Microsoft Excel 2010

Madison County Schools

ICT II

Lesson 1

Introduction to Excel 2010

Lesson 1 Objectives

- ✓ Identify key terminology used with spreadsheet applications.
- ✓ Identify the basic components of a spreadsheet application screen.
- ✓ Demonstrate the use of basic spreadsheet format commands.

Madison County School District

ICT II

The Microsoft Excel 2010 Program

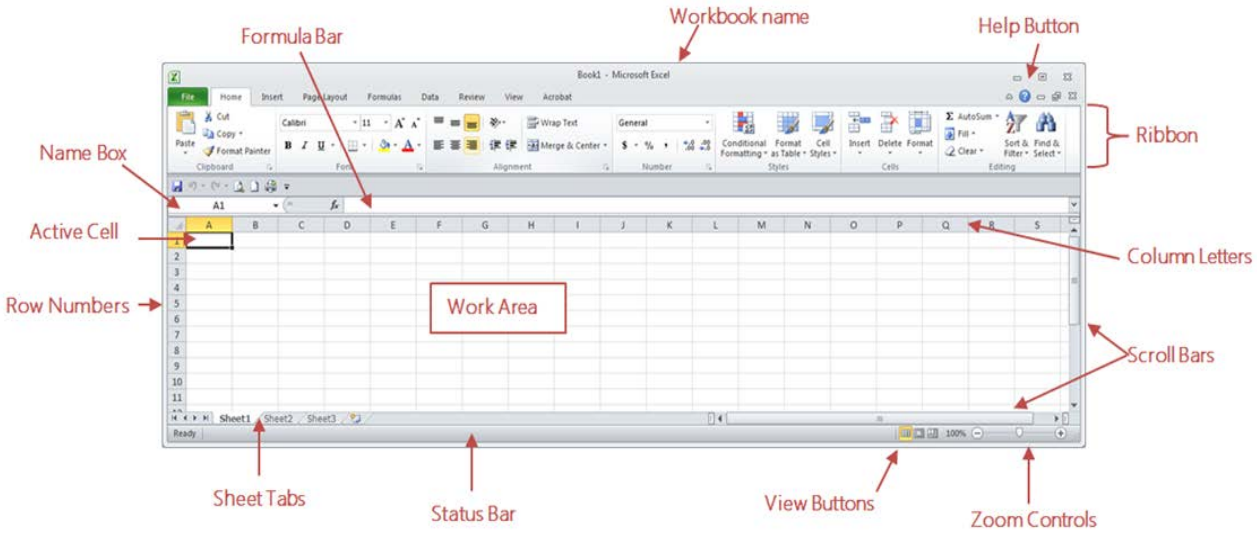
Microsoft Office Excel 2010 (or Excel) is the **spreadsheet** program in Microsoft Office 2010. A spreadsheet is a grid of rows and columns in which you enter text, numbers, and the results of calculations. The purpose of a spreadsheet is to solve problems that involve numbers. The primary advantage of computer spreadsheets is their ability to complete complex and repetitious calculations quickly and accurately.

In Excel, a computerized spreadsheet is called a worksheet. The file used to store these worksheets is called a workbook. Usually, workbooks contain a collection of related worksheets.

Excel 2010 has the same basic parts as all Office 2010 programs, such as the title bar, the Quick Access Toolbar, the Office Button, the Ribbon, and the Status Bar. Excel has additional parts specific to the functions of the program.

Identify Parts of the Excel Program Window

Study the screen shot of the Excel program window below. Use this information to complete the **Excel Program Window Worksheet**. It is important that you be able to identify the basic parts of the Excel window, as they will be referenced in many of the activities you will complete in this unit.

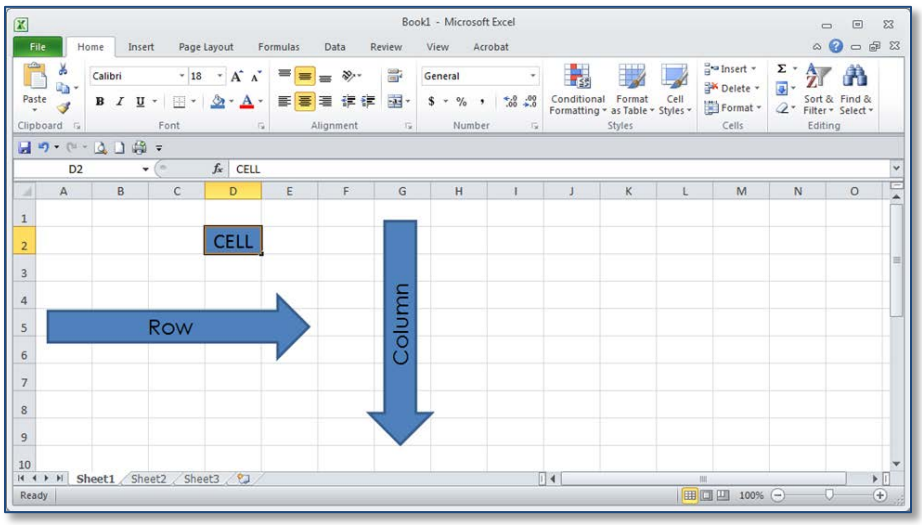


When Excel starts, the program window displays a blank workbook with a default workbook name on the title bar (Book1), which includes three (3) blank worksheets. These worksheets are also given default names (Sheet 1, Sheet 2, and Sheet 3). The worksheet displayed in the work area is the active worksheet.

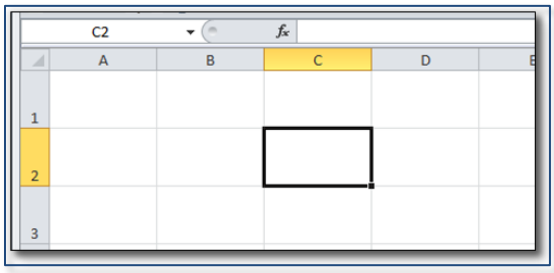
*Before you begin working in a new Excel workbook, you should save it in the file location of your choice with a descriptive file name using the **Save As** command (accessed from the **File** menu).*

The Parts of the Worksheet

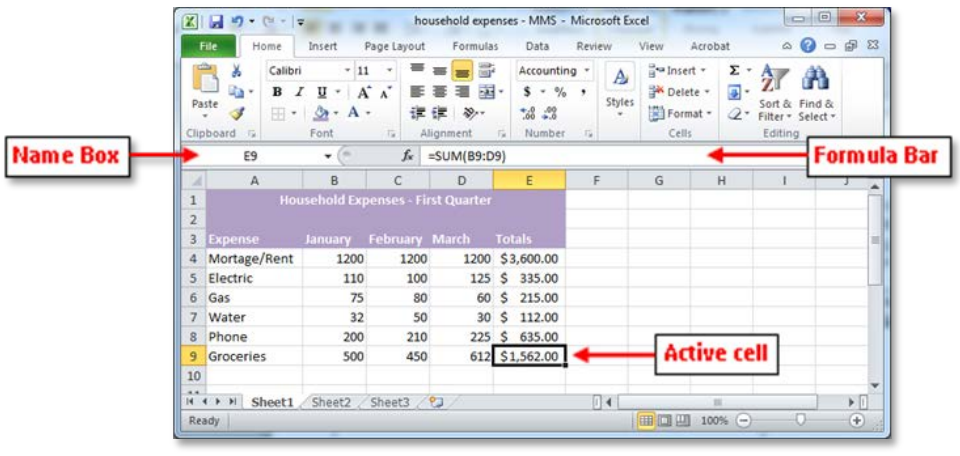
Most of the Excel window is filled with the worksheet (the gridded **work area**), which will contain your data and calculations. Much like a table in Microsoft Word, a worksheet contains columns, rows, and cells.



- Columns run vertically in the worksheet, and are identified by column letters at the top of the worksheet.
- Rows run horizontally, and are identified by row numbers on the left side of the worksheet.
- A cell is the intersection of a row and a column.
- The cell in the worksheet in which you can type/edit data is called the active cell. It is distinguished from the other cells by a dark border. (*The cell with the dark border in the illustration is the **active cell**.*)



- Each cell is identified by a unique cell reference, which is formed by combining the cell's **column letter** and **row number**. (*In the illustration to the right, the **active cell**, which intersects at **column C** and **row 2**, has the **cell reference** C2.*)
- The Name Box (located to the left below the ribbon) displays the **cell reference** of the **active cell**.
- If a cell contains a value calculated with a formula (an equation that uses other values contained in the worksheet), the **formula** is displayed in the Formula Bar, which is to the right of the **Name Box**.
  *In the illustration below, the **Formula Bar** displays the **formula** contained in the active cell (D5).*
- If the cell does not contain a formula, the ***value*** that has been entered into the cell appears in the Formula Bar. If a cell does contain a formula (which is then displayed in the Formula Bar), the **calculated value** (or the result of the formula) is normally displayed in the **cell itself**.



Excel Activity - Lesson 1

Step by Step:

The following activity illustrates how to complete basic tasks within an existing Excel worksheet. In this worksheet, the percentages of people using the top five Internet search engines in July and August 2005 are provided, along with the change in percentages from July to August.

What you do:	*What happens:*
1. Open **Microsoft Office Excel 2010**, if you haven't already.	
2. Click on the **File Menu**, and then click **Open**. **3.** Navigate to the **Documents** library, and double click on the **Excel** folder to Open it. **4.** Double Click on the L1 Search Engines data file to open it.	The **Open** dialog box appears, and you will see your libraries and folders created The workbook will appear in the Excel program window. NOTE: If you do not have an Excel Folder created, or your data files are located somewhere else, locate your data file, and double-click to open it.
5. Click on the **File Menu,** and choose **Save As.** **6.** Save the file as Search Engines *Your Name Block#.xlsx* in your Excel folder (or other location depending on where your teacher wants you to save your data files.) **7.** Click Save.	NOTE: Be sure to save often as you work using the regular **Save** command.
8. Use your mouse to click in cell **A1** of the worksheet. **9.** On your keyboard, press in turn each of the following: **Enter**, **Tab**, **Page Down**, **Page Up**, **Home**, **Ctrl+End**, **Ctrl+Home**, and **directional arrow keys**, noticing how the active cell shifts in each instance.	Notice that the cell reference appears in the **Name Box** and the text value contained in the cell appears in the **Formula Bar.**
10. On the **Ribbon**, click the **Home** tab, if the tab is not already active. In the **Editing** group, click the **Find & Select** button to open a menu of commands, and then click **Go To**.	The **Go To** command is useful when you know the cell reference of the cell you want to move to. It is particularly helpful when working with a spreadsheet so large that you cannot see all parts of it at once.
11. In the **Reference box**, type **G7**. Click **OK**.	Notice that cell G7 is a calculated value – the formula used to calculate the value is displayed in the Formula Bar. TIP: You can also open the **Go To** dialog box using the shortcut keys **CTRL + G** or by pressing **F5**.

Working with Ranges

Sometimes you will need to work on more than one cell at a time. A group of cells is called a **range**. A range is identified by its **range reference**, which is the cell reference of the cell in the upper-left corner and the cell reference of the cell in the lower-right corner, separated by a colon. An example of a range would be A2:F8.

To select an adjacent range (a range in which all cells touch each other and form a rectangle), simply click the cell in one corner of the range, drag the mouse pointer to the cell in the opposite corner of the range, and release the mouse button. *The selected range of cells should be shaded, with a dark border around the cells.*

To select a range of cells which are non-adjacent, select the first cell or range of cells, and press the CTRL key as you select additional cells or ranges of cells you want to include.

Step by Step Continued:

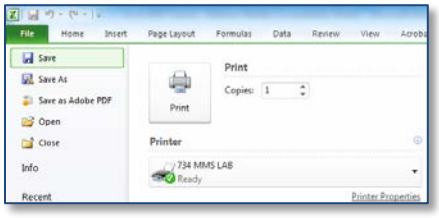
What you do:	*What happens:*
12. Click in cell E7. **13.** Press and hold the left mouse button as you drag the pointer down and to the right until G11 is selected, then Release the mouse. **14.** Click in cell E7, then hold down the CTRL key, and click in cell F9. Keep holding down the CTRL key and click in cell F11.	The range E7:G11 is selected – you can tell this by the shaded cells and dark border around this group of cells. The non-adjacent cells E7, F9 & F11 are selected. Note: The first cell in a range or the last cell selected in a non-adjacent group is not shaded blue, but still has the dark border around it letting you know it's selected.

Entering Data Into Cells

- You may enter or edit data in the active cell. To enter data, type the text, numbers, or formula in the active cell. Then press the Tab or Enter key, or click on the Enter button on the Formula Bar.

- To edit data that's already in the active cell you select the data in the Formula Bar, or double-click directly in the cell, and then make your changes.
- You may use the Delete or Backspace keys to remove all data from a cell.
- If you decide not to enter the data you typed or not keep an editing change, you may cancel by hitting the ESC key, or clicking on the Cancel button on the Formula Bar. If you change your mind after you have already entered the data in the cell, you may use the Undo button on the Quick Access Toolbar.

Step by Step Continued:

What you do:	*What happens/Notes:*
15. Click in cell E2 to make it active. **16.** Type today's date in the cell and press Enter. **17.** Click in cell E1. Select the text in the Formula Bar. Change the cell value to your own name and block (*for example*, John Doe Block 3). Press the enter key or click on the Enter button on the Formula Bar. **18.** Click in cell H1. Type the text "ICT II". Hit the ESC key or click on the Cancel button on the Formula Bar to cancel the entry. Save your changes.	The date is entered in cell E2 Your name and block is entered in cell E1 (If you did not cancel before you *entered* the data, use the Undo button to reverse the change.)
19. On the Ribbon, click the Insert tab. **20.** In the Text group, click the Header & Footer button and then click Go To Footer (in the Navigation group).	Notice that you have a new item on the Ribbon – Header & Footer Tools. This is only active when you are working in the Header or Footer.
21. Click in the box at the left in the footer area & type your name and block.	
22. Click in the box in the center of the footer area. With the Header & Footer Tools showing on the ribbon, locate the Header & Footer Elements group, and click on File Name.	A code, &[File], for the name of the file you are working on is placed in the center section of the Footer.
23. Click in the box at the right in the footer area. Click on Current Date in the Header & Footer Elements group to insert the date.Save your changes.	A code, &[Date], for the current date is placed in the center section of the Footer.
24. Click anywhere in the (gridded) worksheet area to exit the header/footer, then click on the Normal view button *(the first of the three View buttons on the right side of the Status Bar*) to resume "normal" view of the worksheet. Press <CTRL> <HOME> to make cell A1 the active cell.	
25. Click on the File Menu, then choose Print.	You will see a preview of the worksheet to and printing options
26. When you are ready to print, check to make sure you are printing one copy of the worksheet to the *Room#* MMS Printer (or click the File Menu to return to your worksheet if you are told not to print). Close the file.	

Excel On Your Own Project 1A – Recipes

The following activity is an example of how to enter data to create a simple Excel worksheet.

Your science class is studying the conversion of different units of measure. Your teacher has asked you to search the Internet for cookie and brownie recipes. She asks you to type up the recipes, specifying the units of measurement, so that you can distribute them to your classmates (along with your tasty samples) for a unit of measurement conversion activity. You decide to type them up in Microsoft Excel.

Directions	Points Worth	Points Earned
1. Open the data file OYO Recipe from the Excel folder located in the Documents Library (or wherever your data files are located). 2. Save the file to the Excel folder in the Documents Library using the name OYO Recipes Your Name Block#. Be sure to save your work often!	5	
3. Enter the following data, exactly as shown, into the cells indicated: A3: RECIPES A6: Chocolate Chip Cookies A8: INGREDIENTS B8: AMOUNT C8: MEASUREMENT A20: Blondie Brownies A22: INGREDIENTS B22: AMOUNT C22: MEASUREMENT	25	
4. Complete the "Ingredients" columns with the ingredient names, the "Amount" columns with the numeric amounts, and the "Measurement" columns with the units of measurement, by keying in the information found on the back of this rubric.	25	
5. *As you examine your typed recipes before baking your samples, you realize that you listed some of the measurements incorrectly. You also decide to make a substitution.* Correct the recipes by editing the following cell values as indicated: C10: teaspoon A11: butter B17: 2 C24: tablespoon B27: 2 B29: 1/8	25	
6. Add a footer to your document from the Header & Footer Button found on the Insert Ribbon. Enter your footer information (Name/Block at the left, File Name in the center, and Current Date at the right). *Remember to use the buttons in the Header & Footer Elements group to enter the File Name and Current Date.* 7. Save the worksheet.	10	
8. Click on the File Menu, then click Print to preview the worksheet. Check the worksheet carefully (check for footer, fits on one page etc.) Follow your teacher's instructions for grading, submitting and/or printing the assignment. 9. Close the file.	10	
Grade	100	

The *Chocolate Chip Cookies* recipe calls for:	The *Blondie Brownies* recipe calls for:
• 2 cup flour • 1 tablespoon baking soda • ½ cup margarine • ¼ cup white sugar • ¾ cup brown sugar • 1 teaspoon vanilla extract • 3 ounces instant vanilla pudding • 2 large eggs • 1 cup chocolate chips	• ½ cup shortening • 2 cup milk • ½ cup brown sugar • 1 large egg (NOTE: 1 is quantity, large is amount) • 1 cup flour • ½ teaspoon baking powder • ½ teaspoon salt • 1 teaspoon vanilla extract • ½ cup chopped walnuts

Lesson 2

Changing the Appearance of a Worksheet

Lesson 2 Objectives

- ✓ Modify worksheet data.
- ✓ Structure and format data in a worksheet.

Madison County School District

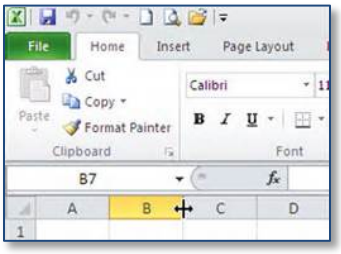
ICT II

Changing the Appearance of a Worksheet, Part I

Data in a worksheet should not only be accurate, but should also be easy to read and visually appealing.

Changing the Size of the Cell

- Sometimes the data you enter in a cell does not fit in the column.
  - Text that fits in the cell is displayed. The rest is stored but hidden if the next cell contains data.
  - Text that does not fit in the cell extends into the next cell, if that cell is empty.
  - Numbers are converted to a different – shorter – numerical form (for example, long numbers change to exponential form).
  - Numbers (or other data) that do not fit in the cell are shown as a series of number signs (######).
- To **resize the width of a column**:
  - Place the mouse pointer on the right edge of the column heading (column letter displayed at the top of the Excel window) until the pointer changes to a double-headed arrow.
  - Click and drag to the right or left to make the column the width that you want.
  - A precise column width can be specified using the ***Column Width*** *dialog box*, accessed by clicking the **Format** button in the **Cells** group of the **Home** tab.



- You may also **resize the height of a row**:
  - Place the mouse pointer on the bottom edge of the row heading (row number displayed at the left of the Excel window) until the pointer changes to a double-headed arrow.

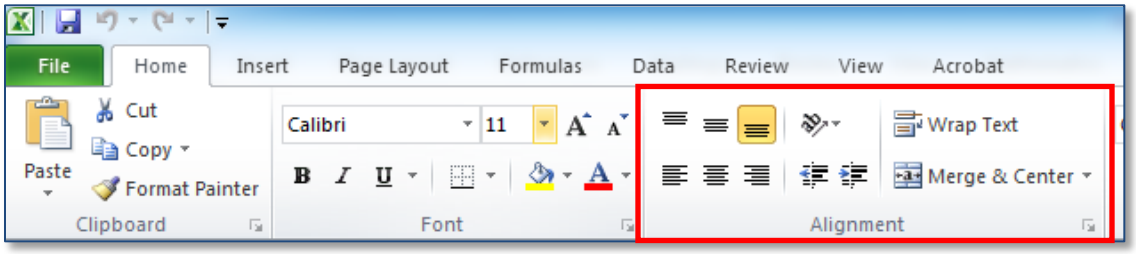
  - Click and drag to the up or down to make the row the height that you want.
  - A precise row height can be specified using the ***Row Height*** *dialog box*, accessed by clicking the **Format** button in the **Cells** group of the **Home** tab.
- Each column of a worksheet should be wide enough to show the longest entry in its entirety, but no wider than necessary. Autofit determines the best width for a column or the best height for a row, based on its contents.
  - Place the mouse pointer on the right edge of the **column heading** (to **autofit** the column width) or the bottom edge of the **row heading** (to **autofit** the row height) until the pointer changes to a double-headed arrow, and double-click.

