

Introduction to Excel 2003 –Rockaway Township Library Computer Class

What is EXCEL? It's a Microsoft Office software program for organizing and analyzing numbers, data, and labels in spreadsheet form. With EXCEL, It is easy to translate tables of data into charts and graphs for presentations.

Access this handout online <http://www.rtlibrary.org/Intro%20to%20Excel%202003.pdf>

Topics covered in this Excel class

- 1) Toolbar basics: File menu, Insert menu, Formula bar
- 2) Worksheet layout: column, row, cell, spreadsheets
- 3) How to enter data
- 4) Editing Inputs: Delete, Copy, Paste
- 5) Basic Math functions: addition, subtraction, multiplication, division
- 6) Formatting numbers: percentages, decimals, Absolute Reference
- 7) Formatting cells

1) Toolbars -Top Left Corner of Screen



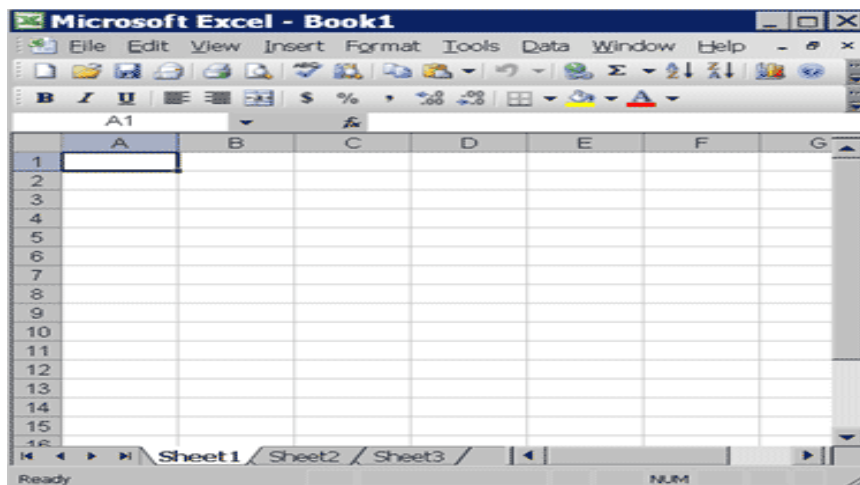
Standard Toolbar



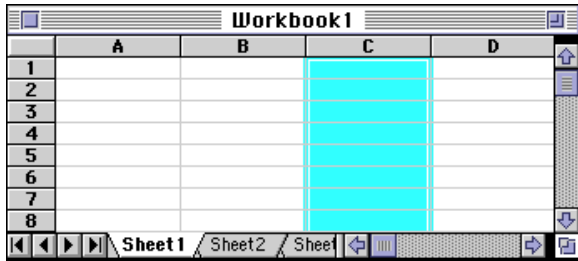
Formatting Toolbar



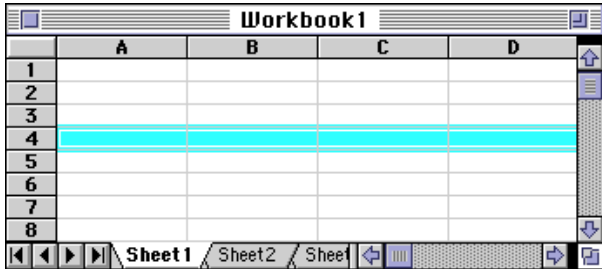
OPEN EXCEL and a new blank SPREADSHEET is created



2) EXCEL Spreadsheet is divided into COLUMNS, ROWS and CELLS

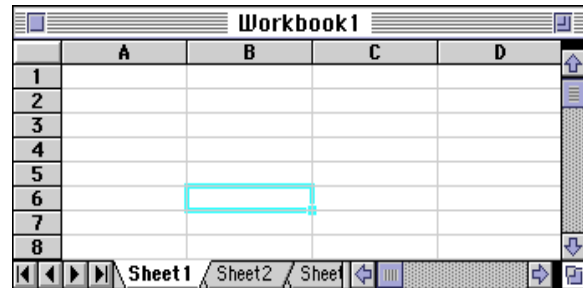


A **COLUMN** is one vertical space from top to bottom in the spreadsheet. **Letters** indicate COLUMN location. COLUMN C is highlighted.



