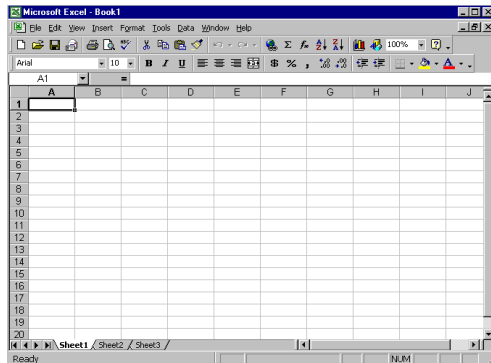




# Excel II

## More on Spreadsheets





# Unit 1: Review of the Basics

## Overview:

In this unit, we will focus on a review of the basics. You should already know how to:

Create and save a new workbook

- Edit or delete data within cells
- Move around within a worksheet as well as move from worksheet to worksheet within a workbook
- Insert and delete columns or rows
- Change the look of a spread-sheet using the toolbars:
  - ◊ Center Across Columns
  - ◊ Bold, Italics, Underline
  - ◊ Font Style and Size
  - ◊ Fill and Font Color
  - ◊ Alignment
  - ◊ Number Format (\$, %)
  - ◊ Decimal Increase/Decrease

	A	B	C	D
1	Sample Spreadsheet			
2				
3		Mary	Bob	Frank
4	Monday	\$ 450	\$ 225	\$ 175
5	Tuesday	\$ 590	\$ 350	\$ 500
6	Wed.	\$ 360	\$ 400	\$ 630
7	Total	\$ 1,400	\$ 975	\$ 1,305
8				

## Lesson Topic

## Notes

1	Creating and editing a worksheet	Type directly into a selected cell. Press ENTER or one of the Directional Arrow keys to enter data. Change cell contents by first selecting the cell to be edited, then make corrections in the Formula Bar. Click on the green checkmark to enter the changes.
2	Using AutoSum	AutoSum (Sigma symbol) lets you quickly add numbers.
3	Selecting ranges of cells	Click and drag to highlight (select) a range of cells.
4	Inserting and deleting columns and rows	To delete: select column or row, then EDIT, DELETE; To insert: Select column or row, then INSERT, COLUMN OR ROW
5	Adding format attributes	Tools include: Center Across Columns, Bold, Italics, Underline, Cell Alignment, Font Style and Size, Borders, Fill, Font Color, number format tools (\$, %), Decimal Increase and Decrease.
6	Using the Undo Tool	Click on it to reverse actions you've made.

## Practice Exercise #1

1. Open Excel, then open the file entitled: Excel II Practice Wkbook which is stored on the floppy diskette. Click on the Tab entitled Candy and create the spreadsheet seen to the right. Don't forget to AutoSum in B9:D9.
2. Insert a row between 5 and 6 for Tootsie Rolls. Enter data as follows: B6=25, C6=55, D6=40. (Do not worry that some letters get cut off. We'll fix this later.
3. Insert two columns between B and C for Gena and Tom. Enter data as follows: For Gena - C4=20, C5=30, C6=35, C7=40, C8=50, C9=AutoSum and for Tom - D4=75, D5=60, D6=20, D7=65, D8=55, D9=AutoSum.
4. Select Column B and delete it.
5. Make the contents of A1 bold and underlined. Change the font size to 16. Then merge & center the contents of A1 across A1:E1.
6. Select the range A4:A9 and make it italic. Do the same to B3:E3.
7. Select the range B3:E9 and make the cell contents centered.
8. Select the range B4:E9 and format the contents as for currency. Make sure there are no decimal places.
9. Select the range A1:F18 and add gridlines, a fill of your choice, and change the font style to one of your choice.
10. Select Rows 5, 6, and 7 and delete them.
11. Use Undo to reverse the previous action and bring back Rows 5, 6, and 7.
12. Save this file (FILE menu, SAVE AS command) as: <Your First & Last Name>.