Positioning the Data within a Cell

You can position data within a cell in a variety of ways. These options are all located in the Alignment group on the Home tab. Unless you specify otherwise, text you enter in a cell is lined up along the bottom-left side of the cell, and numbers you enter are lined up along the bottom-right side of the cell. However, you can select a different horizontal and/or vertical alignment for any cell.

- Alignment specifies where data is lined up within a cell.
  - Horizontal alignments are left, centered, or right.
  - Vertical alignments are top, middle or bottom.
  - By default, Excel left-aligns all text and right-aligns all numbers.
- Indent changes the space between the cell border and its content, moving text several places to the right or left.
- Orientation rotates cell contents to an angle or vertically.
- Wrap Text moves data to a new line when the cell is not wide enough to display all the contents.
- Merge combines multiple cells into one cell.
- Merge & Center combines several cells into one cell and centers the data in the merged cell.

*The selection of the Home tab in the illustration below shows the Alignment group. All the positioning buttons are located in this group. The top three **alignment** boxes affect the vertical alignment; the bottom three boxes, the horizontal alignment.*

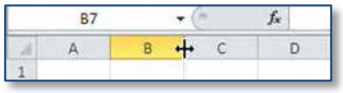


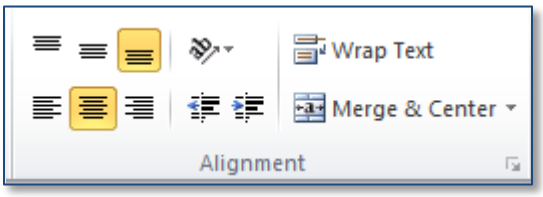
Excel Activity - Lesson 2.1

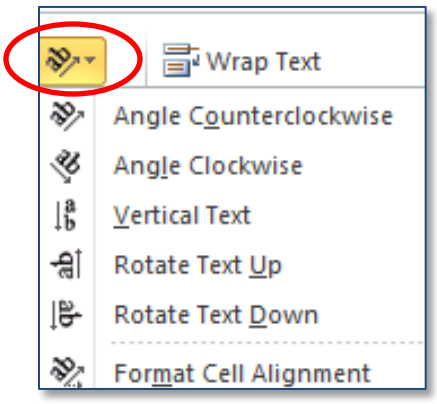
Step by Step Part 1:

The following activity illustrates how to change the appearance of a worksheet to make it easier to read and more visually appealing.

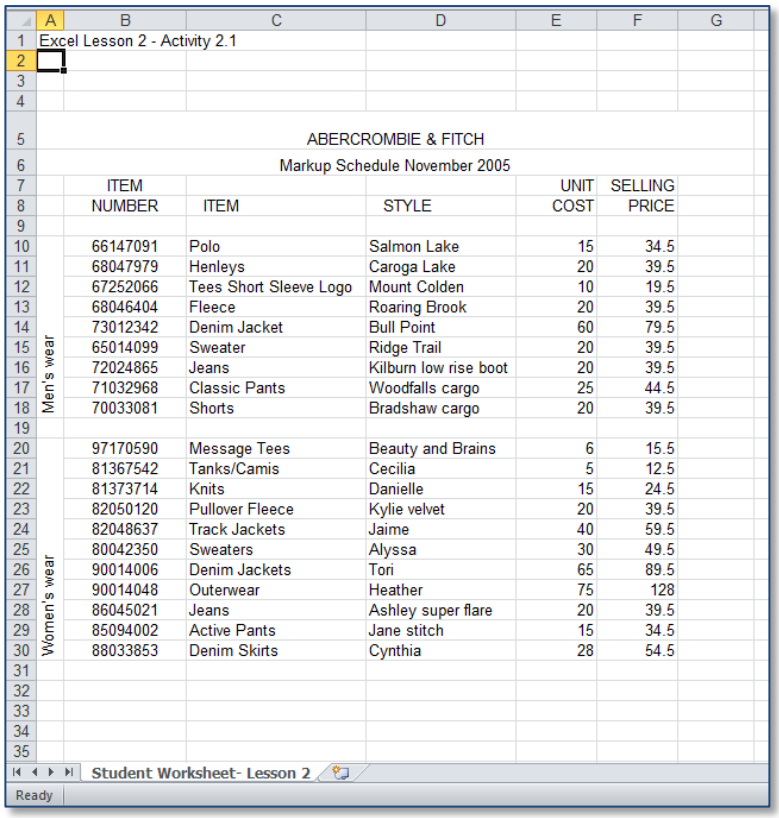
Abercrombie & Fitch is one of the most successful specialty clothing retailers in the world, targeting high school and college students across the globe. They purchase their products from quality manufacturers and then sell them to consumers at a huge markup. ***This worksheet shows the company's cost for merchandise (unit cost) and its consumer selling price.***

What you do:	*What happens:*
1. Open **Excel**, if you have not already done so. **2.** Click the **File Menu**, and then click **Open**. **3.** Navigate to the **Documents** library, and double click on the **Excel** folder to Open it. **4.** Open the L2Abercrombie data file. **5.** Click **Save As** (from the **File** menu), and save the workbook as Abercrombie *Your Name Block#.*	
6. Place the mouse pointer on the right edge of the **column B heading**. **7.** Click and drag to the right until the ScreenTip reads **Width: 14.00 (103 pixels)**. Release the mouse button.	The pointer changes to a double-headed arrow. 
8. Place the mouse pointer on the right edge of the **column C heading**. **Double-click** the right edge of the column heading. **9.** **Autofit** column D by **double-clicking** on the right edge of the **column D heading**.	Column C widens so that you can see all of its contents. Like with column C, you should now be able to see all of the contents in column D. The Excel program has **Autofit** the column to best fit its contents.
10. **Select** both **columns E and F**. You want to make these columns the same width. **11.** On the Ribbon, click the **Home** tab, and locate the **Cells** group. **12.** Click the **Format** button, and then click **Column Width.** **13.** In the **Column Width** box, type **9.00**. Click **OK**.	The Column Width dialog box appears. The column widths change to 9.

What you do:	*What happens:*
14. Place the mouse pointer on the bottom edge of the **row 5 heading**. **15.** Click and drag down until the ScreenTip reads **Height: 24.00 (32 pixels)**. **16.** **Select row 6**. On the Ribbon, click the **Home** tab, if it is not already selected. Click on the **Format** button in the **Cells** group, and then click **Row Height**. **17.** In the **Row Height** box, type **16.50**. Click **OK.**	The pointer changes to a double-headed arrow. The Row Height dialog box appears. The row height changes.
18. **Select** the **range B7:B30.** **19.** On the **Home** tab of the Ribbon, locate the **Alignment** group. **20.** Click the **Center** button to horizontally center the text in the range of cells. **21.** Select the **range E7:F30**. In the **Alignment** group, click on the **Align Text Right** button.	 The text in this range of cells becomes aligned to the right.
22. Select cell **C8**. In the **Alignment** group, click the **Increase Indent** button. **23.** Select cell **D8**, and **Increase Indent** for this cell as well.	 The contents of cells **C8** & **D8** will shift slightly to the right.
24. Select the **range A5:G5**. From the **Alignment** group, click on the **Merge & Center** button. **25.** **Merge & Center** the cells in the ranges (one range at a time) **A6:G6, A10:A18,** and **A20:A30**. **26.** **Select A1:C1**. Click on the **down arrow** to the right of the **Merge & Center** button. Choose **Merge Across**.	 Cells **A5** through **G5** are combined into one cell, and the title Abercrombie and Fitch is centered in the merged cell. The activity information in cell A1 extends into cell B1. We want to combine the two cells, but do not want to center the text, so we will choose a different merge option.

What you do:	*What happens:*
27. Select cell A10, which now shows as a large cell (remember, it was merged with the cells below it). From the **Alignment** group, click on the **Orientation** button and choose **Rotate Text Up**. **28.** Select cell A20. Click on **Orientation** and then **Rotate Text Up**.	A menu appears showing the most common orientations – you can click on **Format Cell Alignment** at the bottom of this list to specify other orientations. 
29. Autofit column A. **30.** Save the worksheet.	Notice how both "Men's Wear" and "Women's Wear" now both read **vertically**. **We will resize these later**.

Your worksheet should look similar to the one pictured below:



	A	B	C	D	E	F	G
1		Excel Lesson 2 - Activity 2.1					
2							
3							
4							
5			ABERCROMBIE & FITCH				
6			Markup Schedule November 2005				
7		ITEM			UNIT	SELLING	
8		NUMBER	ITEM	STYLE	COST	PRICE	
9							
10	Men's wear	66147091	Polo	Salmon Lake	15	34.5	
11		68047979	Henleys	Caroga Lake	20	39.5	
12		67252066	Tees Short Sleeve Logo	Mount Colden	10	19.5	
13		68046404	Fleece	Roaring Brook	20	39.5	
14		73012342	Denim Jacket	Bull Point	60	79.5	
15		65014099	Sweater	Ridge Trail	20	39.5	
16		72024865	Jeans	Kilburn low rise boot	20	39.5	
17		71032968	Classic Pants	Woodfalls cargo	25	44.5	
18		70033081	Shorts	Bradshaw cargo	20	39.5	
19							
20	Women's wear	97170590	Message Tees	Beauty and Brains	6	15.5	
21		81367542	Tanks/Camis	Cecilia	5	12.5	
22		81373714	Knits	Danielle	15	24.5	
23		82050120	Pullover Fleece	Kylie velvet	20	39.5	
24		82048637	Track Jackets	Jaime	40	59.5	
25		80042350	Sweaters	Alyssa	30	49.5	
26		90014006	Denim Jackets	Tori	65	89.5	
27		90014048	Outerwear	Heather	75	128	
28		86045021	Jeans	Ashley super flare	20	39.5	
29		85094002	Active Pants	Jane stitch	15	34.5	
30		88033853	Denim Skirts	Cynthia	28	54.5	
31							
32							
33							
34							
35							

Student Worksheet- Lesson 2

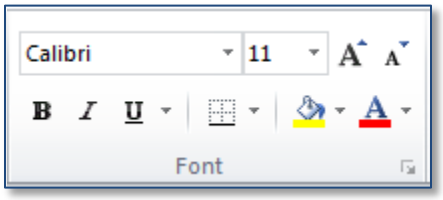
Ready

Changing the Appearance of a Worksheet, Part 2

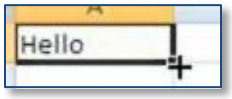
Changing the Appearance of a Cell

To help make information in a worksheet easy to read and visually appealing, or to create a specific look and feel for the worksheet, you can make changes in font, size, color, and style.

- Font is the design of text (the default font is *Calibri*)
- Font size determines the height of characters, as measured in points (the default font size is 11).
- Font styles are the features (such as bold and italics) that can add emphasis to text.
- Changing font color (or the color of the text) is another way to make text stand out.



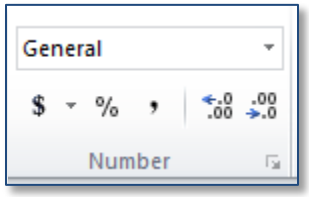
- Fill color is the background cell color behind the text (the default is white, but can be changed to accentuate certain cells).
- Cell borders are lines around the edges of a cell.
- The Format Cells Dialog Box provides access to all of the cell formatting options available on the ribbon, as well as some additional options, and can be accessed by clicking on the *Dialog Box Launcher* in the Font, Alignment, or Number groups.
- A cell style is a combination of formatting characteristics which can be applied simultaneously to the contents of a cell, saving you time.
- Filling copies a cell's contents and/or formatting into an adjacent cell or range.
- The fill handle appears in the lower-right corner of the active cell and can be used to fill adjacent cells.



Changing Number Formats

Number Formats change the way numbers looks in a cell. Along with the **Text** format, which displays text and numbers exactly the way they are typed, there are several number formats. Changing the format of a number does not change the actual *value* stored in the cell, but only its *appearance*. The actual *value* of the active cell will always be shown in the **Formula Bar**.

- The **number format** is changed in the **Number** group on the **Home** tab of the Ribbon.



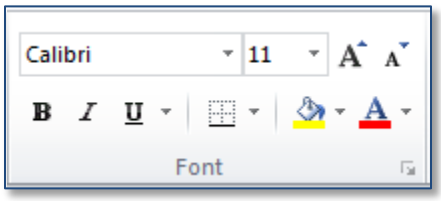
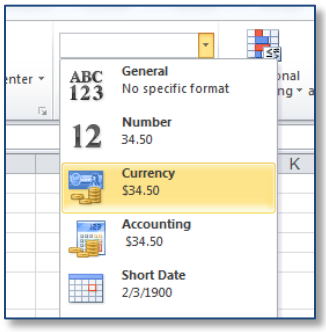
Number Formatting Table

Format	Example	Description
General	1000	The default number format; displays numbers as typed. If the number doesn't fit in the cell, decimals are rounded, or the number is converted to scientific notation
Number	1000.00	Displays numbers with a fixed number of places to the right of the decimal point; the default is two decimal places
Currency	$1,000.00	Displays numbers preceded by a dollar sign with a thousands separator and two decimal places
Accounting	$1,000.00 $ 9.00	Displays numbers in the Currency format but lines up the dollar signs and decimals points vertically within a column
Date	6/8/10	Displays text and numbers as dates
Time	7:38 PM	Displays text and numbers as times
Percentage	35.2%	Displays numbers with two decimal places followed by a percent sign
Fraction	35 7/8	Displays decimal numbers as fractions
Scientific	1.00E+03	Displays numbers in exponential (or scientific) notation
Text	66147091	Text format cells are treated as text even when a number is in the cell. The cell is displayed exactly as entered.
Special	79410-1234 (503) 555-4567	Displays numbers with a specific format: zip codes, zip+4 codes, phone numbers, and Social Security numbers
Custom	000,00.00	Displays data in the format you create, such as with commas or leading zeros

Excel Activity - Lesson 2.2

Step by Step Part 2:

In this part of this activity, you will use basic formatting tools to make the worksheet easier to read and more visually appealing.

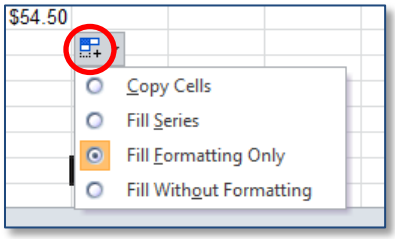
What you do:	*What happens:*
1. Open **Excel**, as well as the **Abercrombie** *Your Name Block#* file, if necessary. *It should be located in your **Documents** Library in the **Excel Folder**, unless your teacher has you save your files somewhere else. This is a continuation of Excel Activity Lesson 2.1.*	
2. Select the range **A5:A6**. On the Home tab, in the **Font** group, click on the **arrow** next to the **Font box**. Choose **Berlin Sans FB Demi**.	A menu appears, listing the fonts available on your computer.
3. Select cell **A5**. In the **Font** group, click on the **arrow** next to the **Font Size** box. From the menu of sizes, choose **18**.	The size of the font increases to 18 points.
4. In the **Font** group (with cell A5 still selected), click on the **arrow** next to the **Font Color** button to display a gallery with a palette of colors. **Click** on **Red, Accent 2** (in the top row of the Theme colors palette).	When you mouse slowly over the colors in the gallery, ScreenTips will appear naming each color. The color of the font changes to Red.
5. Change cell **A6** to **Font Size 12**.	
6. Select the range **B7:F8**. Apply **Bold** formatting - from the **Font** group.	
7. Select cell **A10**. Hold down the **CTRL** key and click on cell **A20**. Apply **Bold** formatting and change to **Font Size 18**. **8.** **Autofit column A** to adjust the column width to best fit the changed cells.	NOTE: the CTRL key allows you to select non-adjacent cells.
9. Select cell **E10**. In the **Number** group on the Home tab, locate the **Number Format** box, and click on the **arrow** next to it. **10.** Click **Currency**. The number in cell **E10** changes to include a **dollar sign** and **two decimal places**, which is standard **Currency** number format.	A menu of number formats appears. 

Using the Fill Handle

The **Fill Handle** can be used to copy a cell's contents and/or formatting to an adjacent cell.

- When the mouse is moved over the small square (fill handle) showing in the bottom right of the active cell, it changes to a black cross.

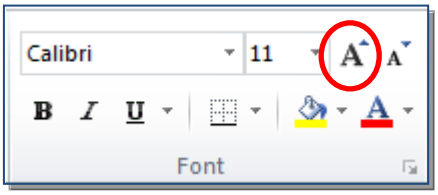
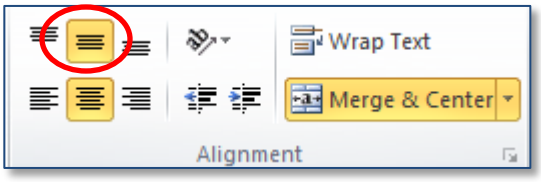
- While the black cross is showing, click down and drag the fill handle over the cells you want to fill with the same content and/or formatting as the active cell.
- After you release the mouse, the **AutoFill Options** button appears below the filled content.
- Choose whether to Copy Cells, Fill Series, Fill Formatting Only, or Fill Without Formatting.



Step by Step Part 2 - Continued:

We are going to copy, or fill, the number formatting to the other number cells in our worksheet. Later in this tutorial, you will copy formulas (contents) from one cell to another.

What you do:	*What happens:*
11. Mouse over the **fill handle** (bottom right corner) of the active cell (**E10**), until it changes to a thin black cross. **12.** Click and hold the left mouse button and drag down over **E10:E30**. Release the mouse. **13.** Click on the **arrow** in the **AutoFill Options button** that appears, and select **Fill Formatting Only**. **14.** Select cells **F10:F30**. With the cells selected, choose **Currency** Format.	 The format that was in Cell E10, currency, is has now been applied to the rest of the numbers in column E. **Currency** format is applied to all the cells that were selected. This is another way to apply formatting to a range of cells.
15. Select the range **A7:G8**. In the **Font** group, locate the **Fill Color** button, and click on the **arrow** next to it. **16.** Click on **Light Green** (located in the Standard Colors palette). **17.** Select the range **A9:G18**. Using the **Fill Color** button, change the background fill color to **Blue, Accent 1, Lighter 40%**. **18.** Select the range **A19:G30**. Using the **Fill Color** button, change the background fill color to **Red, Accent 2, Lighter 40%**.	A gallery appears with a palette of colors.  The backgrounds of the cells change to green. The backgrounds of the cells change to blue & red respectively.

What you do:	*What happens:*
19. Select the range **B10:G30**. Use the **Grow Font** button or the **Font Size** button to change to **font size 11**. **20.** **Autofit columns C** and **D** so that all cell contents are showing. **21.** Select **column G**. Change the **column width** to **2.00**. **22.** Select **cell A10**. Use the **Font Color** button to change the **font color** to **Red, Accent 2, Darker 25%**. **23.** Select cell **A20**. Use the **Font Color** button to change the **font color** to **Blue, Accent 1, Darker 50%**. **24.** Select cells **A10** and **A20** (remember to use the **CTRL** key to select these non-adjacent cells at the same time). Click on the **Middle Align** button, located in the **Alignment** group on the **Home** tab.	 

Your worksheet should look similar to the one pictured below:

Excel Lesson 2 - Activity 2.1

ABERCROMBIE & FITCH

Markup Schedule November 2005

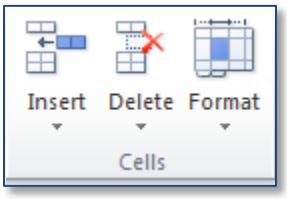
	ITEM NUMBER	ITEM	STYLE	UNIT COST	SELLING PRICE
Men's wear	66147091	Polo	Salmon Lake	$15.00	$34.50
	68047979	Henleys	Caroga Lake	$20.00	$39.50
	67252066	Tees Short Sleeve Logo	Mount Colden	$10.00	$19.50
	68046404	Fleece	Roaring Brook	$20.00	$39.50
	73012342	Denim Jacket	Bull Point	$60.00	$79.50
	65014099	Sweater	Ridge Trail	$20.00	$39.50
	72024865	Jeans	Kilburn low rise boot	$20.00	$39.50
	71032968	Classic Pants	Woodfalls cargo	$25.00	$44.50
	70033081	Shorts	Bradshaw cargo	$20.00	$39.50
Women's wear	97170590	Message Tees	Beauty and Brains	$6.00	$15.50
	81367542	Tanks/Camis	Cecilia	$5.00	$12.50
	81373714	Knits	Danielle	$15.00	$24.50
	82050120	Pullover Fleece	Kylie velvet	$20.00	$39.50
	82048637	Track Jackets	Jaime	$40.00	$59.50
	80042350	Sweaters	Alyssa	$30.00	$49.50
	90014006	Denim Jackets	Tori	$65.00	$89.50
	90014048	Outerwear	Heather	$75.00	$128.00
	86045021	Jeans	Ashley super flare	$20.00	$39.50
	85094002	Active Pants	Jane stitch	$15.00	$34.50
	88033853	Denim Skirts	Cynthia	$28.00	$54.50

Student Worksheet- Lesson 2

Ready

Inserting and Deleting Rows, Columns, and Cells

You may decide that you need to add another **row** or **column** to store more data or to visually separate contents for easier viewing. Likewise, you may find that you need to remove an empty row or column or even a row or column of data that is no longer needed. Sometimes, you may need to insert or delete specific cells.