A **ROW** is one horizontal space running left to right across the sheet. **Numbers** indicate **ROW** location. Here ROW 4 is highlighted.

. A **CELL** is the space in which one row and one column intersect. **CELL B6** is highlighted. A CELL is named by COLUMN then ROW



In each Excel Spreadsheet cell there may be 3 types of data

- Labels (text with no numerical value)
- Numbers
- Formulas (mathematical equations that do all the work)

Data types	examples	descriptions
LABEL	Names, Addresses, Dates, Titles	anything that is just text
NUMBER	5 , 3.75 , -7.4, .00342	any number
FORMULA	=5+3 or = 8*5+3	math equation

EXCEL example-- We'll be entering data to create this Expenses spreadsheet

	A	B	C	D	E
1	2009 Expenses				
2	EXPENSES	JAN	FEB	MAR	Q1
3	Gas	\$50	\$40	\$45	\$135
4	Groceries	\$250	\$225	\$200	\$675
5	Clothes	\$0	\$300	\$150	\$450
6	Medicine	\$100	\$100	\$100	\$300
7	Entertainment	\$75	\$150	\$500	\$725
8	TOTAL	\$475	\$815	\$995	\$2,285
9					

3) ENTERING DATA

Move to the cell where you want to enter data and TYPE in words or a number

For numbers, don't worry about \$ signs, percentages - We'll cover this later in "Formatting"

How to mark Labels or Data so they're not counted in a formula

If you have a number, on which you do not want to perform mathematical calculations, ENTER IT AS A LABEL by **typing** ' a single quotation mark first in the cell

Type **'100** and hit **Enter**

a green triangle appears in the upper left corner of the cell to mark it as a Label

Moving around the Excel Spreadsheet

a) Move your mouse and Left Click into the cell you want

b) **TO MOVE UP and DOWN a COLUMN**

Click Up Arrow ↑ on keyboard to move UP one cell

Click Down Arrow ↓ on keyboard to move DOWN one cell

c) **TO MOVE ACROSS a ROW**

Click Tab key to move one cell at a time across a row OR

Click arrows on keyboard to move ←left or →right one cell in row at a time

d) **USE SCROLL Bars** on Right Side of Screen and Bottom of Screen to Move Fast

e) **"Go to" Shortcut**

If you press the F5 key on the top row of your keyboard, you will be prompted for the cell to which you wish to go. Enter the cell address, and the cursor jumps to that cell.

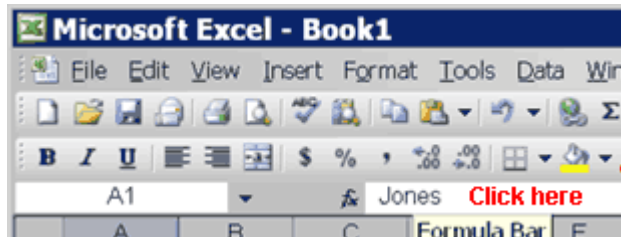
4) EDITING DATA

- To Move Data
- 1) Click and highlight the data you want to move
 - 2) In **"Edit"** in Menu Bar on top, click on **"Cut"** (*Data will disappear*)
 - 3) Put cursor in cell where you want data to go, and click on **"Paste"** in "Edit"

- To Copy Data
- 1) Click and highlight the data you want to copy
 - 2) In **"Edit"** in Menu Bar on top, click on **"Copy"** (*Puts same Data 2 places*)
 - 3) Put cursor in cell where you want data to go, and click on **"Paste"** in "Edit"

- To Delete Data
- 1) In a cell, use **Backspace** key to delete a character at a time & retype **OR**
 - 2) Place cursor in the cell or highlight some cells and press **Delete** key **OR**
 - 3) Highlight cell(s) to delete, click "**Edit**" and click "**Delete**"