	A	B	C	D
1	Halloween Candy			
2				
3		Lil	Fran	Sid
4	Snickers	38	40	53
5	Reeses	64	33	23
6	Gum	21	3	11
7	Lollipops	3	8	0
8	Total	126	84	87

	A	B	C	D
1	Halloween Candy			
2				
3		Lil	Fran	Sid
4	Snickers	38	40	53
5	Reeses	64	33	23
6	Tootsie Ro	25	55	40
7	Gum	21	3	11
8	Lollipops	3	8	0
9	Total	151	139	127

	A	B	C	D	E	F
1	Halloween Candy					
2						
3		Lil	Gena	Tom	Fran	Sid
4	Snickers	38	20	75	40	53
5	Reeses	64	30	60	33	23
6	Tootsie Rolls	25	35	20	55	40
7	Gum	21	40	65	3	11
8	Lollipops	3	50	55	8	0
9	Total	151	175	275	139	127

	A	B	C	D	E
1	<b><u>Halloween Candy</u></b>				
2					
3		<b><i>Gena</i></b>	<b><i>Tom</i></b>	<b><i>Fran</i></b>	<b><i>Sid</i></b>
4	<b><i>Snickers</i></b>	<b>\$ 20</b>	<b>\$ 75</b>	<b>\$ 40</b>	<b>\$ 53</b>
5	<b><i>Reeses</i></b>	<b>\$ 30</b>	<b>\$ 60</b>	<b>\$ 33</b>	<b>\$ 23</b>
6	<b><i>Tootsie Ro</i></b>	<b>\$ 35</b>	<b>\$ 20</b>	<b>\$ 55</b>	<b>\$ 40</b>
7	<b><i>Gum</i></b>	<b>\$ 40</b>	<b>\$ 65</b>	<b>\$ 3</b>	<b>\$ 11</b>
8	<b><i>Lollipops</i></b>	<b>\$ 50</b>	<b>\$ 55</b>	<b>\$ 8</b>	<b>\$ -</b>
9	<b><i>Total</i></b>	<b>\$ 175</b>	<b>\$ 275</b>	<b>\$ 139</b>	<b>\$ 127</b>



# Unit 2: Formula Fundamentals

## Overview:

One of the most valuable features of Excel is its ability to calculate values by using formulas. Excel formulas can range from the simple, such as adding a range of values, to the complex, using algebraic expressions.

You can calculate values based on numbers that you type directly into the formula:

=4+3+5

However, the power of Excel's formula capability lies in the fact that you can enter cell addresses into formulas:

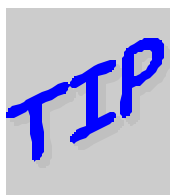
=A5+B5+C5

	A
1	450
2	590
3	360
4	=A1+A2+A3
5	

## Lesson Topic

## Notes

1	Writing a simple formula with number values	<div>The format differs for equations in Excel :</div> <table><tr><td>Math Format</td><td>Excel Format</td></tr><tr><td>1+2=3</td><td>=1+2</td></tr><tr><td>6-4=2</td><td>=6-4</td></tr><tr><td>5X4=20</td><td>=5*4</td></tr><tr><td>30÷3=10</td><td>=30/3</td></tr></table>	Math Format	Excel Format	1+2=3	=1+2	6-4=2	=6-4	5X4=20	=5*4	30÷3=10	=30/3
Math Format	Excel Format											
1+2=3	=1+2											
6-4=2	=6-4											
5X4=20	=5*4											
30÷3=10	=30/3											
2	Writing a formula using cell addresses	Examples: =B4+B5+B6 or =B4/2 or =D5*A4										
3	Complex formulas that combine arithmetic operations (Hierarchy of Operation)	Excel reads formulas left to right. However, it will perform expressions set off in parentheses first, then perform multiplication and division next, and finally finish with addition and subtraction last. For example: A=3+b11*3-c14/2+(E4-E3) will calculate (E4-E3) first, then go on to multiply B11*3, then C14/2, then perform any addition and subtraction that remains.										