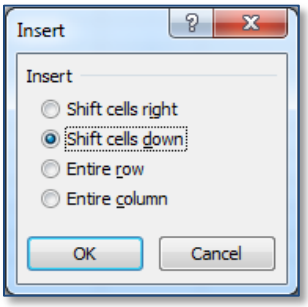
The **Cells** group, on the **Home** tab, contains the buttons for completing these tasks.

- Insert a Row - Click the row number to select the row where you want the new row to appear, and then click on the Insert button in the Cells group. *This adds a blank row, shifting the existing rows down*. You may also **Right Click** on the row number to insert a blank row above.
- Insert a Column - click on the column letter to select the column where you want the new column to appear. Click on the Insert button in the Cells group. *This adds a blank column, shifting existing columns to the right.*
- Delete a Row/Column - click on the column letter or the row number of the column or row you want to delete. Then click on the Delete button in the Cells group.
- If you insert or delete a column or row incorrectly, you can use the Undo button to restore the worksheet.

Occasionally, you may omit or duplicate a number as you enter a long column of data. Rather than spend time moving the entire set of data around, it is often easier to insert a cell to make room for the missing data or to delete the cell containing duplicate data.

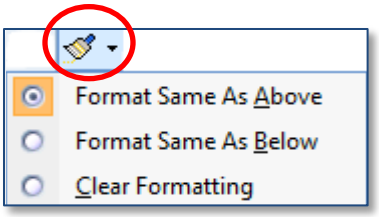
- Insert a Cell - select where you want the new cell to be added. Click on the arrow next to the Insert button in the Cells group, and then select Insert Cells. *The Insert dialog box appears, where you choose whether to shift the data down or to the right.*
- Delete a Cell - select the cell you want to remove and click on the arrow next to the Delete button in the Cells group. Select Delete Cells. The *Delete dialog box appears, where you choose whether to shift the remaining cells up or to the left.*

NOTE: You may also Right Click on a row, column or cell to Insert or Delete rows, columns or cells. A Dialog box, similar to the one to the right, will appear after you choose to either Insert or Delete.



Excel allows you to choose whether to keep the **default formatting** of the new row or column. When you insert a row or column, a **formatting options button** appears.

If you are satisfied by the automatic formatting, you can ignore the button. You can choose, however, to access a list of formatting choices for the new row or column by clicking on the arrow next to the brush button. The choices are: **Format Same As Above**, **Format Same As Below**, or **Clear Formatting**.



Step by Step Part 2 - Continued:

Our worksheet is almost complete! We will now insert and delete rows and columns, and make final formatting changes.

What you do:	*What happens:*
25. Click on the **row 7 heading**.	The entire row is selected.
26. In **Cells** group on the **Home** tab, click on the **Insert** button.	A new, blank row appears as row 7, and the original row 7 now becomes row 8.
27. Click on the **row 20 heading**. Again, click on the **Insert** button.	Notice that this cell is not blank, but shares the formatting of the row above it.
28. Click on the **row 33 heading**. Click on the **Insert** button (in the **Cells** group).	The new row 33 appears with the formatting (red highlighting) as the row above.
29. Click on the **arrow** next to the **formatting options button**. Choose **Format Same As Below**.	The row formatting of the new row 33 disappears, matching the blank row 34 below it.
30. Click on the **formatting options button** again. Choose **Format Same As Above**.	The row formatting returns to the red highlighting like row 32 above it.
31. Click on the **row 3 heading** and, while still holding down the left mouse button, drag down to also **select** the **row 4 heading**. Click on the **Delete** button in the **Cells** group on the **Home** tab.	Both rows **3 and 4** are selected, disappear, and the remaining rows shift up.
32. Click on the **column F heading**. In the **Cells** group, click on the **Delete** button.	Column **F** disappears, shifting the last column to the left.
33. *We do not really want to delete the data in column F.* On the **Quick Access Toolbar**, click the **Undo** button.	Column **F** reappears in the worksheet.
34. Select cell **A4**. Locate the **Styles** group on the **Home** tab. Click the **drop arrow** next to the cell styles to display the *Cell Styles gallery*.	By applying this style, we have simultaneously changed the font, font size, and font color, and added a bottom border.
35. Choose **Heading 1** from the top row of the *Titles and Headings* section of the gallery.	
36. Select the range **A6:G7**. Click on the **arrow** next to the **Borders** button. From the **Borders** list, select **Thick Box Border**.	A heavy black border appears around the range of cells.
37. Select the range **A8:G18**. Click on the **Borders** button itself.	Notice that Excel automatically applies the last border option (**Thick Box Border**) used.
38. Repeat the process in Step 36 to apply the same border to the ranges **A8:A18**, **A19:A31**, and **B19:G31**.	
39. Select cell **A1**, and make it **Bold**. Save your changes.	

Preparing a Worksheet for Printing

- Typographical errors will be a distraction and take away from the professional appearance of your worksheet. You should always use the Spelling command to check the spelling in the worksheet.

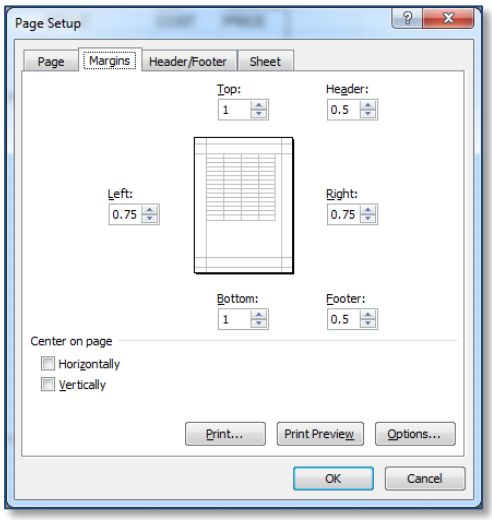
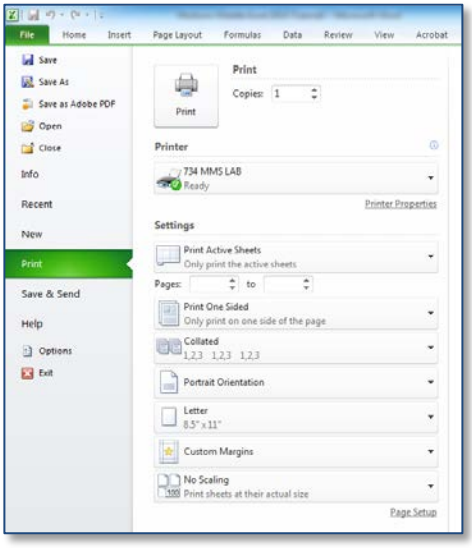
- Keep in mind that a spell checker is not foolproof. It is important to always proofread your worksheet manually to look for errors the spelling checker may have missed.

- In the **Page Setup** group on the **Page Layout** tab, you can set printing options:
  - Margins are the blank spaces around the top, bottom, and sides of a page.
  - Page orientation will be either Portrait (vertically longer) or Landscape (horizontally longer).
  - The print area is a portion of the worksheet selected to be printed. This is useful for large worksheets where you only want to print part of the worksheet.
  - Page breaks (specifying where a page ends and another begins) can be manually set.
  - Print titles are designated rows or columns that print on each page of a multipage printout.

- Additional printing options are located in other groups on the Page Layout tab.
  - Scaling (in the Scale to Fit group) allows you to resize the worksheet to print on a specific number of pages.
  - The Sheet Options group contains options allowing you to show or hide the gridlines and headings as you view the worksheet on the computer screen, as well as on the printed page.

Step by Step Part 2 - Continued:

What you do:	*What happens:*
*Set Print Area allows you to specify which part of the worksheet you would like to print. This is helpful when you have a very large worksheet, but only want to print part of it. If you want to print the **entire** worksheet, you **do not** have to set the print area. We will set the print area just to demonstrate how it is done, not because it is necessary to print! In order to choose the **Set Print Area** option, you must select the desired print area.*	
40. Locate the **Print Area** button in **Page Setup** group on the **Page Layout** tab. **41.** Select the range **A1:G32**. Click on the **Print Area** arrow, and choose **Set Print Area**.	If you click on the **arrow** to the bottom right of the button, you can access the two choices: **Set Print Area** and **Clear Print Area**.
42. In the **Page Setup** group, click on the **Margins** button. **43.** Choose **Custom Margins**. (Click on the **Margins** tab if it is not already selected.) Specify the following margin settings: **Top and Bottom – 1.00**, **Left – .75**, and **Right – .50**	You may choose a preset margin option, or specify the margins to fit your worksheet content. We will set our own custom margins. The **Page Setup dialog box** opens to the **Margins** Tab.

What you do:	*What happens:*
*Notice that while still in the **Page Setup dialog box**, you can preview your printing settings with the new margins, as well as make other Page Setup changes, such as adding a header/footer and changing page orientation.*	
44. Click on the **Print Preview** button in the **Page Setup** dialog box. Click on the **File Menu** to close out of **Print Preview** without printing.	
45. On the **Ribbon**, click the **Insert** tab. In the **Text** group, click the **Header & Footer** button to open the **Header & Footer Tools**, and then click **Go To Footer** (in the **Navigation** group). **46.** Type your **footer** (**name/block at the left, file name in the center, date at the right**). **47.** Exit the header/footer, and then click on the **Normal** view button to resume "normal" view of the worksheet. Press <CTRL> <HOME> to make cell **A1** the active cell.	
48. Click on the **File Menu**, then click **Print**. **49.** You will see a **preview** of the worksheet to the right of the dialog box. Check the worksheet carefully (check for footer, that your worksheet fits one page, etc.) **50.** When you are ready to print, click on the **Print Button**. Print <u>one copy</u> of the worksheet to the **Room#MMS Lab** printer, or whatever printer your teacher tells you to print to, or close Print Preview if you are told not to print, by clicking on the File Menu. **51.** Save your changes and **Close** the file.	The **Print dialog box** appears. 

Your worksheet should look similar to the one pictured below:

Excel Lesson 2 - Activity 2.1

ABERCROMBIE & FITCH

Markup Schedule November 2005

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	73012342	Denim Jacket	Bull Point	$60.00	$79.50
	65014099	Sweater	Ridge Trail	$20.00	$39.50
	72024865	Jeans	Kilburn low rise boot	$20.00	$39.50
	71032968	Classic Pants	Woodfalls cargo	$25.00	$44.50
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	81373714	Knits	Danielle	$15.00	$24.50
	82050120	Pullover Fleece	Kylie velvet	$20.00	$39.50
	82048637	Track Jackets	Jaime	$40.00	$59.50
	80042350	Sweaters	Alyssa	$30.00	$49.50
	90014006	Denim Jackets	Tori	$65.00	$89.50
	90014048	Outerwear	Heather	$75.00	$128.00
	86045021	Jeans	Ashley super flare	$20.00	$39.50
	85094002	Active Pants	Jane stitch	$15.00	$34.50
	88033853	Denim Skirts	Cynthia	$28.00	$54.50

Missy Rhodes - Block 1 Abercrombie rhodes 1 7/2/2013

Excel On Your Own Project 2A – Cell

The following activity is an example of how to organize and format a simple Excel worksheet.

Your parents have told you that you need to reduce your cell phone charges to under $100 a month by December, or they will suspend your cell phone account. They have asked you to examine your charges on the most recent bill and prepare a plan to reduce your phone expenses. To impress your parents with your responsible attitude, you decide to create an Excel worksheet to track your detailed cell phone charges and present your plan to reduce those charges.

Directions	Points Worth	Points Earned
1. Open the data file OYO Cell from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO Cell Your Name Block#. **Be sure to save your work often!**	4	
2. In cell **A1**, type **Cell Phone Bill Details**; change to **font size 14** and apply **bold** formatting.	5	
3. **Merge and center** the range **A1:D1**.	5	
4. Change the **fill color** of cell **A1** to **Blue, Accent 1**.	5	
5. Change the **font color** of cell **A1** to **White, Background 1**.	2	
6. **Center** the contents of the **range B3:C3; apply bold** formatting to the cell.	5	
7. Format the **range C4:D7** in the **Currency** number format with **two decimal places**.	5	
8. Widen **column A** to **17.00**. In cell **A4**, **wrap text** (in the Alignment group on the Home tab).	5	
9. **Middle-align** (this is a vertical alignment option in the Alignment group) the range **B4:D4**.	2	
10. Click on the **row 6 heading**. **Insert a new row**.	5	
11. In cell **A6**, type **Extra Text Message Charges**; **wrap text** in cell **A6**.	5	
12. Change the contents of cell **B3** to: **Minutes / Messages** (be sure to space one time before and after the /).	2	
13. Change the width of **column B** to **9.00**; **wrap text** in cell **B3**.	5	
14. Enter the following values to these cells: **B6 – 209**, **C6 – .05** .	2	
15. Make cell **D5** the active cell. Using the **fill handle**, drag down to copy formatting **from cell D5 to cell D6** (you do not need to use the Autofill options button, but accept the default results).	5	
16. **Middle-align** the range **B6:D6**.	5	

17. **Delete row 2**.	2	
18. Select the **range A2:D2**; apply the cell style **Accent 2**.	2	
19. Select the **range A3:D6**; apply the cell style **40% Accent 1**.	2	
20. Select cell **D7**; apply the cell style **Total**.	2	
21. Select cell **A1**, then: A. Click on the **arrow** next to the **Borders** button and select **More Borders** (the Format Cells dialog box appears). B. Make sure the **Borders tab** is selected within the Format Cells dialog box; change the **color** to **White, Background 1**. C. To the right of the Color drop-down list, locate and click on the button showing a **bottom border**. Click **OK**.	5	
22. Select the **range A2:D2**; click on the **Borders button** itself to apply the same border style set for cell A1 to this range of cells.	*5*	
Examine the data in the worksheet. Determine how you might change your cell phone use habits to reduce the bill to a total of $100 or less.		
23. **Merge across cells A10:C10**. In cell **A10**, type **Plan:** followed by two spaces; then, in a complete sentence(s), describe your specific plan for reducing your cell phone charges. In the Home Ribbon, in the Alignment Group, select **Word Wrap** to wrap the text into the merged cells, AND **resize row 10** to show your entire plan.	10	
24. Add a **footer** to your document from the **Header & Footer Button** found on the **Insert** Ribbon. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right). ***Remember to use the buttons in the Header & Footer Elements group to enter the File Name and Current Date***. Exit the Footer.	5	
25. Save your file. 26. Follow your teacher's instructions for grading, submitting and/or printing the assignment. 27. **Close** the file and exit Excel.		
Grade		

Excel On Your Own Project 2B – Phones

The following activity is designed for you to demonstrate your mastery of skills needed to organize and format a simple Excel worksheet.

Your father, who owns a small business, has decided to provide company cell phones to all of his employees. You have been asking for a new phone for some time. Your father decides to give you the opportunity to earn a new phone by researching the prices and availability of some of the new business phone models at his favorite cell phone store. He has provided you with the following criteria:

- He prefers to purchase phones with either a touch screen or full QWERTY keyboard.
- Because he plans to purchase the phones immediately, he wants to select a phone that has the required quantity of phones currently in stock.
- He wants to purchase a total of 20 phones of the same model.

After collecting information from the phone store, you decide to prepare an Excel worksheet to present the information to your father (you really want that new phone!)

New Cell Phone Model Information – The Cell Phone Shop

Model Name	Quantity In Stock	Price with Service	Style
Apple iPhone 4S	28	$199.99	Touch Screen
Blackberry Bold	18	$299.99	QWERTY Keyboard
HTC Fuze	24	$129.99	QWERTY Keyboard
LG INCITE	39	$179.99	Touch Screen
Motorola MOTO EM330	25	$49.99	Clamshell
Nokia 5800 XpressMusic	29	$179.99	Touch Screen
Nokia E75	32	$149.99	QWERTY Keyboard
Samsung Blue Earth	16	$199.99	Touch Screen
Samsung Propel Pro	26	$129.99	QWERTY Keyboard
Sony Ericsson W350	22	$99.99	Clamshell

Directions	Points Worth	Points Earned
1. Open the data file OYO Phones from the Excel folder located in the Documents Library (or wherever your data files are located). Save the file to the Excel folder in the Documents Library using the name OYO Phones Your Name Block#. Be sure to save your work often!	5	
2. Insert a new column to the left of the existing column A. Change the column width of the new column A to 17.00.	2	
3. Insert another new column between columns B and C.	2	
4. Merge & Center the range A1:F1.	2	
5. Format cell A1 as follows: Aharoni font, size 14, text color standard light green, fill color Blue Accent 1, Darker 25%.	5	
6. Merge & Center the range A2:F2.	2	
7. Format cell A2 as follows: Aharoni font, size 11, fill color yellow.	5	
8. Change the row height of rows 1 and 2 to 24.00.	2	
9. Middle-align cells A1 and A2.	2	
10. Delete row 3.	2	
11. In cells C3 and C4, add the label Quantity (in C3) and in Stock (in C4) for the column C. data.	2	
12. In cell A5, add the text Touch Screen; in cell A8, add the text QWERTY Keyboard.	2	
13. Merge cells for the ranges (separately) A5:A7 and A8:A10.	5	
14. Middle-align and center cells A5 and A8.	2	
15. Center the range C3:D10.	2	
16. Enter the value 20 in cell D5. Fill the contents of cell D5 to cells D6:D10 (accept the default autofill results).	5	
17. Change the column width of columns C and D to 10.00. Change columns E and F to width 9.00.	2	
18. Change the row height of rows 5-10 to 19.50.	2	
19. *Choose the 6 cell phone models that meet your father's criteria from the list provided.* Type the model names, quantity in stock, and retail prices of the 3 touch screen phones in the appropriate columns in rows 5, 6, and 7 (in alphabetical order by model name). Type the model names, quantity in stock, and retail prices of the 3 phones with QWERTY keyboards in the appropriate columns in rows 8, 9, and 10 (in alphabetical order by model name).	10	
20. Indent the contents of the cells in range B4:B10. Autofit column B.	5	
21. Right align E3:E4. Center align F3:F4.	2	

22. Format the range **E5:F10** to **Currency** number format with two decimal places.	5	
23. Format cells **A3:F4** as follows: **bold** with fill color **Dark Blue, Text 2, Lighter 40%, Thick Box Border**.	2	
24. Format cells **A5:A8** as follows: **bold** with fill color **Yellow**, **Thick Box Border** (around each cell separately).	2	
25. Format the range **B5:F7** with fill color **Dark Blue, Text 2, Lighter 80%**.	2	
26. Format the range **B8:F10** with fill color **Light Green**.	2	
27. Apply a **Thick Bottom Border** to the range **B7:F7**.	2	
28. Select the range **A1:F10**. Apply a **Thick Box Border**. Save your work.	2	
29. Add a **footer** to your document from the **Header & Footer Button** found on the **Insert** Ribbon. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right). *Remember to use the buttons in the Header & Footer Elements group to enter the File Name and Current Date*. Exit the Footer.	5	
30. Change the **Orientation** of the page to **Landscape**.	5	
31. Click on **Margins** and change the **Margins** to **Wide.** Choose **Margins** again and choose **Custom Margins**. Mark the box for **Center on Page Horizontally.**	5	
32. **Print Preview**. Check the worksheet carefully (check for footer, margins, etc.)Follow your teacher's instructions for grading, submitting and/or printing the assignment. 33. Save & Close the file.		
Grade	100	

Excel On Your Own Project 2C – Basketball

The following activity is designed for you to demonstrate your mastery of skills needed to organize and format a simple Excel worksheet.

You write for the sports section of your school newspaper. Several students have recently asked for the latest basketball statistics for the Central Conference. Since you have just learned how to use Microsoft Excel, you decide to create an Excel worksheet to present the statistics in next week's issue of the newspaper.

