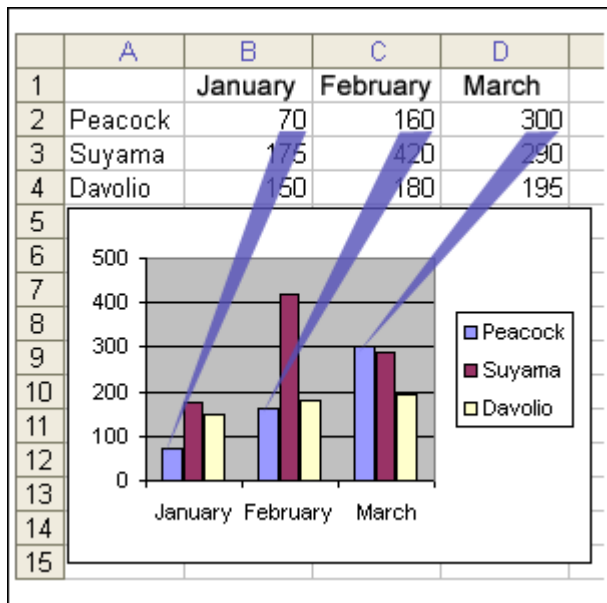
**Chart Location** Step 4 of the wizard gives you the option to place the chart As new sheet or As object in. If you choose a new sheet, you can choose a title for it. If you choose to place the chart as an object, it appears on the same sheet with the worksheet data used in creating it. If you create a chart the quick way by clicking Finish as soon as you see that button in the wizard, the chart is automatically placed As object in.

**TIP : To Delete a Chart style and Re-do, Right Click in the chart corner Menu opens, click Cut or Clear. Edit >>Undo does not work in Chart mode**

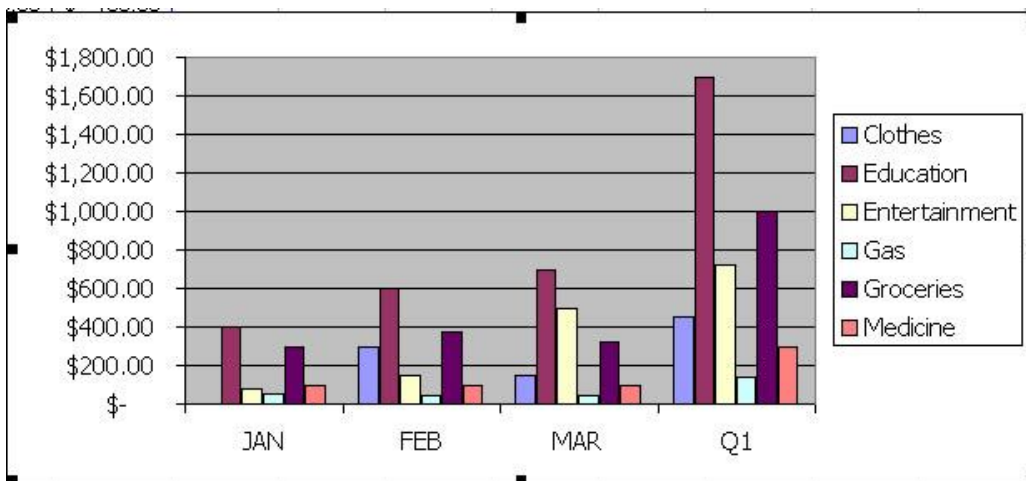
A chart can also be placed on a separate sheet in a workbook. When a chart is an object, it can be moved and resized, . It can also be printed right along with the source data.