- To Change Data
- 1) Click in formula area of the Formula bar.
 - 2) Backspace to delete and retype the data



- To Save Data
- 1) In "**File**" in Menu Bar, click "**Save As**" first time you save a new file
 - 2) Name file e.g. "2007 Expenses" – CHECK WHERE YOU'VE SAVED

SAVE your work often by clicking "File" and "Save"

5) BASIC MATH FUNCTIONS

- + Addition (2+4=6)
- Subtraction (6-4=2)
- * Multiplication (2*3=6)
- / Division (6/3=2)

= Equal sign Every formula in Excel must start with =

When writing your own equation, use cell addresses not the numbers

ADDITION by typing in a Formula B3+C3+D3

NOTE! TYPE CELL ADDRESSES NOT ACTUAL NUMBERS IN FORMULA

	A	B	C	D	E
1	2007 Expenses				
2	EXPENSES	JAN	FEB	MAR	Q1
3	Gas	50	40	45	\$ 135.00

6) Using Σ Auto Sum

Excel will ADD or SUM TOTAL a column or row of numbers.

Gas	50
Groceries	250
Clothes	0
Medicine	100
Entertainment	75

TOTAL

Gas	50
Groceries	250
Clothes	0
Medicine	100
Entertainment	75

TOTAL =SUM (B3:B7)

Gas	50
Groceries	250
Clothes	0
Medicine	100
Entertainment	75

TOTAL 475

Step 1 - Select cell below your column of numbers).

Σ Step 2 - Select Auto Sum button from Standard toolbar

Step 3 - Verify range of numbers is correct, click Enter and the sum is displayed.

Applying the Same Formula to Several Cells

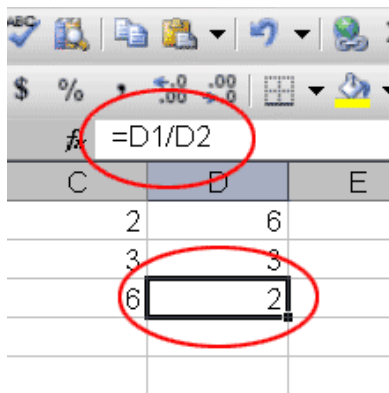
Highlight cell with =B3+C3+D3, Click on "Edit", Copy" and "Paste" formula into Q1 cell for Groceries and Clothes

2009 Expenses				
EXPENSES	JAN	FEB	MAR	Q1
Gas	50	40	45	=B3+C3+D3
Groceries	250	225	200	=B4+C4+D4
Clothes	0	300	150	=B5+C5+D5

Subtraction Example Q1 Total Expenses minus Gas cost =E8-E3 or \$2150.00

2009 Expenses				
EXPENSES	JAN	FEB	MAR	Q1
Gas	50	40	45	\$ 135.00
Groceries	250	225	200	\$ 675.00
Clothes	0	300	150	\$ 450.00
Medicine	100	100	100	\$ 300.00
Entertainment	75	150	500	\$ 725.00
TOTAL	475	\$ 815.00	\$ 995.00	\$ 2,285.00
TOT Ex Gas				=E8-E3

1. Division Example 6/3=2 calculated in Excel



Type 6 in D1
 Type 3 in cell D2.
 Type =D1/D2 in cell D3.
 Press Enter.
 Cell D1 is divided by cell D2 and the result is displayed in cell D3.

=(B1/B2)*100	
B	C
2	
8	
25	

Calculate percent - A number divided by a second number and multiplied by 100 = what percent the first number is of the second number.
 If you do not multiply by 100 you have the decimal equivalent of percent.