## Simple Formula Rules:

- Always begin a formula with an equal (=) sign.
- Always reference a cell with the letter first followed by the number.  
Example: A1
- Use mathematical symbols that Excel recognizes (+ Addition, - Subtraction, \* Multiplication, / Division)
- Do not put spaces in formulas.
- Type the formula in the cell you want to see the result in.

## Practice Exercise #2

Click on the Tab entitled Candy and follow the directions as set forth below:

1. In Cell F3 add a new column heading: Total
2. In Cell F9 create a formula that adds the contents of Cells B9, C9, D9, and E9. (Do not use AutoSum here!)
3. In Cell A12 add a new row heading: % of Total Sales
4. In Cell B12 create a formula that calculates the percent of total sales that Gena generated. (Formula should look like: =B9/F9.)
5. Repeat the process in Cells C12 (to calculate Tom's sales), D12 (to calculate Fran's sales), and E12 (to calculate Sid's sales).
6. In Cell F12, sum the contents of Cells B12, C12, D12, and E12. (You can create a formula or use AutoSum. Your choice.)
7. Select the Range B12:F12 and apply the % format to the cells.

In order to keep their jobs, management has decided that each employee must double their sales in the next year.

8. In Cell A13 add a new row heading: Projected Sales
9. In Cell B13, calculate how much Gena must sell in order to keep her job. (Formula should look like: =2\*B9).
10. Copy and paste the formula from B13 into C13, D13, and E13 to calculate what Todd, Fran, and Sid must earn to keep their jobs. Also, copy the formula to F13 to calculate a projected total for the group.
11. Save the changes.

	A	B	C	D	E	F
1	<b>Halloween Candy</b>					
2						
3		<i>Gena</i>	<i>Tom</i>	<i>Fran</i>	<i>Sid</i>	<b>Total</b>
4	<i>Snickers</i>	\$ 20	\$ 75	\$ 40	\$ 53	
5	<i>Reeses</i>	\$ 30	\$ 60	\$ 33	\$ 23	
6	<i>Tootsie Rolls</i>	\$ 35	\$ 20	\$ 55	\$ 40	
7	<i>Gum</i>	\$ 40	\$ 65	\$ 3	\$ 11	
8	<i>Lollipops</i>	\$ 50	\$ 55	\$ 8	\$ -	
9	<b>Total</b>	\$ 175	\$ 275	\$ 139	\$ 127	\$ 716

	A	B	C	D	E	F
1	<b>Halloween Candy</b>					
2						
3		<i>Gena</i>	<i>Tom</i>	<i>Fran</i>	<i>Sid</i>	<b>Total</b>
4	<i>Snickers</i>	\$ 20	\$ 75	\$ 40	\$ 53	
5	<i>Reeses</i>	\$ 30	\$ 60	\$ 33	\$ 23	
6	<i>Tootsie Rolls</i>	\$ 35	\$ 20	\$ 55	\$ 40	
7	<i>Gum</i>	\$ 40	\$ 65	\$ 3	\$ 11	
8	<i>Lollipops</i>	\$ 50	\$ 55	\$ 8	\$ -	
9	<b>Total</b>	\$ 175	\$ 275	\$ 139	\$ 127	\$ 716
10						
11						
12	<b>% of Total Sales</b>	0.24441	0.38408	0.19413	0.17737	1
13						