### How a Spreadsheet Translates to a Column Chart

**Worksheet rows** become chart columns. **Row titles** become the chart legend text, **Column Titles** become the category names at the bottom of the chart



### Editing a Chart Layout using the Chart popup toolbar



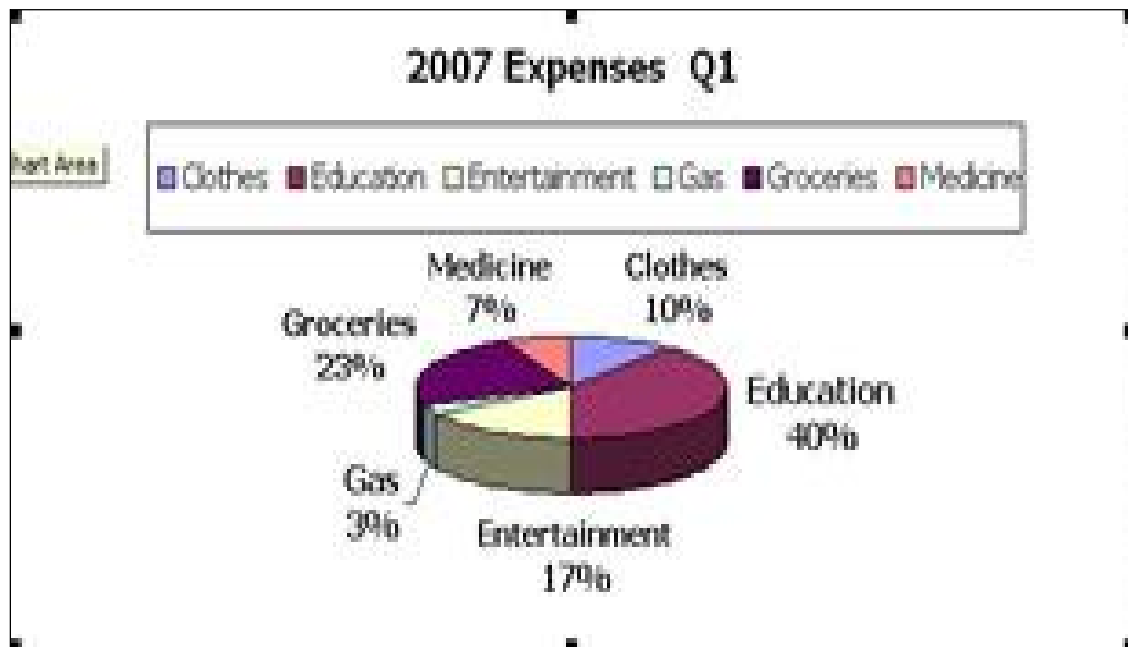
Edit the Expenses Legend box, Change the x and y variables,

Delete a chart and start over

## HIDE COLUMNS- How to include only Q1 total percentages in chart

| EXPENSES      | JAN              | FEB                | MAR               | Q1                |
|---------------|------------------|--------------------|-------------------|-------------------|
| Clothes       | \$ -             | \$ 300.00          | \$ 150.00         | \$ 450.00         |
| Education     | \$ 400.00        | \$ 600.00          | \$ 700.00         | \$1,700.00        |
| Entertainment | \$ 75.00         | \$ 150.00          | \$ 500.00         | \$ 725.00         |
| Gas           | \$ 50.00         | \$ 40.00           | \$ 45.00          | \$ 135.00         |
| Groceries     | \$ 300.00        | \$ 375.00          | \$ 325.00         | \$1,000.00        |
| Medicine      | \$ 100.00        | \$ 100.00          | \$ 100.00         | \$ 300.00         |
| <b>TOTAL</b>  | <b>\$ 925.00</b> | <b>\$ 1,565.00</b> | <b>\$1,820.00</b> | <b>\$4,310.00</b> |

| 2007 Expenses |                   |
|---------------|-------------------|
| EXPENSES      | Q1                |
| Clothes       | \$ 450.00         |
| Education     | \$1,700.00        |
| Entertainment | \$ 725.00         |
| Gas           | \$ 135.00         |
| Groceries     | \$1,000.00        |
| Medicine      | \$ 300.00         |
| <b>TOTAL</b>  | <b>\$4,310.00</b> |