Directions	Points Worth	Points Earned
1. Open the data file OYO Basketball from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO Basketball Your Name Block#. **Be sure to save your work often!**	5	
2. Change the font of the **worksheet title** to **Cambria, size 18**; change the remaining cells that contain data to **Calibri, size 11**.	10	
3. Using the sample worksheet as a reference, **Insert** the missing **rows** and **columns**, and key in the data for those cells. (**Hint**: Do not change the values in the Percentage columns – these should change automatically when you key in the data in the other columns)	15	
4. **Merge / Merge & Center** cells as necessary to get the row and column headings as shown.	10	
5. Change the **number format** in the appropriate cells as needed to display the percentages as shown. (***Hint***: You will need to choose **More Number Formats** from the bottom of the **Number Format** list)	15	
6. Adjust the column widths as follows: **A**: best fit **D**: 5.00 **G**: 5.00 **B**: best fit **E**: best fit **H**: best fit **C**: 5.00 **F**: 5.00	10	
7. Adjust the **vertical** and **horizontal alignment** and/or **orientation** of the text in the cells to match the sample. (**Hint**: you may need to **autofit column A** again after you change orientation)	15	
8. Apply **font color**, **font fill**, **borders**, and **font styles** (i.e. italics, bold), as shown in the sample.	15	
9. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right. Resume "normal" view of the worksheet.	5	
10. **Print Preview**. Check the worksheet carefully (for footer, margins, etc.) Follow your teacher's instructions for grading, submitting and/or printing the assignment. 11. Save & Close the file.		
Grade	100	

- Font colors used include: **Black**, **White**, and **Dark Blue, Text 2.**
- Fill colors used include: **Blue Accent 1, Lighter 80%**; **Red Accent 2, Lighter 80%**; **Olive Green, Accent 3**; **Purple, Accent 4**; **Dark Blue, Text 2, Lighter 40%**; and **Red, Accent 2**.

Central Conference Basketball Standings

		Conference			*All*		
	Team	Win	Loss	Percentage	Win	Loss	Percentage
Eastern	KANSAS Pioneers	7	1	58.333%	18	2	78.261%
	MISSOURI Explorers	5	2	50.000%	15	5	75.000%
	OKLAHOMA Drillers	4	2	44.444%	13	4	72.222%
	IOWA Harvesters	4	5	44.444%	14	8	73.684%
	NEBRASKA Sodbusters	3	5	37.500%	10	11	66.667%
	DAKOTA Badlanders	2	6	28.571%	8	10	61.538%
Western	ARIZONA Saguaros	7	2	58.333%	19	3	79.167%
	UTAH Peaks	6	3	54.545%	17	4	77.273%
	NEW MEXICO Coyotes	1	5	16.667%	16	6	76.190%
	COLORADO Bighorns	3	6	37.500%	14	6	73.684%
	NEVADA Miners	2	5	28.571%	8	10	61.538%
	TEXAS Westerners	0	9	0.000%	6	15	54.545%

Enrichment – The Lemonade Stand

Directions	Points Worth	Points Earned
1. Open Internet Explorer and go to the website: http://www.coolmath-games.com/lemonade/		
2. Open your Excel data sheet, Lemonade Stand from the Excel folder in the Documents Library. Save As Lemonade Stand Your Name Block # in the Excel folder. This worksheet will be used for recording your information.		
3. Before you begin your actual data collection, you might want to experiment with how the lemonade stand runs for a few days. Once you have worked through the 7 days the first time, click on the "Bankrupt!" button to see your results and start the game over.		
4. Run your stand and record your data for 7 days. Record all the decisions you are making in your Excel worksheet. Also record your results at the end of the day.		
5. After the 7th day, click on the "Bankrupt!" button to see your final results. Did you make a profit? Add your **final results** to **column E** of the worksheet in the appropriate cells. If you had a "loss" instead of a profit, color the loss amount red.	10	
Use your Lesson 1 and 2 skills to add interest to the worksheet.		
6. **Merge & Center** the title in Row 1 to center over all of the data columns, change the **Cell Style** to Heading 1, **font size** to 24, **Fill Color** to Standard Yellow. Change the **row height** to 60.00.	10	
7. Find two appropriate **ClipArt** images to add to each end of the yellow title box.	10	
8. **Merge Across** row 2 to match row 1. Do not center the text.	10	
9. Select the range B4:P4. **Rotate** the text counterclockwise.	10	
10. **Merge & Center** A15:D15 then bold the text.	10	
11. **Merge Across** A17:C17, A19:C19, A21:C21, A23:C23	10	
12. Add **Currency** number formatting to all appropriate cells. Use the **Fill Handle** where necessary.	15	
13. Autofit all columns.	10	
14. Add your proper **footer**. Save your worksheet. Print or Submit as directed by your instructor.	5	
Grade	100	

Lesson 3

Enhancing a Worksheet

Lesson 3 Objectives

- ✓ Enhance a worksheet using objects.
- ✓ Create and modify charts.

Madison County School District

ICT II

Enhancing a Worksheet – Part I

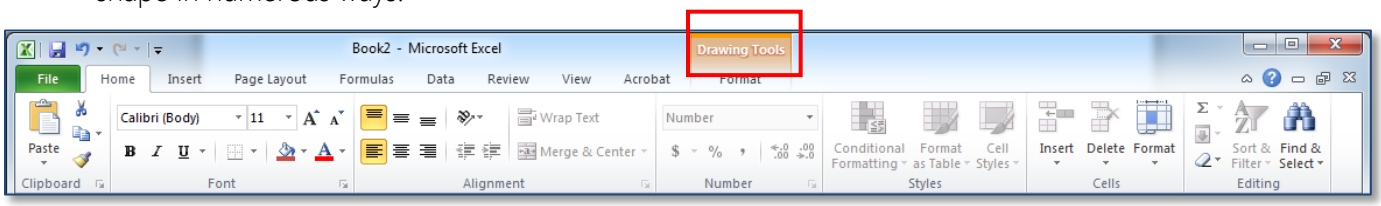
Including visual elements such as ClipArt, WordArt, shapes, and charts can make your worksheet more informative and attractive.

Adding Objects to a Worksheet

An object is anything that appears on the screen that you can select and work with as a whole, such as a shape, picture, or chart.

- You can enhance your worksheet and make it more informative by including **shapes** such as rectangles, circles, arrows, lines, flowchart symbols, and callouts.
  - Like Word, Excel includes a gallery of shapes you can use. The Shapes gallery can be accessed by clicking on the **Shapes** button, which is located in the **Illustrations** group on the **Insert** tab.
  - Once you select a shape to use, you insert the shape by clicking and dragging your mouse across the area of the worksheet where you want the shape to appear.

- When you insert an object such as a shape, contextual tabs appear. Contextual tabs are tabs that appear on the Ribbon only when you select certain items in a file, and contain commands related to that item.
  - When you work with shapes, the **Drawing Tools** appear with the *contextual* **Format tab**, as shown in the illustration below.
  - The tools available in the **Drawing Tools** / *contextual* **Format** tab on the ribbon allow you to modify the shape in numerous ways.



- You may insert **WordArt** using the **WordArt** button in the **Text** group on the **Insert** tab.

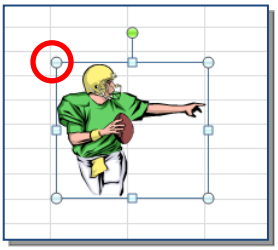
- You can also modify your WordArt object using the **Drawing Tools** / *contextual* **Format** tab.

- You might also want to use a **Picture** or **ClipArt** to make the appearance of your worksheet more attractive.
  - You can insert a picture you have stored on your computer as a file, or use a picture from the ClipArt collection.
  - Use the **Picture** button which is located in the **Illustrations group** on the **Insert tab** to insert a picture stored on your computer, or the **ClipArt** button (also in the **Illustrations group**) to insert an image from the **ClipArt collection**.
  - As with shapes and WordArt, you may also modify your **ClipArt** object using the **Drawing Tools** / *contextual* **Format tab**, which appears when you are working with an image.

Excel Activity - Lesson 3.1

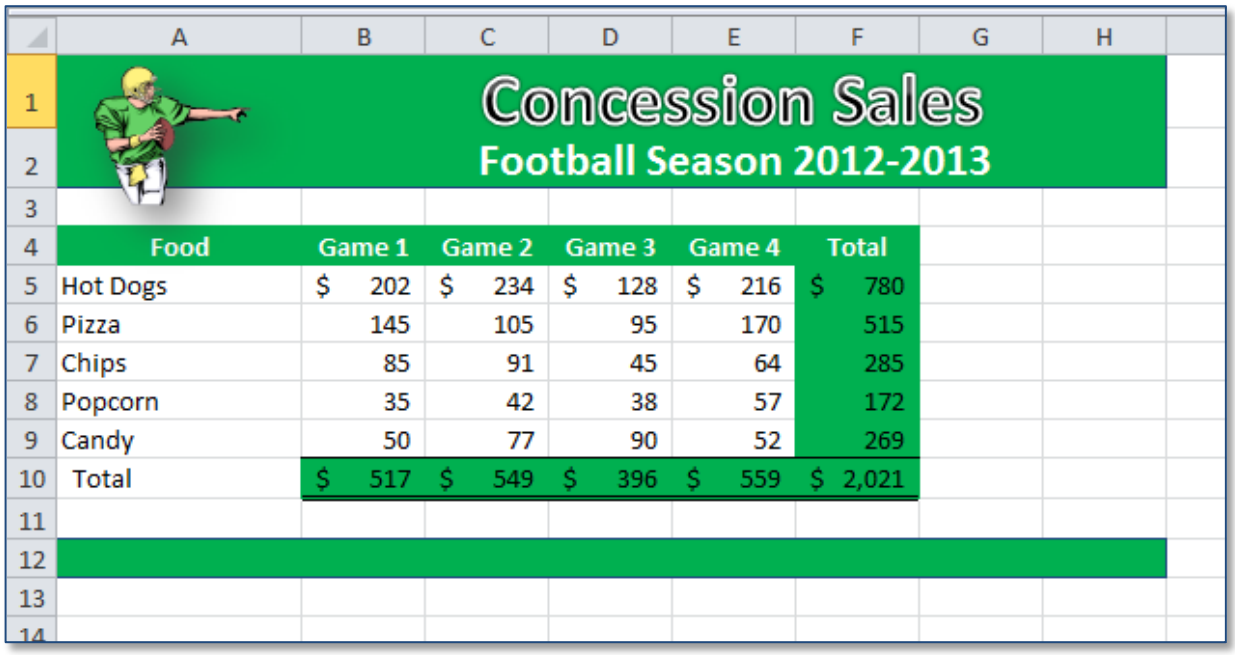
Step by Step Part 1:

The following activity illustrates how to enhance the appearance of a worksheet by inserting objects. The football team sells a variety of concession items at their home football games. This worksheet shows what a record of the sales of popular concession items might look like.

What you do:	*What happens:*
1. Open **Excel**, if you have not already done so. **2.** Open the L3 Part 1 Concessions data file from your **Excel** folder in the **Documents Library**. **3.** Click on the **File Menu**, and then click **Save As**. **4.** Change the save location to the **Excel** folder you created in your **Documents Library**. **5.** In the file name box, change the file name to Concession Sales Your Name Block #. **6.** Click Save. Be sure to save often as you work using the regular *Save* command	The workbook will appear in the program window. The **Save As** dialog box appears
7. Select cell **A1**. Click the **Insert tab** on the Ribbon. In the **Illustrations group**, click the **Clip Art** button. **8.** In the **Search for:** box, type the key word **football** and then click **Go**.	The **Clip Art** panel appears to the right side of the window. Wait for the results to load.
9. Select the image of the football player as pictured here to the right. **10.** Using the **sizing handles** around the edge of the picture, **resize** the football player so that it is small enough to fit to the left of the title of the spreadsheet – Football Season 2012-2013 – as pictured to the right. **11.** Locate the **Picture Styles** group with the gallery of picture styles. Select **Drop Shadow Rectangle** (fourth item in the top row of choices). **12.** Click on the image of the football player, and drag it until it appears horizontally and vertically centered in the space to the left of the title – as pictured to the right.	The **Picture Tools** and contextual **Format** tab become available.  

What you do:	*What happens:*
13. Select cell B1. Click the **Insert tab** on the Ribbon. In the **Text group**, click the **WordArt** button.	A gallery of WordArt styles should open.
14. Select **Gradient Fill – Black, Outline – White, Outer Shadow** (third item in the fourth row). **15.** Replace the filler text "*Your Text Here*" with the text: **Concession Sales**.	A text box appears for you to type your WordArt text.
16. Select the text you just typed in the text box, and change the **font size** (using the Mini toolbar or on the Home tab) to **28**.	
17. **Right-click** on the WordArt object. Select **Format Shape** from the shortcut menu.	
18. In the **Format Shape dialog box** that appears, choose **Text Box**. Locate the **Internal margin** settings. Change the value for **Top** to **0**. Click **Close**.	
19. Drag the text box into the empty space in cells **B1:H1**, so that *Concession Sales* is centered above *Football Season 2012-2013* – as pictured to the right.	
20. Save your worksheet.	

Your worksheet should look similar to the one pictured below:



	A	B	C	D	E	F	G	H
1				Concession Sales				
2				Football Season 2012-2013				
3								
4	Food	Game 1	Game 2	Game 3	Game 4	Total		
5	Hot Dogs	$ 202	$ 234	$ 128	$ 216	$ 780		
6	Pizza	145	105	95	170	515		
7	Chips	85	91	45	64	285		
8	Popcorn	35	42	38	57	172		
9	Candy	50	77	90	52	269		
10	Total	$ 517	$ 549	$ 396	$ 559	$ 2,021		
11								
12								
13								
14								

Enhancing a Worksheet – Part 2

Adding Charts to a Worksheet

A chart is a graphical representation of data. Charts make the data in a worksheet easier to understand by providing a visual picture of the data. You can create a variety of charts in Excel. In this lesson, we will work with four of the most commonly used charts: **column chart, line chart, pie chart,** and **scatter chart**.

- A column chart is a chart that uses bars of varying heights to illustrate values in a worksheet.
  - It is useful for showing relationships among categories of data.
- A line chart is similar to a column chart, but uses points connected by a line to illustrate the values in a worksheet.
  - It is useful for illustrating trends.
- A pie chart shows the relationship of a part to a whole. Each part is shown as a "slice" of the pie.
- A scatter chart, which is sometimes also called an "XY Chart", shows the relationship between two categories of data. Unlike a line chart, the data points do not always relate to each other, so it is not always practical to connect the data points with a line.
  - One category of data is represented on the vertical (Y) axis.
  - The other category is represented on the horizontal (X) axis.

Regardless of the chart type used, the **process** of creating a chart involves three basic steps:

- Selecting Chart Data
  - Charts are based on **data**. The data upon which the chart is based is called the data source.
  - In Excel, the data source is stored in a range of cells in the worksheet.
  - When selecting the data to use in creating a chart, you should also include the **text** that will be used as **labels** in the chart.
  - A data series is a group of related information in a column or row of a worksheet that is plotted on the chart.
  - You can decide to chart more than one series of data.

- Selecting a Chart Type
  - You should choose the chart type that is most appropriate for the type of data you are presenting.
  - Each type of chart has a variety of subtypes to choose from.
  - The **chart types** are available in the **Charts** group on the **Insert tab**.
  - You may change chart types or subtypes after you have created your chart.

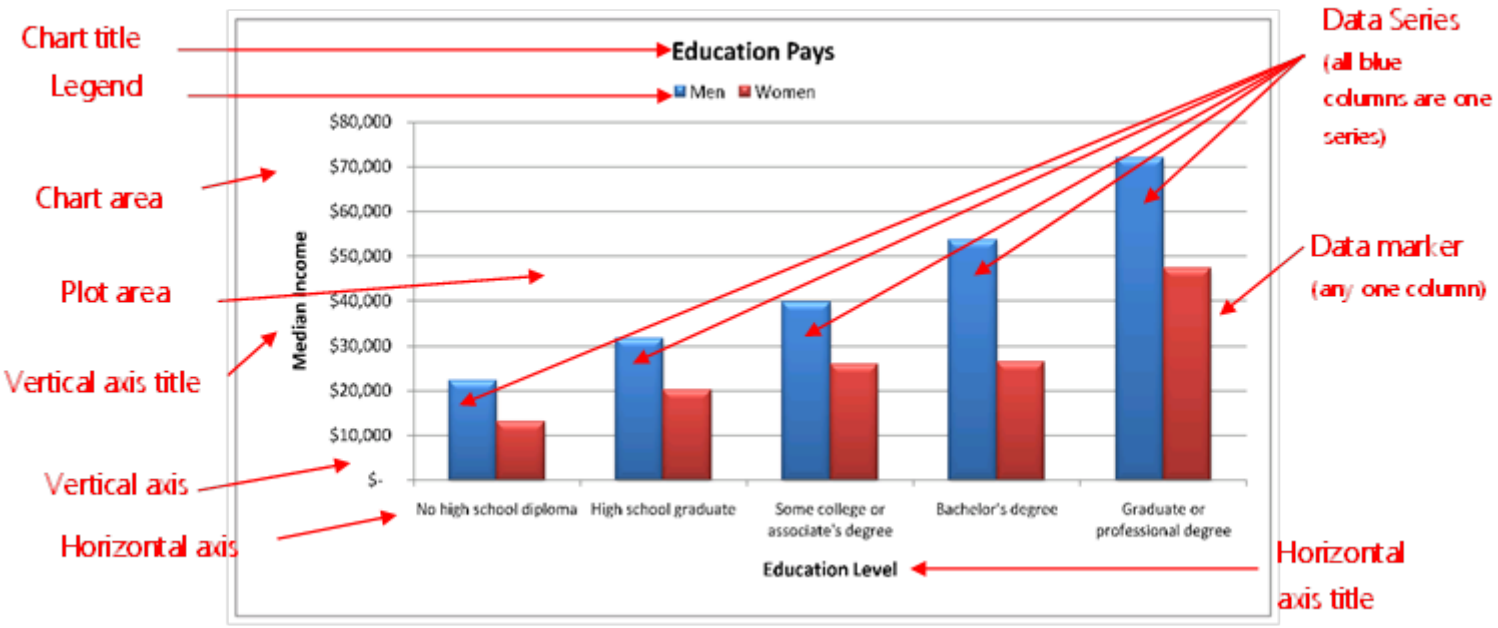
- Choosing the Chart Location
  - By default, a chart is inserted as an embedded chart (a chart which is inserted in an existing worksheet) in the center of the worksheet.
  - The **advantage** of an **embedded chart** is that it can be viewed alongside the data from which it is created. However, sometimes the chart covers the data source or other information in a worksheet.
  - You can choose to:
    - **resize** and/or **move** the chart to another location on the **same worksheet**;
    - **embed** the chart in a different, existing worksheet; or
    - **move** the chart to a chart sheet (a separate sheet in the workbook that stores a chart). A chart sheet does not have gridlines, cannot contain data or formulas, and displays the chart without its data source.

- When you **update** data used as the **data source** for a chart, the **chart** is **automatically updated** to reflect the new data.

Charts are made up of different parts, or elements. These parts are described in the chart below and identified in the illustration that follows.

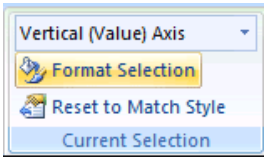
ELEMENT	DESCRIPTION
Chart area	The entire chart and all other chart elements
Plot area	The graphical representation of all of the data series
Data series	Related information in a column or row that is plotted on a chart; charts can include more than one data series
Data marker	A symbol (such as a bar, line, dot, slice and so forth) that represents a single data point or value from the corresponding worksheet cell
Data label	Text or numbers that provide additional information about a data marker, such as the value from the worksheet cell (not shown in illustration)
Axes	Lines that establish a relationship between data in a chart; most charts have a horizontal axis and a vertical axis
Titles	Descriptive labels that identify the contents of the chart and the axes
Legend	A list that identifies patterns, symbols, or colors used in the chart
Data table	A grid that displays the data plotted in the chart (not shown in illustration)

Chart Elements



- The quickest way to select a chart element for editing is to click it with the mouse pointer.
  - When you select a chart element, it becomes surrounded by a selection box.

- You can also select elements using the Ribbon. Click on the *contextual* **Format** tab under **Chart Tools**. In the **Current Selection group**, click the **arrow** next to the **Chart Elements box**. *A menu of chart elements for the selected chart appears.*



- You can quickly change the look of a chart by applying a **layout** and **style**.
  - A chart layout specifies which elements are included in a chart and where they are placed.
  - A chart style formats the chart based on the colors, fonts, and effects associated with the workbook's theme.
  - The layout and style galleries can be accessed on the *contextual* **Design** tab under **Chart Tools** on the Ribbon.

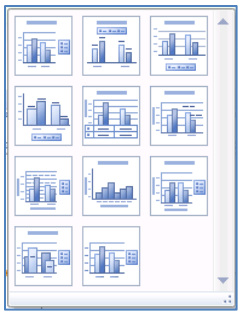


Chart Layouts gallery for column charts

Chart Styles gallery for column charts

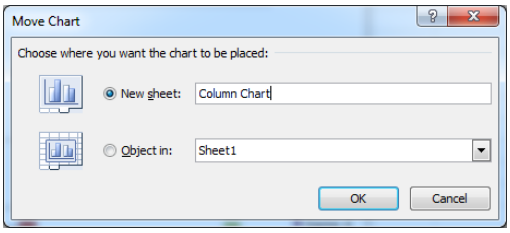
- You can also create a specific look for a chart by using the buttons in the *contextual* **Layout** tab under **Chart Tools** to specify the location and appearance of various elements.