	A	B	C	D	E	F
1	<b>Halloween Candy</b>					
2						
3		<i>Gena</i>	<i>Tom</i>	<i>Fran</i>	<i>Sid</i>	<b>Total</b>
4	<i>Snickers</i>	\$ 20	\$ 75	\$ 40	\$ 53	
5	<i>Reeses</i>	\$ 30	\$ 60	\$ 33	\$ 23	
6	<i>Tootsie Rolls</i>	\$ 35	\$ 20	\$ 55	\$ 40	
7	<i>Gum</i>	\$ 40	\$ 65	\$ 3	\$ 11	
8	<i>Lollipops</i>	\$ 50	\$ 55	\$ 8	\$ -	
9	<b>Total</b>	\$ 175	\$ 275	\$ 139	\$ 127	\$ 716
10						
11						
12	<b>% of Total Sales</b>	24%	38%	19%	18%	100%
13	<b>Projected Sales</b>	\$ 350	\$ 550	\$ 278	\$ 254	\$ 1,432



# Unit 3: Working with Functions

## Overview:

Excel has built-in, ready-to-use functions for everything from Boolean logic to financial calculations. While you COULD do many of the same things using formulas, cell references, and operators, Excel provides you valuable short-cuts to formula creation in the form of functions.

Excel's Function Wizard saves you a great deal of effort in this regard. The Wizard contains a large library of functions—mathematical, financial, logical, statistical, etc. right at hand for your convenience.

We won't be able to cover every function in this class, but by familiarizing yourself with just a few of your options, you pretty much have the key to all other functions should you ever need them.

## Lesson Topic

## Notes

1	Using the Function Wizard	<ol style="list-style-type: none"> <li>1) Select the cell you want to put the formula's result into,</li> <li>2) Click on the PASTE FUNCTION tool in the Standard Toolbar to bring up the Paste Function Dialog Box,</li> <li>3) Click on the ALL CATEGORY option and select your choice of function from the list,</li> <li>4) Click on OK to proceed; this brings up a second Function Wizard screen wherein Excel automatically guesses what range of cells you intend to apply the function to. Note that you can adjust or change the range to suit your needs,</li> <li>5) If the dialog box is obscuring a part of the worksheet that you want to see, just drag it out of the way</li> <li>6) Once the correct range has been established, click on OK to complete the Wizard process; the result will show up in the selected cell.</li> </ol>
2	Average, Maximum, Minimum	Average, Maximum, and Minimum are among the most commonly used functions. Averages are the arithmetic mean of a set of numbers contained within cells. The MAX (Maximum) function returns the value of the highest number in a set of cells, while MIN (Minimum) returns the value of the lowest number in a set of cells.
3	Sum and AutoSum	The SUM function gives the total value of all the referenced cells added together. However, because practically everyone who uses Excel wants to total rows and columns, Microsoft added the AutoSum button to the Standard Toolbar. It's the one symbolized by the Greek Sigma symbol.

## Practice Exercise #3

Click on the Tab entitled Candy and follow the directions as set forth below:

1. In cell A14 add a new row heading: Average
2. Go on to find the Average of B4:B8 (Gena's Sales), C4:C8 (Tom's Sales), D4:D8 (Fran's Sales), and E4:E8 (Sid's Sales).
3. In cell A15 add a new row heading: Highest Value
4. Go on to find the Maximum of B4:B8 (Gena's Sales), C4:C8 (Tom's Sales), D4:D8 (Fran's Sales), and E4:E8 (Sid's Sales).
5. In cell A16 add a new row heading: Lowest Value
6. Go on to find the Minimum of B4:B8 (Gena's Sales), C4:C8 (Tom's Sales), D4:D8 (Fran's Sales), and E4:E8 (Sid's Sales).
7. In cell A16 add a new row heading: Number of Sales
8. Go on to find the Count of B4:B8 (Gena's Sales), C4:C8 (Tom's Sales), D4:D8 (Fran's Sales), and E4:E8 (Sid's Sales). Make sure that this last function is formatted for numbers not currency.