	A	B	C
1	Ice Cream Survey	Students	percent of total
2	Chocolate	6	
3	Strawberry	5	
4	Vanilla	4	
5	Peach	3	
6	Chocolate Ripple	2	
7	Butter Pecan	2	
8	Neapolitan	1	
9	Black Cherry	1	
10	Total	24	

	A	B	C	D
1	Ice Cream Survey	Students	percent of total	
2	Chocolate	6	25	
3	Strawberry	5	#DIV/0!	
4	Vanilla	4	#DIV/0!	
5	Peach	3	#DIV/0!	
6	Chocolate Ripple	2	#DIV/0!	
7	Butter Pecan	2	#DIV/0!	
8	Neapolitan	1	#DIV/0!	
9	Black Cherry	1	#DIV/0!	
10	Total	24	#DIV/0!	

Above is an example when **YOU CAN'T JUST COPY & PASTE FORMULA**

YOU NEED Absolute Cell Reference – The \$ sign before a Column Letter tells Excel to use one specific cell, and never move to another relative location in the calculations

\$B\$10 says always use cell B10 in calculating the %ages above

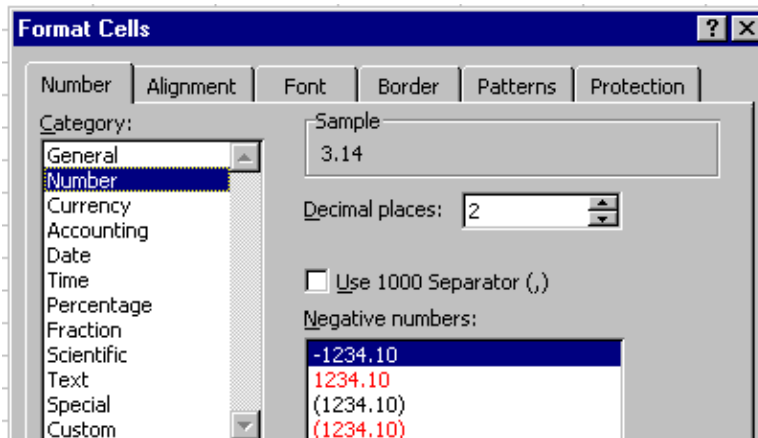
	A	B	C	D
1	Ice Cream Survey	Students	percent of total	
2	Chocolate	6	25	
3	Strawberry	5	20.83333	
4	Vanilla	4	16.66667	
5	Peach	3	12.5	
6	Chocolate Ripple	2	8.333333	
7	Butter Pecan	2	8.333333	
8	Neapolitan	1	4.166667	
9	Black Cherry	1	4.166667	
10	Total	24	100	

Using more than one math function in a formula

Excel follows the rules of operator precedence instead of just calculating from left to right. Multiplication is done before addition: $=11.97+3.99*2$ is 19.95..

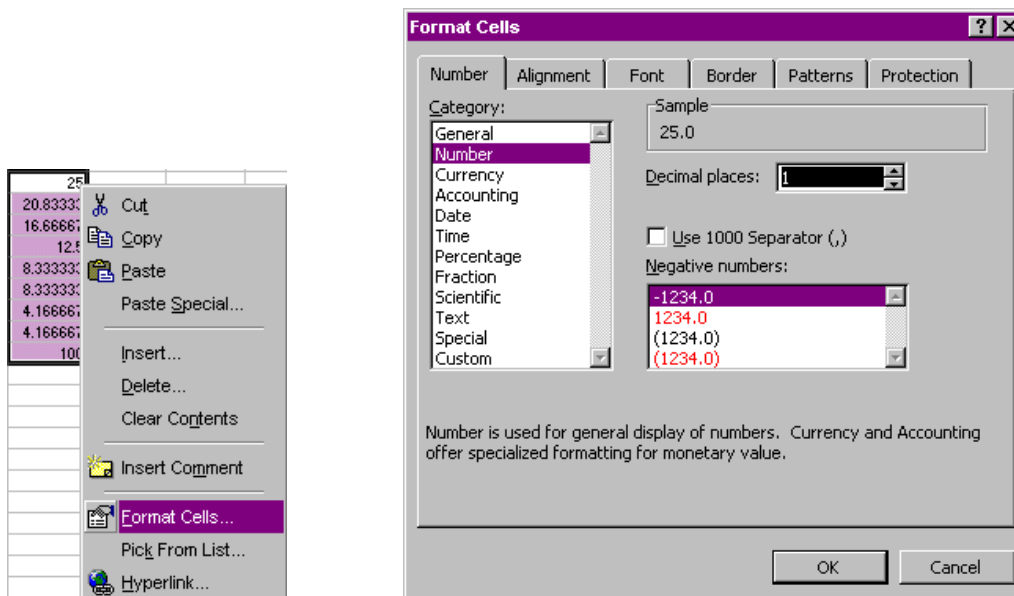
- 1) Operations inside parentheses take place first: $=(11.97+3.99)*2$ is 31.92. Excel adds first and then multiplies the result by 2.
- 3) Excel does use operators from left to right if they have the same level of precedence.
- 4) Multiplication and division are on the same level
- 5) Lower than multiplication and division, addition and subtraction are on the same level