- If you want to ***fine tune*** the appearance of a chart to best suit your needs, you can access the **Format dialog box** by right-clicking on different elements of the chart and selecting the format option from the shortcut menu.

Excel Activity - Lesson 3.2

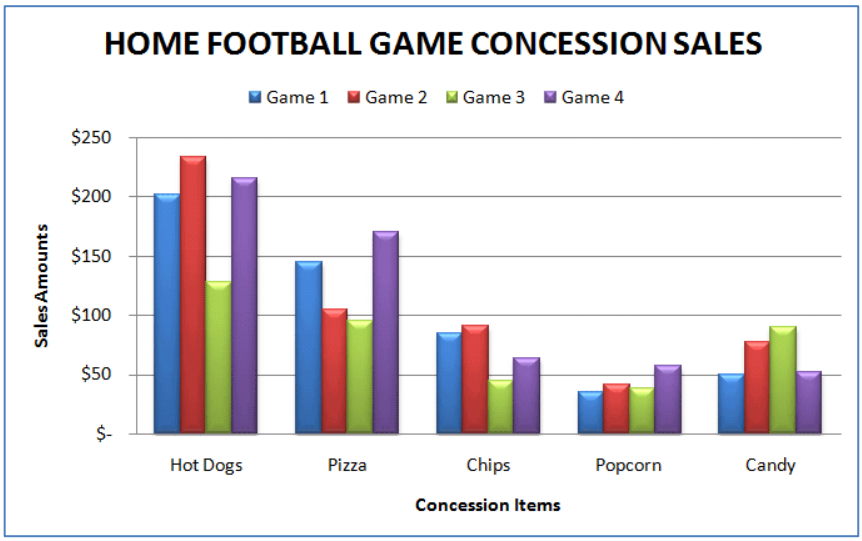
Step by Step Part 2:

In this part of this activity, you will insert a column chart and modify the layout and appearance.

What you do:	*What happens:*
1. Open **Excel**, and the Concession Sales *Your Name Block #* file, if necessary. **2.** Select the range **A4:E9**.	This is the data you want to chart.
3. Click on the **Insert tab** on the Ribbon. In the **Charts group**, click the **Column** button. **4.** In the **2-D Column** section, point to **Clustered Column** (the first chart in the first row). **5.** Click the **Clustered Column** button.	A menu of available column chart subtypes appears. A ScreenTip appears with a description of the selected chart. The 2-D clustered column chart is embedded into the existing worksheet. A selection box with sizing handles appears around the chart,
6. Drag the selected chart so that upper-left corner of the chart is in cell **A15**. **7.** Drag the lower-right sizing handle to cell **H32**. **8.** On the Ribbon, click on the **Design** tab, if it is not already selected.	The chart is resized to cover the range **A15:H32**.
9. In the **Location** group, click the **Move Chart** button. **10.** Click the **New Sheet** option button. **11.** In the **New sheet box**, type **Column Chart**. Click **OK**.	The **Move Chart dialog box** appears.  The text in the **New sheet box** is selected so you can type a descriptive name for the chart sheet. The chart moves to a chart sheet named **Column Chart**. The chart illustrates the sales amounts of the various concession items at the different home games.

What you do:	*What happens:*
12. On the Ribbon, select the **Design** tab under **Chart Tools**, if it is not already selected.	
13. In the **Chart Layouts** group, click the **More** button, and click on **Layout 9**.	A gallery of chart layouts appears, and placeholders for the chart title and axes titles are added to the chart.
14. Click the **Chart Title** placeholder to select it. Type **HOME FOOTBALL GAME CONCESSION SALES**, and then press the **Enter** key.	The chart title is updated.
15. Click the **Vertical Axis Title** placeholder to select it, type **Sales Amounts**, and then press the **Enter** key.	The Vertical Axis Title is updated.
16. Click the **Horizontal Axis Title** placeholder to select it, type **Concession Items**, and then press the **Enter** key.	The Horizontal Axis Title is updated.
17. On the **Design** tab, in the **Chart Styles** group, click the **More** button.	A gallery of chart styles appears.
18. Click **Style 26**.	The chart changes to match the selected style.
19. On the Ribbon, under **Chart Tools**, click the **Layout** tab.	
20. In the **Labels** group, click the **Legend** button.	A menu appears with different placement options for the legend.
21. Click **Show Legend at Top**.	The legend moves to below the chart title.
22. Save your file.	

Your column chart should now resemble the one below:



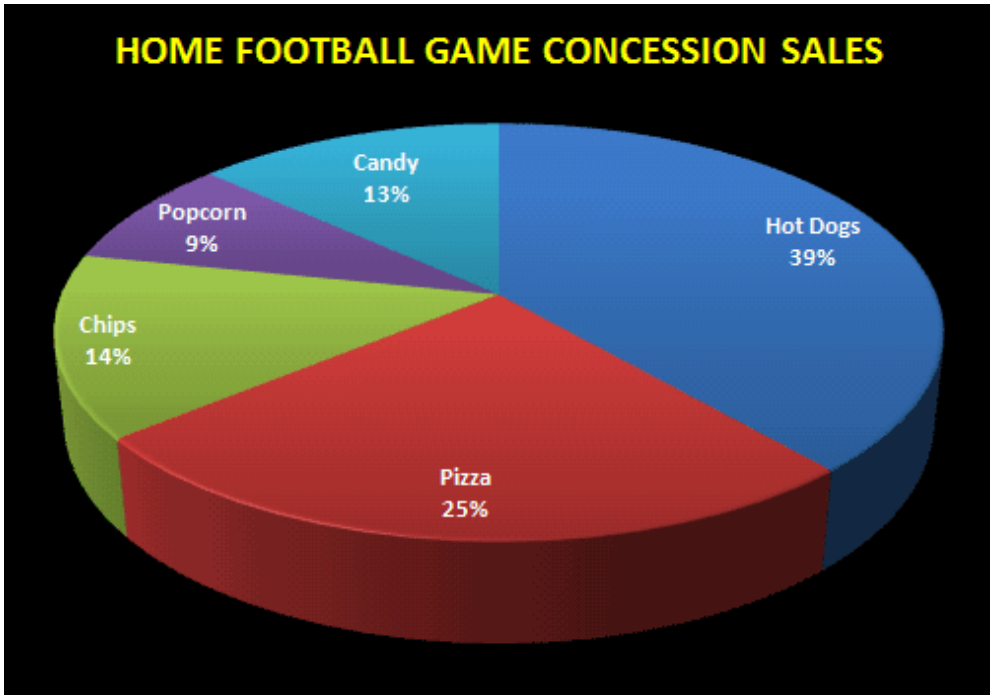
Step by Step Part 2 Continued:

In this part of this activity, you will insert a pie chart and modify the layout and appearance.

What you do:	*What happens:*
1. Click on the sheet tab for **Sheet 1** to return to the worksheet containing your data source.	
2. Select the range of cells **A5:A9**, and then, holding down the **CTRL** key on your keyboard, select the range **F5:F9**.	You should have **both** ranges of cells selected at this time.
3. Click the **Insert** tab on the Ribbon. In the **Charts** group, click the **Pie** button.	
4. In the **3-D Pie** section, click **Pie in 3-D**.	The pie chart is embedded in the worksheet.
5. Drag the selected chart so that upper-left corner of the chart is in cell **A15**.	
6. Drag the lower-right sizing handle to cell **G32**.	The chart is resized to cover the range **A15:G32**.
7. On the Ribbon, click on the **Design** tab, if it is not already selected.	
8. In the **Chart Layouts** group, click the **More** button.	A gallery of chart layouts appears.
9. Click **Layout 1**.	The legend disappears, and each slice of the pie shows the segment name and the percentage of the whole it comprises.
10. Click the **Chart Title** to select it. Type **HOME FOOTBALL GAME CONCESSION SALES**, and then press the **Enter** key.	The chart title is updated.
11. Click on the **Layout** tab, if it is not currently selected. Locate the **Labels** group, and click on **Data Labels**. Choose **Inside End**.	The data labels are **inside** the slices at the **end** of each slice.
12. On the **Design** tab, in the **Chart Styles** group, click the **More** button. Click **Style 42** (the second style in the last row).	A gallery of chart styles appears. The chart changes to match the selected style.
13. Click on any of the **data labels**. A **selection box** should appear around all of the data labels. Apply **bold formatting** from the **Home** Ribbon.	
14. Select the **chart title**, and change it to **font size 16** to better fit it within the space. Change the **font color** to **yellow**.	

What you do:	*What happens:*
15. Click outside of your Pie Chart – anywhere in your worksheet - to deselect the Pie Chart. **16.** On the **Ribbon**, click the **Insert** tab. In the **Text** group, click the **Header & Footer** button to open the **Header & Footer Tools**, and then click **Go To Footer** (in the **Navigation** group). **17.** Type your **footer** (**name/block at the left, file name in the center date at the right**). **18.** Exit the header/footer, and then click on the **Normal** view button to resume "normal" view of the worksheet. Press **<CTRL> <HOME>** to make cell **A1** the active cell. **19.** Save your file.	

Your pie chart should now resemble the one below:



Renaming Worksheets

Although you can leave the default worksheet names, it is good practice to use descriptive names to help identify the contents of each worksheet when creating multiple worksheets within one workbook.

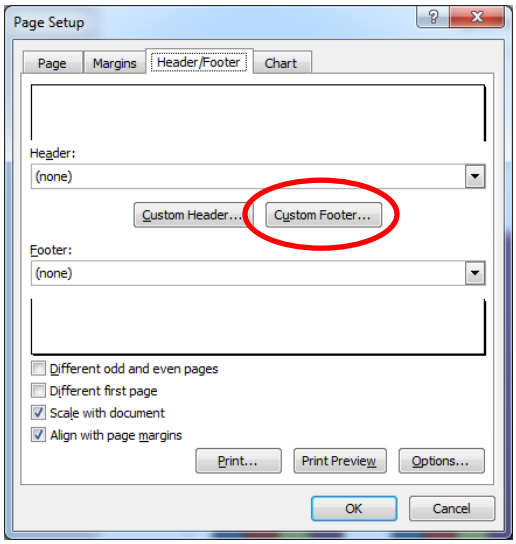
- **Rename a Worksheet** - double-click on the sheet tab name, then type the new name.

You can also categorize and help identify worksheets within a workbook by changing the sheet tab color.

- **Change the Color of a Sheet Tab** - right-click on the sheet tab, choose *Tab Color* from the shortcut menu, and then select the desired color from the colors palette.

Step by Step Part 2 Continued:

In this part of this activity, you will rename and change tab colors, and add a header/footer to the chart sheet.

What you do:	*What happens:*
1. **Double-click** on the **sheet tab** for **Sheet 1**. Type a new name for the sheet tab: **Concessions Data**.	The new name appears on the sheet tab.
2. **Right-click** on the **Concessions Data** sheet tab (that you just renamed). Choose **Tab Color** from the shortcut menu. From the color box, under Standard Colors, select **Green**.	
3. Right-click on the **Column Chart** sheet tab. Change the tab color to **Purple, Accent 4**.	
4. *The process to add a footer to a chart sheet is a bit different than a standard worksheet.* On the **Ribbon**, click the **Insert** tab. In the **Text** group, click the **Header & Footer** button.	Notice that in this case, a **Page Setup** dialog box opens.
5. Click on the **Custom Footer** button (in the middle of the dialog box).	
6. Type your **Name/Block** at the **left**. In the **center** section, find and click on the **Insert File Name** button inside the dialog box; and in the **right** section, find and click on the **Insert Date** button.	
7. Click **OK**, and then **OK** again to completely exit the header and footer box.	
8. **Print Preview** both the **Concessions Data** worksheet and the **Column Chart** worksheet. Check the worksheets carefully (check for footers, that both of your worksheet each fit on one page, etc.)	
9. Save. Follow your instructor's instructions for submitting, printing, or checking your work.	

Excel On Your Own Project 3A – American Idol

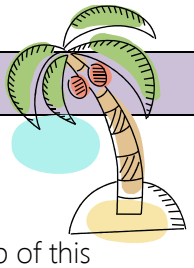
The following activity is designed for you to practice the skills needed to enhance an Excel worksheet by inserting charts and other objects, as well as skills learned earlier in the unit.

American Idol has become one of America's biggest and most watched television shows. Since its debut in the summer of 2002, American Idol has grown bigger each season. The author of a recently published book surveyed 200 American Idol viewers and asked them who their favorite American Idol singer was.

Directions	Points Worth	Points Earned
1. Open a new blank workbook in Excel. **Save** the file to the **Excel** folder in the Documents Library using the name OYO American Idol Your Name Block#. Be sure to save your work often!	4	
2. Change the **column widths** as follows: **columns A & B**: 8.57; **columns C & D**: 25.00; **columns E & F**: 8.57.	5	
3. Change the **row heights** as follows: **row 1:** 105.00; **rows 2-8**: 20.25.	5	
4. **Merge & Center** cells **C1:D1**.	2	
5. *You are going to create an American Idol logo to place in cell C1 using a shape and WordArt*. From the **Insert** tab of your Ribbon, choose **Shapes**. From the **Basic Shapes** section of the shapes gallery, choose the **Oval** shape. 6. Drag in cell **C1** to create an oval shape. With the oval shape selected and the **Format** tab showing, locate the **Size** group at the right end of the Ribbon. Change the **height** to **1.25** and the **width** to **2.00**. 7. If necessary, drag the oval shape until it appears **horizontally** and **vertically centered** within cell **C1**. 8. Open the **Shape Styles** gallery. Click on **Moderate Effect – Accent 1** (the second style in the fifth row). 9. In the Shape Styles group, click on the **arrow** next to **Shape Outline**. Select **Dark Blue, Text 2, Lighter 80%**. Click on the **arrow** next to **Shape Effects**, choose **Glow**, and then **Accent color 1, 5 pt glow** (the first effect in the glow effects gallery). 10. Click in cell **E1**. On the **Insert** tab, in the **Text** group, click on the **WordArt** button. From the gallery of WordArt styles, choose **Fill – Accent 1, Inner Shadow – Accent 1** (the fourth style in the second row). 11. In the WordArt text box that appears, type **American** (hit the enter key, and then type) **Idol**. 12. Select the text you just typed, and change the **font** to **Brush Script MT**, size **32**. Drag the WordArt to cell **C1** and **center** it **within the oval shape**.	20	
13. In cell **C2** type the text **CONTESTANT**. In cell **D2**, type the text **VOTES FOR FAVORITE.**	2	
14. Change the font of **C2:D2** to **Britannic Bold**, size **13**. Apply **font color Dark Blue, Text 2** to these two cells.	5	

15. Type in the following American Idol **names** and the **number** of votes (**type the numbers only**) each received in the survey **(in order from most to least votes received)** into the appropriate worksheet columns: • Fantasia Barrino (40 votes) • Clay Aiken (26 votes) • Kelly Clarkson (58 votes) • Reuben Studdard (42 votes) • Carrie Underwood (34 votes)	5	
16. Apply **Bold** formatting to cells **C3:D7**. 17. **Center** align cells **D2:D7**. **Increase indent** one time for cells **C2:C7**.	5	
18. Apply **fill** color **Blue Accent 1, Lighter 80%** to cells **C1:D7**. Change the **fill** color of cells **C2:D2** to **Dark Blue, Text 2, Lighter 60%**.	5	
19. Select the range **C1:D7**. Click on the **arrow** next to the **Borders** button (on the **Home** tab, **Font** group). Choose **Line color**, and select **Blue Accent 1, Darker 25%** from the colors palette. Click on the **arrow** next to the **Borders** button again, and choose **Thick Box Border**.	2	
20. Select the range **C3:D7**; *this range of cells contains the data you are going to chart*. Click on the **Insert** tab, and then choose **Pie** from the **Charts** group. Select **Exploded pie in 3-D**.	10	
21. **Move** the pie chart so that the upper-left corner is in cell **A9**. Drag the lower-right sizing handle until the chart fills cells **A9:F30**.	5	
22. From the **Design** tab, apply **Chart Style 26** (second style in the fourth row) and **Chart Layout 2**.	5	
23. On the **Layout** tab, **Labels** group, click on **Legend**. Select **Show Legend at Bottom**. Click on the **legend** inside the chart. Change to **font size 16** and apply **Bold** formatting.	5	
24. Click on the chart title inside the chart. Type the title text: **VOTES FOR FAVORITE**. Change to **Britannic Bold** font, **size 20**. Change the **font color** to **Blue Accent 1, Darker 25%**.	5	
25. On the **Layout** tab, **Labels** group, click on **Data Labels**. Choose **Center**. Click on any of the **data labels** to select all of the labels. Change to **font size 14, font color to white** and apply **Bold** formatting.	5	
26. **Save** your work.		
27. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right. Resume "normal" view of the worksheet.	5	
28. **Print Preview**. Check the worksheet carefully (for footer, margins, etc.) Follow your teacher's instructions for grading, submitting and/or printing the assignment. 29. Save & Close the file.		
Grade		

Excel On Your Own Project 3B – Orlando



The following activity is designed for you to practice the skills needed to enhance an Excel worksheet by inserting charts and other objects.

Your family has purchased a time-share condominium in Orlando, Florida. Your partial ownership of this condominium provides you with its use during 6 weeks each calendar year. Your family must designate the weeks during the year that you will use the condo. To help in your planning, you decide to create a worksheet and chart showing the average temperatures during different times of year.

Directions	Points Worth	Points Earned
1. Open the data file OYO Orlando from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO Orlando Your Name Block#. Be sure to save your work often!	5	
2. From the **Insert** tab of your Ribbon, choose **Picture**. Browse to the **Pictures Library** and select the picture **orlandodisney**.		
3. With the image selected, click on the **Format** tab if it is not currently selected, and locate the **Size** group at the right end of the Ribbon. Change the **Height** to **.75** .	5	
4. Drag the image so that it is completely contained within cells **K1:M2**.	5	
5. Select the range **A3:M5**, *this range of cells contains the data you are going to chart*. Click on the **Insert** tab, and then choose **Line** from the **Charts** group. Select **Line with Markers**.	5	
6. **Move** the line chart so that the upper-left corner is in cell **A8**. Drag the lower-right sizing handle until the chart fills cells **A8:M28**.	5	
7. From the **Design** tab, apply **Chart Style 18** (second style in the third row) and **Chart Layout 3**.	5	
8. Change the **chart title** to **Temperatures for Orlando, Florida.**	5	
9. On the **Layout** tab, **Labels** group, click on **Axis Titles**. Select **Primary Vertical Axis Title**. Click on the **Rotated Title** option. Type the vertical axis title **Temperatures in Fahrenheit**.	5	
10. With the vertical axis title still selected, change the **font size** to **12**.	5	
11. Select the **vertical axis** (showing temperatures); change the **font size** to **12** and apply **Bold** formatting. Change the **horizontal axis** (listing months) to **font size 12** with **Bold** formatting. Click on the **legend** inside the chart. Change to **font size 12** with **Bold** formatting.	5	
12. Click on the **vertical axis** in the chart to select it. Right-click and select **Format Axis** from the shortcut menu that appears. Next to **Minimum**, click the **Fixed** option button. In the **Minimum Fixed** box, type **40**.	5	
13. On the **Layout** tab, in the **Current Selection Group**, use the **Chart Elements box** to select **Series "High"** in the chart.		