	A	B	C	D	E	F
1	<b>Halloween Candy</b>					
2						
3		<i>Gena</i>	<i>Tom</i>	<i>Fran</i>	<i>Sid</i>	<i>Total</i>
4	<i>Snickers</i>	\$ 20	\$ 75	\$ 40	\$ 53	
5	<i>Reeses</i>	\$ 30	\$ 60	\$ 33	\$ 23	
6	<i>Tootsie Rolls</i>	\$ 35	\$ 20	\$ 55	\$ 40	
7	<i>Gum</i>	\$ 40	\$ 65	\$ 3	\$ 11	
8	<i>Lollipops</i>	\$ 50	\$ 55	\$ 8	\$ -	
9	<i>Total</i>	\$ 175	\$ 275	\$ 139	\$ 127	\$ 716
10						
11	% of Total Sales	24%	33%	19%	18%	100%
12	Projected Sales	\$ 350	\$ 550	\$ 278	\$ 254	\$ 1,432
13						
14	Average	\$ 35	\$ 55	\$ 28	\$ 25	
15	Highest Value	\$ 50	\$ 75	\$ 55	\$ 53	
16	Lowest Value	\$ 20	\$ 20	\$ 3	\$ -	
17	Number of Sales	5	5	5	5	

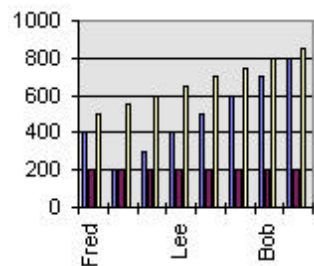
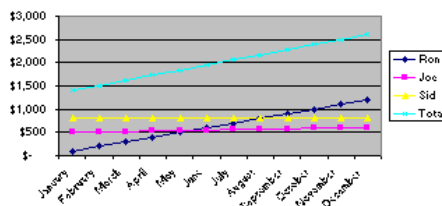
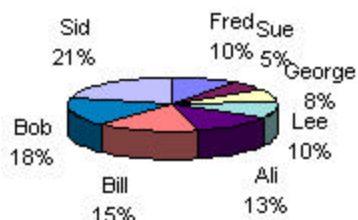




# Unit 4: Adding Charts

## Overview:

In this unit, we will focus on some of the techniques you can use to add charts to your worksheet.



## Lesson Topic

## Notes

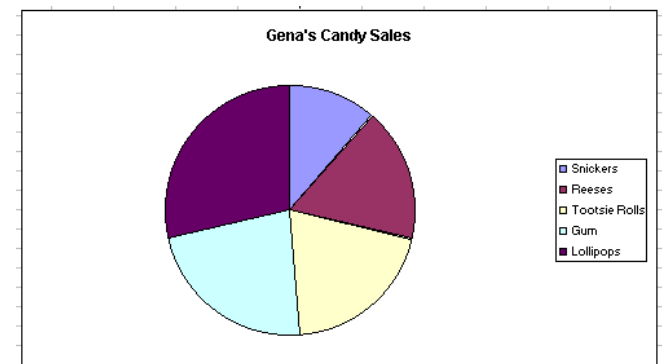
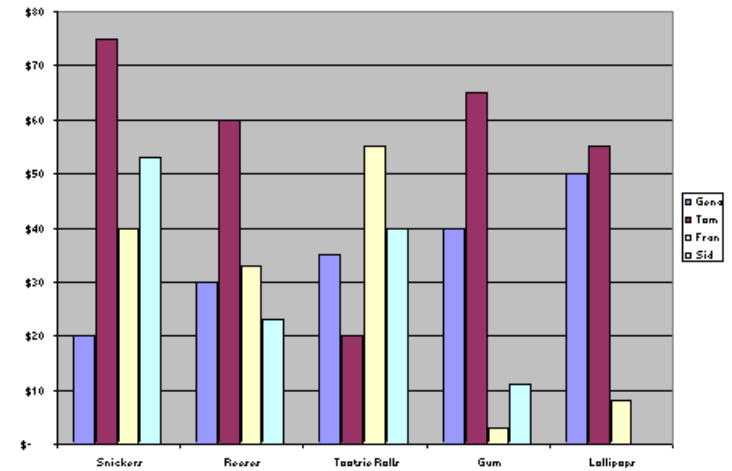
1	Method 1 for inserting a chart	Select the range. (Be sure to include headings.) Press the F11 key. Excel puts the chart on a new separate worksheet which it names "Chart 1."
2	Method 2 for inserting a chart	Select the range (with headings). On the INSERT menu, select CHART. Follow the Wizard's directions.
3	Method 3 for inserting a chart	Select the range (with headings). Click on the Chart Wizard Tool Button. Follow the Wizard's directions.
4	Editing your chart	Select the component you wish to change and right click with your mouse. Also note that under the VIEW menu, TOOLBARS command, you can bring up a Chart Toolbar that might make editing your chart easier.
5	Editing your spreadsheet	Any changes to values in your spreadsheet will automatically be reflected in your accompanying chart.