Format (On Menu Bar) – Once information has been entered into a cell, and you want to format the data. go to the Format menu. Select Type of format



Changing the # of Decimal Places

Right-click on the highlighted range of cells, and select Format Cells



Wrapping Text

When you enter text that is too long to fit into a cell, it overlaps the next cell
If you do not want it to overlap the next cell you can wrap the text.

1. Choose **“Format”** and **“Cells”** from menu bar
2. Choose the **“Alignment”** tab.
3. Click **“Wrap Text”**
4. Click **OK**. The text wraps

Centering data by Using the Formatting Toolbar

1. Move the cursor to cell you want to format.
2. Click the Center icon, which is located on the Formatting toolbar.



Inserting Rows or Columns

1. Click "Insert" on top menu and select "Row" or "Column".
2. One will be inserted next to where you clicked.
Formula relationships will be preserved

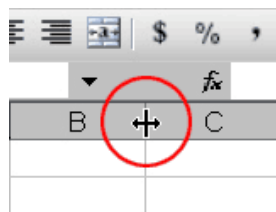
Deleting Rows or Columns

1. Highlight area or cells to delete.
2. Click "Edit" on top menu and "Delete"
3. In Pop-up box, choose option desired- Delete row, Delete column, or Shift cells

Formatting Rows and Columns by using the "Format" menu

1. Highlight the cells you want to re-format
2. Click "Format" and "Rows" to change the row height
3. Click "Format" and "Columns" to change the column width
4. Select "Auto-fit" and Excel will automatically resize columns to fit the data entered

Changing a Single Column Width by Dragging



Place the cursor on the line between the column headings you want to change. The cursor should look like the one here, with two arrows.

Move your mouse to the right while holding down the left mouse button. Release mouse when you reach the width desired..

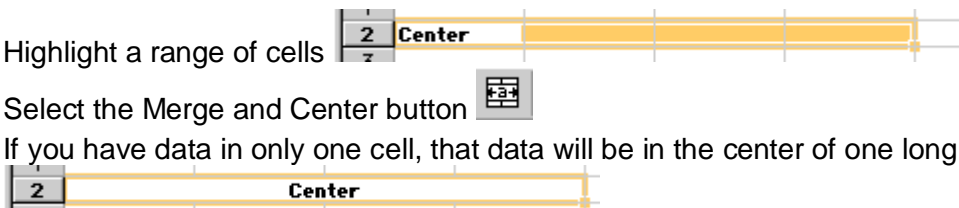
FORMATTING TYPESTYLE

You change font style, size, color, as well as bold, underline and italicize text by clicking on the appropriate icon in the Formatting menu bar

Using Merge and Center

This merges multiple single cells to create one large cell for Headings, Comments, etc.

1. Highlight a range of cells
2. Select the Merge and Center button
3. If you have data in only one cell, that data will be in the center of one long cell.



The Rockaway Township Library TUTORIAL was derived from these online tutorials
<http://www.baycongroup.com/el0.htm>
<http://office.microsoft.com/en-us/training/CR061831141033.aspx>