14. Click the **Format Selection** button (also in the Current Selection group) to open the **Format Data Series dialog box.** Make the following changes: A. Click **Marker Fill** from the menu at the left to display the options. Click the **Gradient fill** option button. Click the **Preset colors** box and select **Fire** (fourth gradient choice in the second row). In the **Type** box, choose **Rectangular**, and in the **Direction** box, choose the first option **From Corner**.	5	
B. Click **Line Color** from the menu at the left to display the options. Click the **Solid line** option button. Click the **Color** button, and then click **Dark Red** in the Standard Colors section.	5	
C. Click **Marker Line Color** from the menu at the left to display the options. Click the **Solid line** option button. Click the **Color** button, and then click **Dark Red** in the Standard Colors section. D. Click **Close** to close the Format Series dialog box.	5	
15. On the **Layout** tab, in the **Current Selection Group**, use the **Chart Elements box** to select **Series "Low"** in the chart.		
16. Click the **Format Selection** button (also in the Current Selection group) to open the **Format Data Series dialog box.** Make the following changes: A. Click **Marker Fill** from the menu at the left to display the options. Click the **Gradient fill** option button. Click the **Preset colors** box and select **Nightfall** (third gradient choice in the first row). In the **Type** box, choose **Radial**, and in the **Direction** box, choose the last option **From Corner**.	5	
B. Click **Line Color** from the menu at the left to display the options. Click the **Solid line** option button. Click the **Color** button, and then click **Dark Blue** in the Standard Colors section.	5	
C. Click **Marker Line Color** from the menu at the left to display the options. Click the **No line** option button. D. Click **Close** to close the Format Series dialog box.	5	
17. Click in the **Plot area** to select it. Right-click in the plot area, and then select **Format Plot Area** from the shortcut menu. Click **Fill** from the menu at the left to display the options. Click the **Solid fill** option button. Click the **Color** button, and then click **Orange, Accent 6, Lighter 40%**.	5	
18. In the **Page Setup** group of the **Page Layout** tab, change the **Orientation** to **Landscape** and set the **Margins** to **Normal**, if they are not already. Click **Close**. 19. Save your work.	5	
20. Click away from the chart to deselect it. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right. Resume "normal" view of the worksheet.	5	
21. **Print Preview.** Check the worksheet carefully (for footer, margins, etc.) Follow your teacher's instructions for grading, submitting and/or printing the assignment. 22. Save & Close the file.		
Grade	100	

Excel On Your Own Project 3C – iTunes

The following activity illustrates how spreadsheets can be used to create a bar graph to analyze the frequency of popular iTunes recently downloaded.

The existence of iTunes has made it easy for anyone with a computer and an Internet connection to create and organize their own music and video library. Songs can be downloaded from Apple's iTunes website (www.itunes.com) quickly and easily. Users can share music, create playlists, and take their music collections with them wherever they want on an iPod. The popularity of iTunes is forecasted to continue to grow exponentially.

Directions	Points Worth	Points Earned
1. Open the data file OYO ITunes from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO ITunes Your Name Block#. Be sure to save your work often!		
2. Change orientation to **Landscape** and Select **Narrow margins** from the Page Layout tab.	5	
3. Change the font size in **cell A1** to **16 point** and **Bold** the cell.	5	
4. Change the **column widths** as follows: **Column A to 41. Column B to 14.**	5	
5. **Bold** row 3.	5	
6. Change the **row heights & alignments** as follows: **row 1: 24.00, middle align**; **row 2: 60.00; row 3: 21.00; rows 4-13: 18.00.**	5	
7. **Merge & Center** cells **A1:B1** and **A2:B2**.	5	
8. Place cursor in **cell A2**, from the **Insert** tab of your Ribbon; choose **ClipArt** from the **Illustrations Grouping**. Search for a **MP3 player of your choice**. 9. **Resize** & **center** your image in cell **A2.**	5	
10. Create a **column chart of your choice** as follows: a. Select the range of cells **A3:B13**. b. Click on the **Insert** tab, and then choose **Column** from the **Charts** group. Select a **Column Chart of your choice**.	5	
c. **Move** the column chart to a **new sheet** named **Column Chart**. (Design tab, Location group).	5	
d. Still in the **Design** tab, apply a **Chart Style of your choice** and **Chart Layout 6**.	5	
e. Click on the chart title inside the chart. Type the title text: **MOST POPULAR iTUNES DOWNLOADED**. Change to **font style of your choice**, **size 20**. Select a **font color of your choice**.	5	

f. Select the **Legend** and click the **Delete button** on your keyboard.	5	
g. Click in the **Horizontal Axis** (the songs & artist at the bottom of the chart) to select it. **Right-click** and **select Format Axis** from the shortcut menu. h. Click on **Alignment** at the bottom left of the dialog box that appears. In the Custom Angle box, type **-50**. (*This will place data on an angle.*)	5	
i. With the **Horizontal Axis** selected, change the font **size to 12**. Change the font size of the **Vertical Axis** also to **size 12**.	5	
j. From the Layout tab, Choose Axis Titles button, Primary Horizontal Axis Title, Choose Title Below Axis.	5	
11. Select the **Horizontal Axis Title** and name it **Song & Artist** & change to font size of **14.** Select the **Vertical Axis Title** and name it **Number of Downloads** & change to font size of **14.**	5	
12. **I**nsert a **footer o**n the Column Chart Sheet. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right).	5	
13. Select Sheet 1, **Center** align cells **A3:B3**. **Increase indent** one time for cells **A4:A13**. Center Align **B4:B13**.	5	
14. Double click **Sheet 1** tab. **Change the name** to **iTunes Data** THEN Right click to change the **tab color** to Standard **Green**.	5	
15. Insert a **footer** on the iTunes Data Sheet. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right). **Save**.	5	
16. **Print Preview**. Check the worksheet carefully (check for footer, etc.) Follow your teacher's instructions for grading, submitting and/or printing the assignment. 17. SAVE **and Close** the file.		
Grade	100	

Lesson 4

Using Worksheet Formulas & Functions

Lesson 4 Objectives

- ✓ Write formulas using basic arithmetic operations.
- ✓ Demonstrate the use of basic spreadsheet functions.
- ✓ Sort and manipulate data using formulas and functions.

Madison County School District

ICT II

Using Worksheet Formulas and Functions –Part I

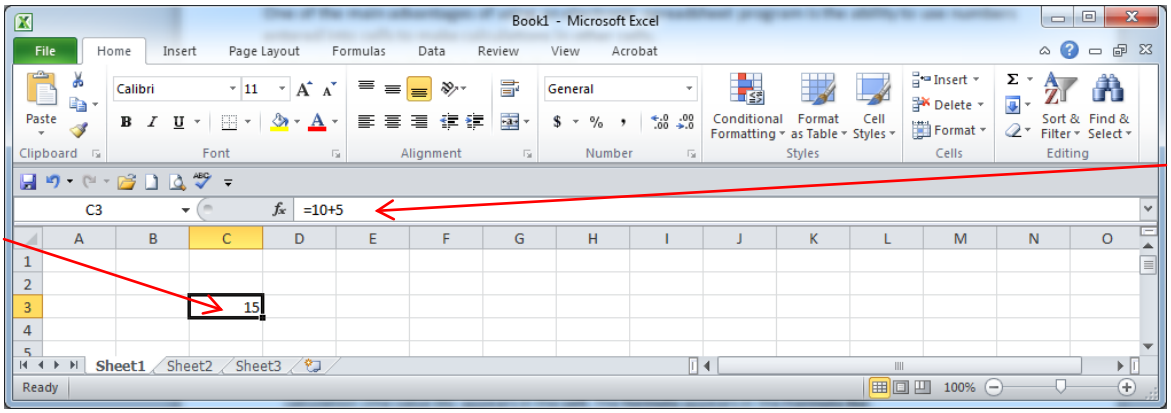
One of the main advantages of using an electronic spreadsheet program is the ability to use numbers entered into cells to make calculations in other cells.

Entering Formulas in a Worksheet

A formula is an equation used to calculate values in a cell.

- Each formula begins with an = sign.
- The **results** of the calculation appear in the worksheet cell in which the formula is entered.
- The formula itself appears in the **Formula Bar**.

Formula results appear in the cell



Formula in the active cell appears in the formula bar

In the illustration above, the formula =10+5 has been entered into cell **C3**. Notice that the result of the calculation (the value **15**) appears in the **cell**. The **formula** appears in the **Formula Bar**.

- Formulas consist of two components: operands and operators.
  - An operand is a **constant** (text or number) or a **cell reference** used in a formula.
    - Cell references used in a formula may be typed in uppercase (A1) or lowercase (a1).
  - An operator is a mathematical symbol used that indicates the type of calculation to perform on the operands.
  - In the formula =C2+8:
    - the **operands** are the *cell reference* **C2** and the *constant* **8**
    - the **operator** is the *mathematical symbol* **+**, which tells Excel to add the two operands together.

The table to the right shows the different mathematical operators you can use in formulas.

OPERATOR	OPERATION
+	Addition
–	Subtraction
*	Multiplication
/	Division
^	Exponentiation

- When you finish typing a formula in a cell, you must enter it by:
  - Pressing the **Enter** key or the **Tab** key on the keyboard, or
  - Clicking the **Enter button** on the Formula Bar

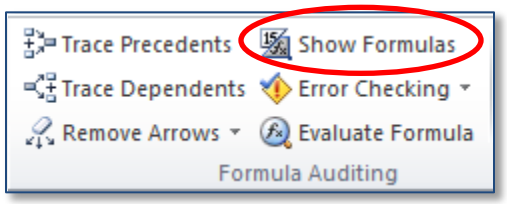
- Formulas may also include more than one **operator**. The sequence used to calculate the value of a formula when there is more than one operand is called the order of evaluation.
  - Any contents contained within **parentheses** are evaluated first. *A formula can contain multiple sets of parentheses, in which case the innermost set of parentheses is evaluated first.*
  - The following table shows the order in which other mathematical operators are evaluated.
  - If two or more operators have the ***same*** order of evaluation, the equation is evaluated **from left to right**.

Order of evaluation priority

ORDER OF EVALUATION	OPERATION	OPERATOR
First	Exponentiation	**^**
Second	Positive or Negative	**+** or **-**
Third	Multiplication or Division	***** or **/**
Fourth	Addition or Subtraction	**+** or **–**

- Excel will not allow you to enter a formula with an incorrect structure.
  - If you attempt to enter an ***incorrect*** formula structure, a dialog box appears explaining the error and offering a possible correction.
    - You can accept the suggested correction, or
    - You can choose to correct the formula yourself
  - Excel will check the formula *structure*, but cannot check whether you are using the correct operators and operands to get the intended result.
    - If you discover that you have made a mistake in constructing your formula, you can select the formula in the active cell or in the Formula Bar and make the necessary corrections.

- Although you generally will want to view the worksheet with the formula results in each cell, you may at times want to view all of the formulas in a worksheet. This may be helpful if you wish to organize formulas or identify errors in your calculations.
  - To view all of the formulas in a worksheet, use the **Show Formulas** button on the **Formulas Ribbon**.



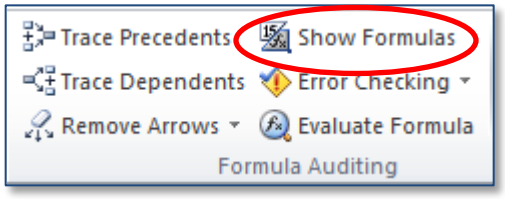
Excel Activity - Lesson 4.1

In the first part of this activity, you will use the information introduced so far in this lesson to create formulas that will perform calculations using other values in the worksheet.

Step by Step - Part 1

The following activity illustrates how to enter and edit formulas in a worksheet.

What you do:	*What happens:*
1. Open Excel if you have not done so already. **2.** Open the L4 Formula file from the Excel folder in the Documents Library (or other data file location specified by your instructor). **3.** From the File Menu, choose Save As and save the file as Formula Practice *Your Name Block#* in the Excel folder in the Documents Library (or other data file location specified by your instructor).	
4. Select cell C3. **5.** Type =A3+B3, and then press the Enter key. **6.** Click in cell C4, and type =A4-B4. Press the Enter key.	You will enter a formula into this cell. The result of the formula (380) appears in cell C3, and cell C4 is now the active cell. The result of the formula (-246) appears in cell C4, and cell C5 is now the active cell.
You can also specify cell references in a formula by clicking on that cell directly instead of typing the cell reference out.	
7. Click in cell C5, type = , click on cell A5, type * , click on cell B5, and then press the Enter key. **8.** Click in cell C6, type = , click on cell A6 in the worksheet, type / , click on cell B6 in the worksheet, and then press the Enter key	The result of the formula (18850) appears in cell C5, and C6 is now the active cell. The result of the formula (2) appears in cell C6, and C7 is now the active cell.
We will now add formulas with more than one operator, and observe the results based on the order of evaluation.	
9. Click on cell D3, and then type the formula =(A3+B3)*20. Press the Enter key.	The result of the formula (7600) appears in the cell. Excel evaluates the contents within the parentheses (A3+B3) first, and then multiplies the result by 20.
10. Click on cell E3, and type the formula =A3+B3*20. Press the Enter key.	The result of the formula (4921) appears in the cell. This is the same formula entered in the step 13 above, only without the parentheses. The result is different because Excel followed the order of evaluation by multiplying the value of cell B3 by 20 before adding the result to the value of cell A3.

What you do:	*What happens:*
11. Click cell **E3**.	Notice that the formula is shown in the Formula Bar.
12. In the **Formula Bar**, click after the = sign.	
13. Type **(** , but <u>leave out</u> the *closing* **)** , and press the **Enter** key.	A dialog box appears indicating that Excel has detected the error in your formula structure, and offers a possible correction.
14. Read the message, and then click **No**. *You will correct the error yourself.* Read the message shown in the dialog box that appears, describing the specific error that Excel found, and then click **OK**.	
15. Move the insertion point in the Formula Bar to between the **3** and the *****.	
16. Type the closing **)** between **B3** and *****, and then press the **Enter** key.	The value changes to **7600.**
We will now change our worksheet to show the formulas in the worksheet cells in place of the formula results.	
17. Click the **Formulas** tab on the Ribbon. In the **Formula Auditing** group, click on the **Show Formulas** button.	
18. Add a **footer** to the worksheet (name/block at left, file name in center, date at right).	
19. **Save**. Follow your instructor's directions for submitting, printing, or checking your work.	All formulas appear in the worksheet cells in place of the formula results.

Your worksheet should now resemble the one below:

C15

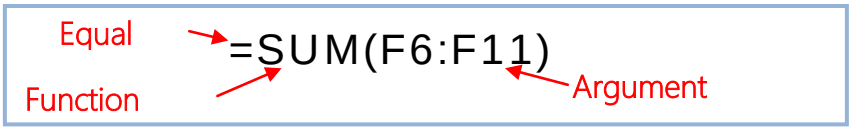
	A	B	C	D	E
1	Formula Practice				
2	operand	operand	formula	complex formula	complex formula
3	141	239	=A3+B3	=(A3+B3)*20	=(A3+B3)*20
4	263	509	=A4-B4		
5	58	325	=A5*B5		
6	800	400	=A6/B6		
7					
8					

Using Worksheet Formulas and Functions, Part II

Using Functions in a Worksheet

- A formula can also contain a function.
  - A **function** is a shorthand way to write an equation that performs a calculation.
  - Functions simplify formulas that can otherwise be long and complex.
  - Excel includes a wide range of functions in many specialized areas; however, in this tutorial we will focus on only a few basic functions.

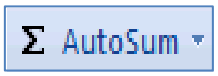
- A formula with a function contains three parts:
  - an = sign
  - a function name, and
  - at least one argument



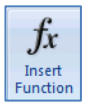
    - An **argument** is the value the function uses to perform a calculation, including a number, text, or a cell reference that acts as an operand.
    - The argument follows the function name and is enclosed in parentheses.
    - If a function contains more than one argument, the arguments are separated by commas.

- You can enter functions in a number of ways:
  - Use the Insert Function button on the Formula Bar. This opens the Insert Function dialog box.

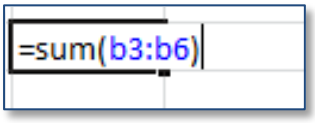
  - Click the arrow next to the Autosum button in the Editing group of the Home tab of the Ribbon to access common basic functions.



  - Click the Insert Function button on the Formulas tab of the Ribbon.



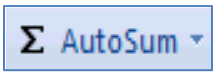
  - Enter the formula containing a function directly into the cell by typing the = sign, function name, and argument manually.



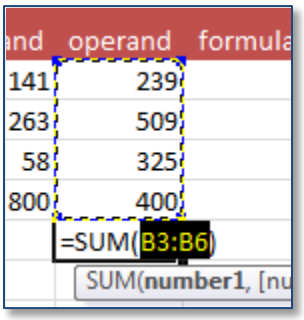
We will be using only five functions in this tutorial. A description of these functions are included in the table below.

FUNCTION	DESCRIPTION
Average	Returns the average (mean) of the numbers in the selected range of cells
Count	Returns the number of cells in the selected range that contain numbers
Maximum	Returns the largest number in the selected range of cells
Minimum	Returns the smallest number in the selected range of cells
Sum	Returns the total of the values stored in the selected range of cells

- Excel users often need to add long columns or rows of numbers. The **Sum** function makes this operation simple.
  - **Select** the **range** of cells that you want to total.
  - Click the **Autosum** button. *Excel will insert the total in the most logical cell.*



  - You may also use the **Sum** function *without preselecting* the cells you want to total.
    - Click in the cell in which you want the sum to appear to make it the active cell.
    - When you select the **Sum** function (click **Autosum** or access the **Insert Function dialog box** through one of the methods mentioned above), Excel scans the worksheet to determine the most logical adjacent column or row of cells with numbers to add.
    - An outline appears around the range of cells Excel has selected.
    - If you want to accept the selection, press **Enter**. You may also drag to select a *different* range of cells, and then press **Enter** to complete the formula.



  - The process for using the other common functions is basically the same.

Excel Activity 4.2 – Entering Formulas and Functions into a Worksheet

In this part of this activity, you will use functions to quickly perform long or complex calculations in a worksheet.

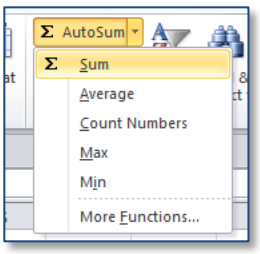
Lesson 4 Step-by-step – Part 2 (Functions)

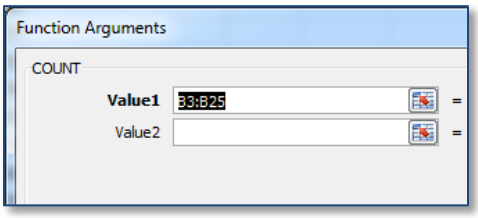
The following activity illustrates how to use formulas in a worksheet. You will evaluate test grade data contained in the worksheet.

What you do:	*What happens:*
1. Open **Excel**, if it is not already open. **2.** Click the **File Menu**, and then click **Open**. **3.** Open the L4 Part 2 Test data file from the **Excel** folder found in the **Documents Library** or other data file location specified by your instructor. **4.** Save the file as Test Grades *Your Name Block#* **in the Excel folder in Documents Library,** or other data file location specified by your instructor. **5.** Click Save.	The workbook will appear in the program window.

*Look at the worksheet, which lists all of the test scores that a group of students earned on a test. If we wanted to calculate the **average** (mean) score earned on the test by the group in the traditional way (with paper/pencil or a calculator), we would need to add all of the scores together, and then divide that total by the number of student scores we added together.*

*Even using Excel, if we did not have **functions**, our formula could become quite time-consuming to construct. We would need to write a formula that would add each of the values in column B together (B3 + B4 + B5 + B6 + B7 . . . etc.), and then indicate that the sum of those numbers should be divided by another number (the number of values added together – that we would have to count to determine ourselves). Using a couple of simple functions, we can perform this task much more quickly and effortlessly.*

6. Click on cell **B25**, where we want to calculate the sum of all of the scores. Click on the arrow next to the **Autosum** button, located in the **Editing** group on the **Home** tab. Choose **Sum**. **7.** These are the values that we want to sum, so press the **Enter** key to accept the selection.	Notice that all of the basic functions we will use are easily accessible through this button.  Excel scans the worksheet and determines that the most logical set of numbers to sum are those in the cells above in column B. Excel tried to "guess" which cells you want to add. The result **(1788)** displays in Cell B25. As shown in the **Formula Bar,** if you click on the cell again, the formula inserted in the cell is =SUM(B3:B24).

What you do:	*What happens:*
*We can also insert a function using the **Insert Function** button on the **Formula Bar**.*	
8. Click in cell **B26**, where we want to count the total number of scores that are recorded in the worksheet. Then, click on the **Insert Function** button on the **Formula Bar**. **9.** Choose **COUNT**, and then click on **OK.** **10.** The **Function Arguments dialog box** appears with a range reference selected in the **Value1** box. (This is the range of cells that Excel "guessed" that you wanted to count.) *The **Value1** argument is the range of cells you want to count.*	 The **Insert Function** dialog box appears, from which you can choose a variety of functions.  Again, Excel scans the worksheet for the most logical range of cells to count.
*Notice that this range includes cell B25, which contains the **SUM** function you just created, not one of the scores you want to count. You will need to change the range reference to exclude this cell.*	
11. Change the range reference in the **Value1** box to read **B3:B24**, and then click **OK**.	The value **22** appears in the cell, which is the **count** of the cells containing a value in the selected range. The formula for this cell, as shown in the Formula Bar, is =COUNT (B3:B24).
*Using the new values contained in cells **B25** and **B26**, we can create a formula to calculate the average test score: the Total of All Scores (**B25**) divided by the Number Taking Exam (**B26**).*	
12. Click in cell **D27**. Create the formula **=B25/B26**, and enter. **13.** Click in cell **B27**. Using either the **Autosum** button on the **Home** tab of the Ribbon or the **Insert Function** button on the **Formula Bar**, access the list of basic functions. **14.** Choose the **AVERAGE** function. Again you will need to correct the range reference to read **B3:B24**.	The formula returns the average test score of 81. This calculation is even easier using a function. The **AVERAGE** function returns the same average test score of **81** as the formula we created earlier. The formula for this cell, as shown in the **Formula Bar**, is =AVERAGE(B3:B24).
*To determine the **highest** value (in this case, the highest test score) in a range, we can use the **MAX** function.*	
15. Click in cell **B28**. **16.** Using either the **Autosum** button on the **Home** tab of the Ribbon or the **Insert Formula** button on the **Formula Bar**, access the list of basic functions. **17.** Choose the **MAX** function. Again you will need to correct the range reference to read **B3:B24**.	The **MAX** function returns the highest test score of **99**. The formula for this cell, as shown in the **Formula Bar**, is =MAX (B3:B24).