## Practice Exercise #4

Click on the Tab entitled Candy and follow the directions as set forth below:

1. Select the range A3:E8.
2. Press the F11 key.
3. Click on the Candy Tab to return to the spreadsheet.
4. Select the range A3:B8 (Gena's sales) and click on the Chart Wizard tool. Follow the Wizard's instructions to create a Pie Chart for Gena. Entitle the chart "Gena's Candy Sales."
5. Change the data in B4 from 20 to 200. Did the pie chart change to reflect the new data?
6. Click once on the pie chart to select it. Click again on any slice of the pie to select it. Now double-click on the slice again to bring up a dialog box which will allow you to change the format of your chart. Change the color of the pie slice to another of your choice.
7. Save changes to your worksheet.





# Unit 5: Printing Your Worksheet

## Overview:

Topics covered in this unit include:

**Page Layout**—At time you will find that your spreadsheet is wider than it is long. Therefore, changing the page orientation from portrait to landscape will serve you better. In addition, you might find that you need to change the margins to get your spreadsheet on one page. Both changes are executed from the FILE menu, PAGE SETUP command.

**Headers and Footers**—Headers appear at the top of every page in a multi-page worksheet while footers appear at the bottom of every page of a multi-page worksheet. Examples of what you might like to include in a Header or Footer are your name, the spreadsheet name, the date and perhaps the time.

**Previewing your Worksheet**—It is especially important in Excel to check out Print Preview before you print in order to get an accurate idea of how the file will look.

## Lesson Topic

## Notes

1	Changing Your Orientation	FILE menu, PAGE SETUP command, PAGE tab to change orientation or to set the spreadsheet to fit on one page
2	Changing Margins	FILE menu, PAGE SETUP Command, MARGINS tab to change the margins or center the spreadsheet on the page
3	Headers and Footers	FILE menu, PAGE SETUP command, HEADER/FOOTER tab. You can use one of the preset headers or footers by clicking on the drop-down menu or create your own by clicking on CUSTOM
4	Previewing Your Worksheet	It's especially important in Excel to preview your spreadsheet before printing it, because in normal view what you see is not always what you get. To preview your spreadsheet, click on the PRINT PREVIEW tool or go to the VIEW menu, and choose the PRINT PREVIEW command.
5	Printing Your Worksheet	FILE menu, PRINT command—Note that you can print just a selection, a worksheet or and entire workbook.

## Practice Exercise #5

Click on the Tab entitled Candy and follow the directions as set forth below:

1. Go into Print Preview to view your worksheet.
2. Change the orientation to landscape.
3. Tell the system to print the sheet on one page only.
4. Change the margins to .25" on the left and right sides.
5. Center the page horizontally as well as vertically.
6. Add a Header with your name in the left section, the text "Halloween Candy" in the middle section, and the date and time in the right section.
7. Save changes to your worksheet.
8. Go into Print Preview and view your worksheet.