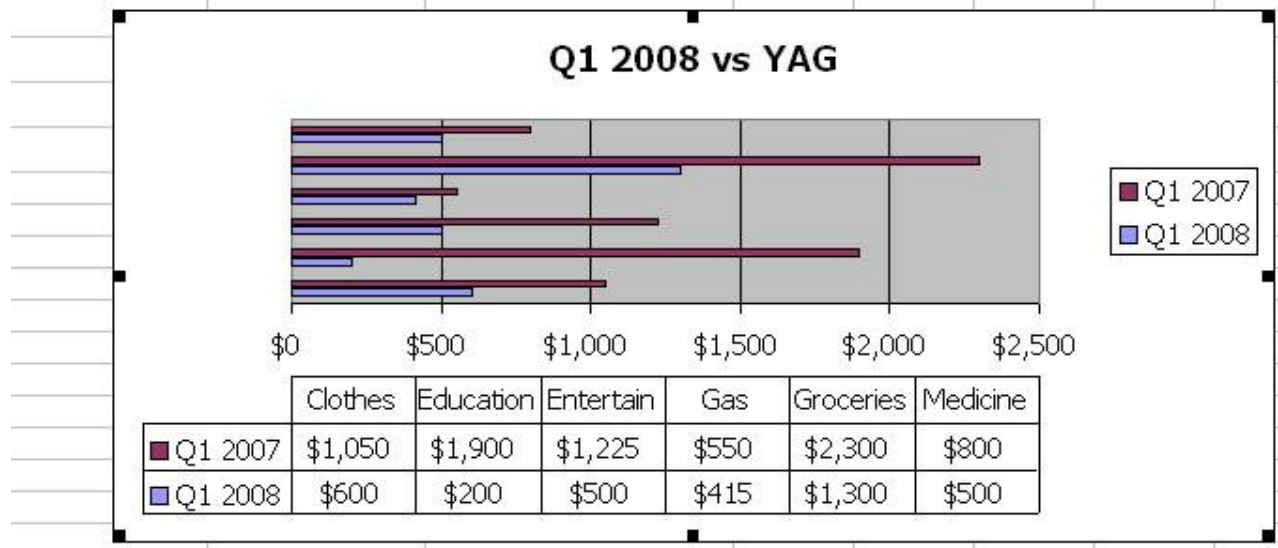


## COMPARISONS by DATE - With A Bar Chart

This chart shown as an OBJECT with data- not a new SHEET

The wizard placed the chart below as an object on the worksheet, along with the data, as shown in the picture

| 2007 Expenses |         |         |
|---------------|---------|---------|
| EXPENSES      | Q1 2008 | Q1 2007 |
| Clothes       | \$600   | \$1,050 |
| Education     | \$200   | \$1,900 |
| Entertainment | \$500   | \$1,225 |
| Gas           | \$415   | \$550   |
| Groceries     | \$1,300 | \$2,300 |
| Medicine      | \$500   | \$800   |
| TOTAL         | \$2,490 | \$4,310 |



## When to Use Different Basic Chart Types

**Bar-** Layout very similar to Column charts, except bars stretch horizontally from left to right. Excel does not offer 3-D bar chart options.

**Column** – Can be used for single or multiple data series. Excel offers stacked, clustered and 3-D column layout options.

**Pie-** Can show only one series of data, displaying the percentage or slice of each data component (eg. each type of expense allocation amount in a Quarter)

**Line** – Used to show changes over time and stress trends.

**Scatter-** Common in scientific, medical and statistical spreadsheets shows the relationship between 2 sets of numbers to identify a “Best fit” trendline.

Many Custom Chart types are offered—Bubbles, Area, Cones—Explore!

## **Links and More tutorials on Excel Charts**

<http://inpics.net/tutorials/excel2003/list.html>

<http://www.baycongroup.com/excel2003/excel02.htm>

[http://www.queenslibrary.org/index.aspx?page\\_nm=computer+basics+tutorials](http://www.queenslibrary.org/index.aspx?page_nm=computer+basics+tutorials)

Charts in Excel 2007 [http://www.internet4classrooms.com/on-line\\_excel.htm](http://www.internet4classrooms.com/on-line_excel.htm)

<http://office.microsoft.com/training/training.aspx?AssetID=RC011055061033>