What you do:	*What happens:*
*To determine the **lowest** value (in this case, the lowest test score) in a range, we can use the **MIN** function.*	
18. Click in cell **B29**. **19.** Using either the **Autosum** button on the **Home** tab of the Ribbon or the **Insert Formula** button on the **Formula Bar**, access the list of basic functions. **20.** Choose the **MIN** function. Again you will need to correct the range reference to read **B3:B24**.	The **MIN** function returns the lowest test score of **59**. The formula for this cell, as shown in the **Formula Bar**, is =MIN (B3:B24).
21. Click the **Formulas** tab on the Ribbon. In the **Formula Auditing** group, click on the **Show Formulas** button. **22.** Add a **footer** to the worksheet (name/block at left, file name in center, date at right). **23.** Save. Follow your instructor's directions for submitting, printing, or checking your work	All formulas appear in the worksheet cells in place of the formula results.

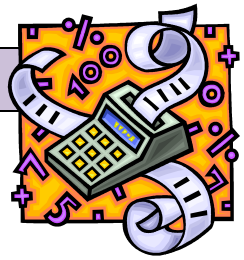
Your worksheet should now resemble the one below:

	A	B	C	D
1	Grades for Test 1			
2	Student	Score		
3	Abbott, K	74		
4	Beecham, M.	87		
5	Brooks, S.	91		
6	Carlos, M.	77		
7	Dunn, F.	59		
8	Fu, N.	76		
9	Gonzales, J.	92		
10	Johnson, L.	88		
11	Keller, S.	86		
12	Lanham, T.	74		
13	Nguyen, D.	71		
14	Oscar, W.	80		
15	Payne, D.	90		
16	Quinn, M.	99		
17	Rosen, H.	87		
18	Smith, A.	95		
19	Smith, J.	68		
20	Tabor, L.	66		
21	Thomas, J.	82		
22	Upton, M.	74		
23	Villareal, A.	84		
24	Young, S.	88		
25	Total of All Scores	=SUM(B3:B24)		
26	Number Taking Exam	=COUNT(B3:B24)		
27	Average	=AVERAGE(B3:B24)	Manual Average	=B25/B26
28	Highest	=MAX(B1:B24)		
29	Lowest	=MIN(B3:B24)		
30				

Sheet1 Sheet2 Sheet3

Ready

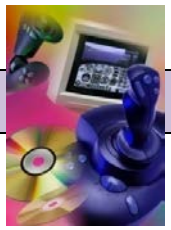
Excel On Your Own Project 4A – Results



The following activity is designed for you to practice the skills needed to make calculations in Excel worksheets by creating formulas.

Directions	Points Worth	Points Earned
1. Open the data file OYO Results from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO Results Your Name Block#. Be sure to save your work often!	5	
Enter **formulas** in the specified cells that perform the operations shown:		
2. C3 **Add** the values in cells **A3** and **B3**	5	
3. C4 **Subtract** the value in cell **B4** from the value in cell **A4**	5	
4. C5 **Multiply** the value in cell **A5** by the value in cell **B5**	5	
5. C6 **Divide** the value in cell **A6** by the value in cell **B6**	5	
6. B7 **Add** the values in cells **B3:B6**	10	
7. D3 **Add** the values in cells **A3** and **B3**, and **then multiply** the sum by **3**	10	
8. D4 **Add** the values in cells **A3** and **A4**, and **then multiply** the sum by cell **B3**	10	
9. D5 Using the **fill handle**, **copy** the **formula** in cell **D4** to cell **D5** *NOTE: The cell references change in the formula when you copy it to a new cell. When you copy a formula to another cell in a worksheet, it adjusts to perform the same function with the new cells around it.*	10	
10. D6 **Subtract** the value in **B6** from the value in **A6**, then **divide** the difference by **2.**	10	
11. D7 **Divide** the value in cell **A6** by **2**, and **then subtract** the value in **B6.**	10	
12. Save your work. Insert a **footer**. Enter your footer information (**Name/Block** at the left, **File Name** in the center, and **Current Date** at the right). Exit the footer	5	
13. Click on the **Show Formulas** button on the **Formulas** tab on the Ribbon so that your worksheet cells display the formulas entered rather than the results of the calculations.	10	
14. **Print Preview**. Check the worksheet carefully (check for footer, etc.) Follow your teacher's instructions for grading, submitting and/or printing the assignment. 15. SAVE **and Close** the file.		
Grade	100	

Excel On Your Own Project 4B – XBox



The following activity is designed for you to practice the skills needed to make calculations in Excel worksheets using functions.

You have a great new part time job at a local store that buys and sells new and used video games and accessories. You earn a commission (percentage) based on your sales. Your store manager has given you a worksheet showing the sales figures on each Xbox 360 item you have sold; you decide to evaluate your sales using Excel functions.

Directions	Points Worth	Points Earned
1. Open the data file OYO XBOX from the Excel folder located in the Documents Library (or wherever your data files are located). Save the file to the Excel folder in the Documents Library using the name OYO XBOX Your Name Block#. Be sure to save your work often!	5	
2. Replace the text in cell A2 with your first and last name.	5	
Enter functions in the specified cells that perform the operations shown:		
3. C22: Insert a SUM function that will return the sum of the values in the range C7:C21 (to show the total number of items you have sold).	8	
4. D22:Insert a SUM function that will return the sum of the values in the range D7:D21 (to show the total $ amount of the items you have sold).	8	
5. E22: Replace any existing formula in the cell with a SUM function that will return the sum of the values in the range E7:E21 (to show the total commission you have earned).	8	
6. C24: Insert a COUNT function that will return the number of cells containing values in the range C7:C21 (to show the number of different items you have sold).	8	
7. C25: Insert a MAX function that will return the highest value in the range C7:C21 (to show the highest quantity of a single item you have sold).	8	
8. C26: Insert a MAX function that will return the highest value in the range D7:D21 (to show the highest $ amount of a single item you have sold).	8	
9. C27: Insert a MIN function that will return the lowest value in the range C7:C21 (to show the lowest quantity of a single item you have sold).	8	
10. C28: Insert a MIN function that will return the lowest value in the range D7:D21 (to show the lowest $ amount of a single item you have sold).	8	
11. C29: Insert an AVERAGE function that will return the average of the values in the range D7:D21 (to show the average $ amount per item you have sold).	8	
12. C30: Insert an AVERAGE function that will return the average of the values in the range E7:E21 (to show the average commission per item you have sold).	8	
13. Save your work. Add the standard footer.	5	
14. Click on the Show Formulas button on the Formulas tab on the Ribbon so that your worksheet cells display the formulas entered rather than the results of the calculations.	5	
15. Print Preview. Follow your teacher's instructions for grading, submitting and/or printing the assignment.	0	
16. SAVE and Close the file.	0	
Grade	100	

Excel On Your Own Project 4C – Old Navy

The following activity is designed for you to practice the skills needed to make calculations in an Excel worksheet by inserting formulas and functions.

Gap® Inc. opened the first Old Navy® story in 1994 as a mission to offer affordable yet fashionable clothing and accessories for the whole family. The following activity illustrates how formulas and functions can be used in a worksheet – in this case to calculate percentages and sales totals for various departments at Old Navy®.

Directions	Points Worth	Points Earned
1. Open the data file OYO Old Navy from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO Old Navy Your Name Block#. **Be sure to save your work often!**		
*You will now include some calculations using formulas and functions. Compute the following **formulas**:*		
2. In cell C6, you will calculate the **TAX** on the sales amount. To do so, create a formula that will **multiply** the **SALES** amount of the department **(B6)** by **.07**	5	
3. Using the **fill handle, copy** the formula from cell **C6** into cells **C7:C25.**	5	
4. In cell D6, you will calculate the **sales TOTAL with tax**. To calculate this amount, you will create a formula that will **add** the **SALES** amount of the department **(B6)** to the **TAX (C6)**.	5	
5. **Copy** the formula from cell **D6** into cells **D7:D25**.	5	
6. In cell B27, calculate the **OVERALL TOTAL SALES** from all departments using the **SUM** function. *Make sure that the correct range of cells (B6:B25) is selected before accepting and entering the function.*	5	
7. Use a **SUM** function to calculate the totals for column **C** (**TAX**) in **cell** C27, and for column **D** (**TOTAL with tax**) in **cell** D27, checking each time to make sure that the correct range of cells (**C6:C25** and **D6:D25**) is selected.	5	
8. In cell E6, you will calculate the **% OF SALES** by the department. To do so, you will create a formula that will **divide** the **TOTAL** for the department **(D6)** by the **OVERALL TOTAL** with tax from all departments **(D27).**	5	
9. **Copy** the formula from cell **D6** into cell **D7**. Notice the error (#DIV/0!) that results. Why do we get an error? Read through the explanation on the back of this page.	5	
10. **Click** on cell **E6** to **select** it. In the **formula bar**, change the formula to read =D6/D27.	5	
11. Then, use the **fill handle** to **copy** the formula from cell **E6** into cells **E7:E25.**	5	
12. Use a **SUM** function to calculate the **total percentage** for column **E** (**% of Sales**) in **cell** E27. *Make sure that the correct range of cells (E6:E25) is selected before accepting and entering the function.*	5	

Evaluate *the sales information using some* ***functions****:*		
13. In cell B29, use a **COUNT** function to determine the number of departments listed. (*You cannot use a COUNT function on cells containing text, so you will use the cells in the SALES column B for this function.*)	5	
14. In cell B30, use a **MAX** function to determine the highest **SALES amount**.	5	
15. In cell B31, use a **MIN** function to determine the lowest **SALES amount**.	5	
16. In cell B32, use an **AVERAGE** function to determine the average **SALES amount**.	5	
17. In cell B33, use a **MAX** function to determine the highest **% of SALES**.	5	
18. In cell B34, use a **MIN** function to determine the smallest **% of SALES**.	5	
19. Change your **Orientation** to **Landscape** from the **Page Layout Ribbon**.	5	
20. Click on the **Show Formulas** button on the **Formulas** tab on the Ribbon so that your worksheet cells display the formulas entered rather than the results of the calculations.	5	
21. Save your work. Add the standard **footer**.	5	
22. **Print** Preview. Follow your teacher's instructions for grading, submitting and/or printing the assignment. 23. SAVE and Close the file.		
Grade	100	

Remember, when you copy and paste a formula from one cell to another, (by default) Excel does not copy the ***exact*** formula. Instead, the formula ***adjusts*** for the cells around it. For example, the formula from cell D6 (=B6+C6) changed to =B7+C7 when copied into cell D7 -- Excel performs the *same calculation* in the copied location, but *adjusts the formula* to use cell references ***relative*** to the new location.

Sometimes we do not want Excel to make this adjustment for us, like in the case of our error in step 9. When Excel adjusted the formula from cell D6 when we copied it into cell D7, it included an empty cell in the new formula, causing an error.

We can prevent errors like this by changing the cell reference in our formula to an absolute reference. An absolute reference does not adjust, but always stays the same when copied to a new location. To change a cell reference to make it absolute, add $ signs to the reference. For example, in steps 9 & 10, we will use the absolute cell reference D27 in place of the normal cell reference D27.

You may either type the $ signs, or use the F4 key to toggle through the various absolute reference options.

Excel On Your Own Project 4D – Digital Cameras

The following activity is designed for you to practice the skills needed to make calculations in an Excel worksheet by inserting formulas and functions, as well as skills learned earlier in the unit.

Best Buy® has become one of America's largest retailers of electronics, and is known for its knowledgeable staff and competitive prices. Electronics, such as digital cameras, are big sellers during the holiday season. Many retailers – including Best Buy® – run sales in November and December to attract holiday shoppers.

Directions	Points Worth	Points Earned
1. Open the data file OYO Digital Camera from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). Save the file to the **Excel** folder in the Documents Library using the name OYO Digital Camera Your Name Block#. Be sure to save your work often!		
2. **Delete** row 7.	1	
3. Change the **column widths** as follows: column A: 60.00; columns B, C, D, E & F: 12.00.	1	
4. Change the **row heights** as follows: row 1-19: 18.00; rows 20-27: 18.75 .	1	
5. **Merge & Center** cells A1:A3.	2	
6. *You are going to create an Best Buy logo to place in cell A1 using a shape and WordArt.* From the **Insert** tab of your Ribbon, choose **Shapes**. From the **Rectangles** section of the shapes gallery, choose the **Snip Same Side Corner Rectangle** shape (fourth shape in the section). 7. Drag in cell **A1** to create the shape. With the shape selected and the **Format** tab showing, locate the **Rotate** button in the **Arrange** group on the Ribbon. Choose **Rotate Left 90◦**	2	
8. With the shape still selected, locate the **Size** group on the **Format** tab. Change the **height** to 1.1 and the **width** to .7. 9. If necessary, drag the shape until it appears **vertically centered** and near the left edge of cell **A1**.	2	
10. On the Format tab, in the **Shape Styles** group, click on the **arrow** next to **Shape Fill**. Select **Yellow**. Click on the arrow next to the **Shape Outline** button, and select **Automatic (Black)**.	2	
11. Click in cell **B1**. On the **Insert** tab, in the **Text** group, click on the **WordArt** button. From the gallery of **WordArt styles**, choose the first style: **Fill -Text 2, Outline -Background 2**. 12. In the WordArt text box that appears, type **BEST** (hit the enter key, and then type) **BUY**. 13. Select the text you just typed, and change the **font** to size **20**. Click on the arrow next to the **Text Fill** button on the Format tab, and choose **Black**. Drag the WordArt to cell **A1** and **center** it **within the yellow shape**.	2	
14. Select cells **B2:E2**. **Merge Across**. Select the text and change to **font size 14**. **Merge Cells** for **A5:A6**; **Middle Align** cell **A5**.	2	

15. Select cell A6:A19. Increase Indent (one time).	2	
16. Select the range B7:F19. Again, Increase Indent (one time). Then, click on the Align Text Right button one time.	2	
17. Change cells A5:F19 to Calibri. Increase cells A5:F6 to font size 12, and cells A7:F19 to size 11.	2	
18. Select cells A5:F6 and apply fill color Yellow; select cells A7:F19, and apply fill color Aqua, Accent 5, Lighter 80%.	2	
19. With cells A5:F6 selected, apply Thick Box Border; select cells A7:F19, and again apply Thick Box Border.	2	
20. From the Page Layout group on the Page Setup tab, select Orientation Landscape, and Normal Margins.	2	
You will now include some calculations using formulas and functions. Compute the following formulas:		
21. In cell D7, you will calculate the SALE PRICE of each camera. To do so, create a formula that will subtract the DISCOUNT of the item (C7) from the LIST PRICE (B7) of the item.	5	
22. Using the fill handle, copy the formula from cell D7 into cells D8:D19. Choose Fill Without Formatting using the fill options button.	5	
23. In cell E7, you will calculate the SALES TAX. To calculate this amount, you will create a formula that will multiply the SALE PRICE of the item (D7) by 7% .	5	
24. Copy the formula from cell E7 into cells E8:E19. Choose Fill Without Formatting using the fill options button.	2	
25. In cell F7, you will calculate the FINAL PRICE of each camera. To do so, you will create a formula that will add the SALE PRICE of the item (D7) to the SALES TAX (E7) for the item.	5	
26. Copy the formula from cell F7 into cells F8:F19. Choose Fill Without Formatting using the fill options button.	2	
27. *If you decided to buy one of every camera that Best Buy® has in its inventory, what would it cost?*		
28. Select Row 20. Insert a row.	1	
29. Calculate the total original list price of all of the cameras using the (Auto)SUM function in cell B20.	2	
30. Use a SUM function to calculate the totals for column C (Discount) in cell C20, column D (Sale Price) in cell D20, column E (Sales Tax) in cell E20, and column F (Final Price) in cell F20.	5	
31. Select cells B20:F20. Change the number format to Currency. Increase Indent (one time).	2	
32. Select cell F20. Change to font color Aqua, Accent 5, Darker 25%. Apply Underline formatting. Increase to font size 11.	2	
Evaluate the pricing information using some functions:		
33. In cell B22, use a COUNT function to determine the number of cameras listed.	2	

34. In cell **B23**, use a **MAX** function to determine the highest final price.	2	
35. In cell **B24**, use a **MIN** function to determine the lowest final price.	2	
36. In cell **B25**, use an **AVERAGE** function to determine the average final price.	2	
37. In cell **B26**, use a **MAX** function to determine the largest discount.	2	
38. In cell **B27**, use a **MIN** function to determine the smallest discount.	2	
39. In cell **B28**, use an **AVERAGE** function to determine the average discount.	2	
40. Change the cells **B23:B28** to **Currency** format.	2	
41. Select a non-adjacent range containing cells **A5:B19** and **D5:D19**; *this range of cells contains the data you are going to chart*. Click on the **Insert** tab, and then choose **Bar** from the **Charts** group. Select **Clustered Bar in 3-D**.	2	
42. **Move** the chart to a **new sheet**; name the sheet **Bar Chart**.	2	
43. From the **Design** tab, apply **Chart Style 34** (second style in the fifth row) and **Chart Layout 8**.	2	
44. Click on the **Chart Title placeholder**. Type the new title: **Digital Cameras on Sale**.	1	
45. Click on the **Vertical Axis Title placeholder**. Type the new title: **Cameras**. Change the font size to **14** and apply **Bold** formatting.	1	
46. Click on the **Horizontal Axis title placeholder**, and **delete** it.	1	
47. Click on the **legend** to select it. Change to **font size 14** and apply **Bold** formatting.	1	
48. **Right-click** on the **Horizontal (Value) Axis**, and select **Format Axis**. In the **Format Axis dialog box**, select **Alignment**. Click on the **arrow** next to **Text direction**, and choose **Rotate all text 270°**. **Close**.	2	
49. Change the **font** size of the axis to **12** and apply **Bold** formatting.	1	
50. On the **Layout** tab, in the **Current Selection Group**, use the **Chart Elements box** to select the **Plot Area** of the chart. 51. When the **selection box** appears around the **plot area**, drag the **sizing handle** on the **bottom** edge of the plot area **slightly upwards** until all of the **values** in the **horizontal value axis** are completely **visible**.	2	
52. In the ribbon, in the **Current Selection Group**, use the **Chart Elements box** again to select the **Series "SALE PRICE"**. Click on the **Format Selection** button. 53. In the **Format Data Series dialog box**, select **Fill**. Choose **Solid fill**, and then choose **Yellow** from the color selector. **Close**.	2	
54. **Rename** Sheet 1 as **Camera Data**.	2	
55. Insert the standard **footers** on the **Bar Chart** and **Camera Data** sheets.	2	
56. Follow your teacher's instructions for grading, submitting and/or printing the assignment.		
57. Close the file.		
Grade	100	

Excel On Your Own Project 4E – MP3 Players

The following activity is designed for you to demonstrate your mastery of the Excel skills you have learned in this unit.

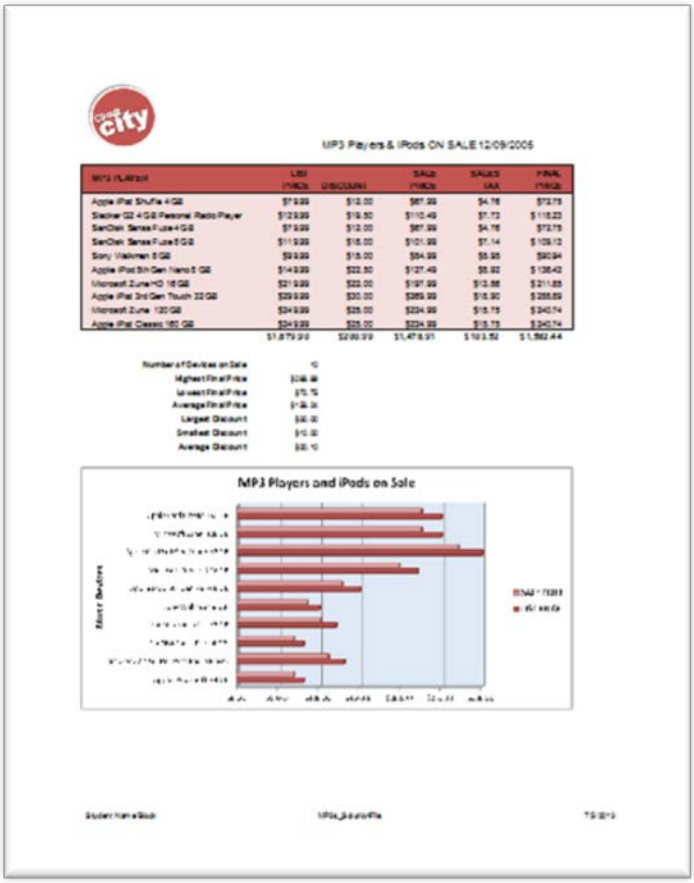
Electronics, such as MP3 players, are big sellers during the holiday season. Many retailers – including Circuit City® – run sales in November and December to attract holiday shoppers.

Directions	Points Worth	Points Earned
1. Open the data file OYO MP3s from the **Excel** folder located in the **Documents Library** (or wherever your data files are located). **Save** the file to the **Excel** folder in the Documents Library using the name OYO MP3s Your Name Block#. **Be sure to save your work often!**	2	
2. **Delete** row 4.	2	
3. Change the **column widths** as follows: **column A: 40.00; columns B, C, D, E & F: 14.00.**	2	
4. Change the **row heights** as follows: **rows 1 & 2: 45.00; rows 3-25: 18.00**	2	
5. **Merge & Center** cells **A1:A2.**	2	
You are going to create a Circuit City logo to place in cell A1 using a shape and WordArt.		
6. **Create** an **Oval** shape in cell **A1**. Change the **height** of the oval shape to **1.1** and the **width** to **1.1.** Drag the shape until it is **vertically centered** and near the left edge of cell **A1.**	2	
7. Apply the shape style **Light 1 Outline, Colored fill – Accent 2** to the oval.	2	
8. Apply the shape effect **Shadow**, and then choose **Offset Diagonal Top Left.**	2	
9. Click in cell **B1**. Insert a **WordArt** object; choose the style **Fill- White, Drop Shadow.** 10. Change the WordArt text to **city** in **Arial Black**, size **32.**	2	
11. Create a second WordArt object that reads **Circuit** using the same WordArt style in **Arial** size **12.**	2	
12. Rotate the WordArt text box using the rotate handle and arrange the two WordArt objects inside the circle so that your logo resembles the image at the right. 	2	
13. Select cells **C2:F2. Merge Across**. Change the text to **font size 14. Merge Cells** for **A4:A5**; **Middle Align** cell **A4.**	2	
14. Select cell **A4:A15. Increase Indent** (one time).	2	
15. Select the range **B6:F16**. Again, **Increase Indent** (one time). Then, click on the **Align Text Right** button one time.	2	
16. Increase cells **A4:F5** to font **size 12**, and cells **A6:F15** to **size 11.**	2	
17. Select cells **A4:F5;** apply **Bold** formatting and a **fill color: Red, Accent 2.**	2	
18. Select cells **A6:F15,** and apply **fill color: Red, Accent 2, Lighter 80%.**	2	
19. Apply a **Thick Box Border** around cells **A4:F5** and around cells **A6:F15.**	2	
20. Change the **Orientation** to **Portrait**, and **Margins** to **Normal.**	2	

*You will now include some calculations using formulas and functions. Compute the following **formulas**:*		
21. In cell **D6**, you will calculate the **SALE PRICE** of each camera. To do so, create a formula that will **subtract the DISCOUNT of the item (C6) from the LIST PRICE (B6) of the item**.	4	
22. **Fill** the formula from cell **D6** into cells **D7:D15**. Choose **Fill Without Formatting.**	2	
23. In cell **E6**, you will calculate the **SALES TAX**. To calculate this amount, you will create a formula that will **multiply the SALE PRICE of the item (D6) by 7%.**	4	
24. **Fill** the formula from cell **E6** into cells **E7:E15**. Choose **Fill Without Formatting.**	2	
25. In cell **F6**, you will calculate the **FINAL PRICE** of each MP3 player. To do so, you will create a formula that will **add the SALE PRICE of the item (D6) to the SALES TAX (E6) for the item.**	4	
26. **Fill** the formula from cell **F6** into cells **F7:F15**. Choose **Fill Without Formatting.**	2	
27. ***If you decided to buy one of every MP3 player and iPod that Circuit® has on sale, what would it cost?***		
28. Select **Row 17**. **Insert** a **row**.	2	
29. Calculate the **total** original list price of all of the MP3 Players using the **SUM** function in cell **B16.**	2	
30. Use a **SUM** function to calculate the totals for column **C** (**Discount**) in **cell C16**, column **D** (**Sale Price**) in **cell D16**, column **E** (**Sales Tax**) in **cell E16** ***(Replace any existing formula in this cell)***, and column **F** (**Final Price**) in **cell F16** ***(Replace any existing formula in this cell)***.	2	
31. Select cells **B16:F16.** Change the **number format** to **Currency**. Change to font size **12**, and apply **Bold** formatting.	2	
*Evaluate the pricing information using some **functions**:*		
32. In cell **B18**, use a **COUNT** function to determine the number of MP3 Players listed.	2	
33. In cell **B19**, use a **MAX** function to determine the highest final price.	2	
34. In cell **B20**, use a **MIN** function to determine the lowest final price.	2	
35. In cell **B21**, use an **AVERAGE** function to determine the average final price.	2	
36. In cell **B22**, use a **MAX** function to determine the largest discount.	2	
37. In cell **B23**, use a **MIN** function to determine the smallest discount.	2	
38. In cell **B24**, use an **AVERAGE** function to determine the average discount.	2	
39. Change the cells **B19:B24** to **Currency** format.	2	
Create a Bar Chart to represent MP3 Players and iPods on Sale.		
40. Select the non-adjacent ranges containing cells **A4:B15** and **D4:D15**; *this range of cells contains the data you are going to chart.* Insert a **Bar Chart;** select **Clustered Horizontal Cylinder**. 41. **Move & Resize** the chart until it fills cells **A26:F50**.	2	
42. Apply **Chart Style 36** and **Chart Layout 8**.	2	
43. Change the **Chart Title** to MP3 Players and iPods on Sale.	2	
44. Change the **Vertical Axis Title** to Music Devices in size **14.**	2	
45. Delete the **Horizontal Axis title placeholder**.	2	

46. Change the **Legend** to **font size 12** and **Bold**.	2	
47. In the **Current Selection Group** on the **Layout Tab**, use the **Chart Elements box** to select the **Walls**. Click on the **Format Selection** button. 48. In the **Format Walls dialog box**, select **Fill**. Choose **Solid fill**, and then choose **Blue, Accent 1, Lighter 80%**. **Close**. 49. Click off the chart to deselect it.	2	
50. **Clear** the **Print Area**	2	
51. In the **Scale to Fit** group, set the **Height** and **Width** both to **1 page**, if necessary.	2	
52. **Insert** the standard **footer** into the worksheet.	2	
53. **Print Preview**. Check the worksheet carefully (check for footer, one page, etc.). Follow your teacher's instructions for grading, submitting and/or printing. 54. Close the file.		
Grade	100	

Your worksheet should look similar to the one below when completed.



Excel On Your Own 4F Enrichment Activity

NFL FANTASY FOOTBALL

Fantasy Football is a game played by football fans in which participants draft their own team and compete with teams built by others. Fantasy Football allows fans to take an active, personal role in professional football, therefore increasing their enjoyment of the game. The fans get to create their own roster of players by drafting talent from the NFL teams. A draft is held, where all the league members get together with each other and draft 14-20 NFL players. At the end of the season, one owner emerges as the champion. Fantasy Football has been played for over 20 years, with an estimated 6-8 million fans involved. The following activity illustrates how spreadsheets can be used to calculate the points for the top fantasy players in the 2009 NFL season.

Directions	Points Worth	Points Earned
1. **Create a NEW** spreadsheet. **Save as** NFL Fantasy Your Name Block# to the **Excel folder** in your **Documents Library**.	2	
2. **Type the data** as shown BUT only choose your favorite FIVE players in EACH CATEGORY. **Font style**: Tahoma, **Font size**: 12.	5	
3. Widen the **width** of Columns A, B, C to **20.0** and **Left Align** each.	2	
4. **Bold cell A1** and change the **font size** to **16** point.	2	
5. **Bold row** 4.	2	
6. **Bold cells** A5 (QBs), A14 (RBs), and A24 (WRs).	2	
7. **Center align** columns C, D, E, F and G.	2	
Compute the PTS (Points) in each position. Since decimals are not allowed in the NFL Fantasy Football scoring system, the ROUNDDOWN function is required to round the answers to the nearest whole number (Num-digits=0). *The formulas for the first player in each position category are as follows*		
QUARTERBACKS: *every 20 yards of passing = 1 point; every touchdown pass = 2 points* Or PTS=(YARDS/20)+(TDS*2) 8. **In cell F5**, type a formula that **DIVIDES** yards by 20 then **ADDS** the number touchdowns **MULTIPLIED** by 2.	5	
9. **In cell G5,** use the **rounddown function** =Rounddown(PTS,0) by typing =Rounddown(F5,0)	5	
RUNNING BACKS: *every 10 yards rushing = 1 point; every touchdown scored = 4 points* Or PTS=(YARDS/10)+(TDS*4) 10. **In cell F11**, type a formula that **DIVIDES** yards by 10 then **ADDS** the number of touchdowns **MULTIPLIED** by 4.	5	
11. **In cell G11**, use the **rounddown function** =Rounddown(PTS,0) by typing =Rounddown(F11,0)	5	
WIDE RECEIVERS: *every 8 yards of receiving = 1 point; every touchdown caught = 5 points* Or PTS=(YARDS/8)+(TDS*5) 12. **In cell F17**, type a formula that **DIVIDES** yards by 8 then **ADDS** the number of touchdowns **MULTIPLIED** by 5.	5	

13. In cell G17, use the rounddown function type Rounddown(PTS,0) by typing =Rounddown(F17,0)	5	
14. Use the Fill handle to copy the formulas for the remaining four (4) players in each position.	2	
15. Name Sheet Tab 1 "Data".	2	
16. Choose one of the positions to create a 3D explode PIE CHART to illustrate how they compare to one another by choosing non-adjacent ranges (players) and (PTS RND DWN).	5	
17. Move the chart to a NEW SHEET named "3D Pie Chart".	2	
18. Choose a Chart Style of your choice and Chart Layout 6.	5	
19. Give appropriate titles in each of the placeholders.	2	
20. 15. Choose another one of the positions to create a 3D CLUSTERED COLUMN CHART to illustrate how they compare to one another by choosing non-adjacent ranges (players) and (PTS RND DWN).	5	
21. Move the chart to a NEW SHEET named "3D Column Chart".	2	
22. Choose a Chart Style of your choice and Chart Layout 9.	5	
23. Give appropriate titles in each of the placeholders. Delete the Legend.	2	
24. Choose the remaining one of the positions to create a 3-D CLUSTERED BAR CHART to illustrate how they compare to one another by choosing non-adjacent ranges (players) and (PTS RND DWN).	5	
25. Move the chart to a NEW SHEET named "3D Bar Chart".	2	
26. Choose a Chart Style of your choice and Chart Layout 8.	5	
27. Give appropriate titles in each of the placeholders. Delete the Legend.	2	
28. Insert a proper footer. PRINT PREVIEW your work. SAVE your file. Follow the instructor's directions for printing	5	
Grade	100	

NFL FANTASY FOOTBALL 2009 STATISTICS						
POSITION	PLAYER	TEAM	YARDS	TDS	PTS	PTS RND DWN
QUARTERBACKS	Tom Brady	NE	4398	28		
	Drew Brees	NO	4388	34		
	Brett Favre	MIN	4388	34		
	Peyton Manning	IND	4500	33		
	Aaron Rogers	GB	4434	30		
	Tony Romo	DAL	4483	26		
	Matt Schaub	HOU	4770	29		
RUNNING BACKS	Ryan Grant	GB	1253	11		
	Steven Jackson	STL	1416	4		
	Chris Johnson	TN	2006	14		
	Thomas Jones	NYJ	1402	14		
	Maurice Jones-Drew	JAC	1391	15		
	Adrian Peterson	MIN	1383	18		
	Ray Rice	BAL	1339	7		
WIDE RECEIVERS	Miles Austin	DAL	1320	11		
	Santonio Holmes	PIT	1248	5		
	Andre Johnson	HOU	1569	9		
	Randy Moss	NE	1264	13		
	Sidney Rice	MIN	1312	8		
	Reggie Wayne	IND	1264	10		
	Wes Walker	NE	1348	4		

Excel On Your Own 4G Enrichment – Balance Due Worksheet

Madison's Bright Ideas Store

You are a spreadsheet intern for Madison's Bright Ideas Store, a popular Denver-based light fixture store with outlets in major cities across the United States. You have been asked to use Excel to generate a report that summarizes the monthly balances due from customers. A graphic breakdown of the data is also desired. The customer data in the file at the end of this project are to be entered in the completed worksheet.

Directions	Points Worth	Points Earned
1. Start a new document. Save the file in the appropriate spreadsheet folder in your directory as Bright Ideas Your Name Block#.	2	
You will create a worksheet similar to the sample shown at the end of these instructions. Include the five columns of customer data in the report, plus two additional columns to compute the service charge.		
2. Enter the worksheet title Madison's Bright Ideas Store in cell A1 and the worksheet subtitle Monthly Balance Due Report in cell A2. Change the theme of the worksheet (on the Page Layout tab) to the Technic theme. Apply the Title cell style to cells A1 and A2. Change the font size in cell A1 to 28 points. One at a time, merge and center the worksheet title and subtitle across columns A - G. Change the background color of cells A1 and A2 to standard yellow. Draw a thick box border around the range A1:A2.	10	
3. Change the width of column A to 20.00 and B through G to 12.00. Change the heights of row 3 to 36.00 and row 12 to 30.00.	5	
4. Enter the column titles in row 3 and row titles in the range A11:A14 as shown in the sample. Apply Wrap Text & Center the column titles in the range A3:G3. Apply the Heading 3 cell style to the range A3:G3. Bold the titles in the range A11:A14. Apply the Total cell style to the range A11:G11. Change the font size of the cells in the range A3:G14 to 12.00.	5	
5. Enter the Customer Data shown into the range A4:E10.	5	
Use the following formulas to determine the service charge in column F and the new balance in column G for the first customer. Copy the two formulas down through the remaining customers.		
6. Service Charge = 2.75%*(Beginning Balance – Payments – Credits) (You must use the decimal equivalent of 2.75%, or 0.0275)	5	
7. New Balance = (Beginning Balance + Purchases) – (Credits + Payments) + Service Charge	5	
8. Enter the appropriate totals in Row 11.	5	
9. Determine the maximum, minimum, and average values in cells B12:B14 for the range B4:B10 and then copy the range B12:B14 to C12:G14.	10	

10. Assign the Accounting style format to the cells containing numeric data in ranges **B4:G4** and **B11:G14** and assign the Currency with no dollar sign to the range **B5:G10**.	2	
11. Use **Conditional Formatting** to change the formatting to white font on a red background in any cell in the range **C4:C10** that contains a value greater than **50**. (Directions below)	10	
On the **Home** tab of the Ribbon, in the **Styles group, Conditional Formatting**. Then choose **New Rule > "Format only cells that contain**." In the "**Edit the Rule Description**" area click the box arrow in the second box and select "**Greater than**." Type "**50**" in the right-most box. Then click the **Format** button, click the **correct fill color** and **text color**. OK, OK to set the Style.		
12. Change the worksheet name to "**Balance Due**."	2	
13. Design a logo, or add clipart to represent a logo, for Madison Bright Ideas, and add it to the left of your main title.	10	
14. Change page **orientation** to **Landscape** and **Center horizontally** on the page.	5	
15. Create a **Cylinder chart** with **Clustered Horizontal Cyli**nder shape showing each customer's name and new balance due. **Move** the chart to its own chart sheet called "**Cylinder Chart**."	10	
16. Change the **Chart area** to **Gold, Accent 2, Lighter 80%.**	2	
17. Place the **Chart Title "Balance Due**" above the Chart. No horizontal or vertical title, or legend are needed. (You can delete unneeded items if a layout does not match exactly.)	2	
18. Save your worksheet. Add the proper footer on both the **Chart Sheet** and the **Balance Due** worksheet. Follow the instructor's directions for printing or submitting.	5	
Grade	100	

Customer	Beginning Balance	Credits	Payments	Purchases
Costa, Dan	160.68	18.7	99.33	68.28
Hernandez, Abraham	138.11	48.47	75.81	46.72
McCartan, John	820.15	32.11	31.23	29.19
Paoli, Pam	167.35	59.32	52.91	33.9
Ramirez, Alberto	568.34	55.17	18.53	36.34
Vaughn, Noah	449.92	25.9	82.05	99.77

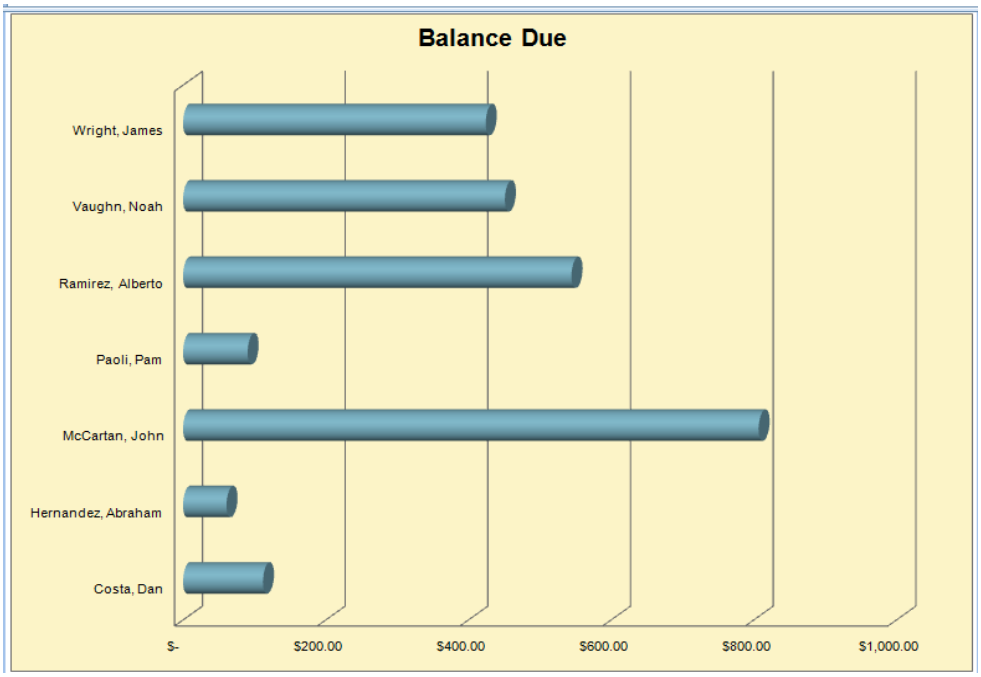
Customer Information

Solution Final Product Worksheet

Madison's Bright Ideas Store

Monthly Balance Due Report

Customer	Beginning Balance	Credits	Payments	Purchases	Service Charge	New Balance
Costa, Dan	$ 160.68	$ 18.70	$ 99.33	$ 68.28	$ 1.17	$ 112.10
Hernandez, Abraham	138.11	48.47	75.81	46.72	0.38	60.93
McCartan, John	820.15	32.11	31.23	29.19	20.81	806.81
Paoli, Pam	167.35	59.32	52.91	33.90	1.52	90.54
Ramirez, Albert	568.34	55.17	18.53	36.34	13.60	544.58
Vaughn, Noah	449.92	25.90	82.05	99.77	9.40	451.14
Wright, James	390.73	48.12	19.35	92.13	8.89	424.28
Totals	**$ 2,695.28**	**$ 287.79**	**$ 379.21**	**$ 406.33**	**$ 55.78**	**$ 2,490.39**
Highest	$ 820.15	$ 59.32	$ 99.33	$ 99.77	$ 20.81	$ 806.81
Lowest	$ 138.11	$ 18.70	$ 18.53	$ 29.19	$ 0.38	$ 60.93
Average	$ 385.04	$ 41.11	$ 54.17	$ 58.05	$ 7.97	$ 355.77



Cylinder Chart