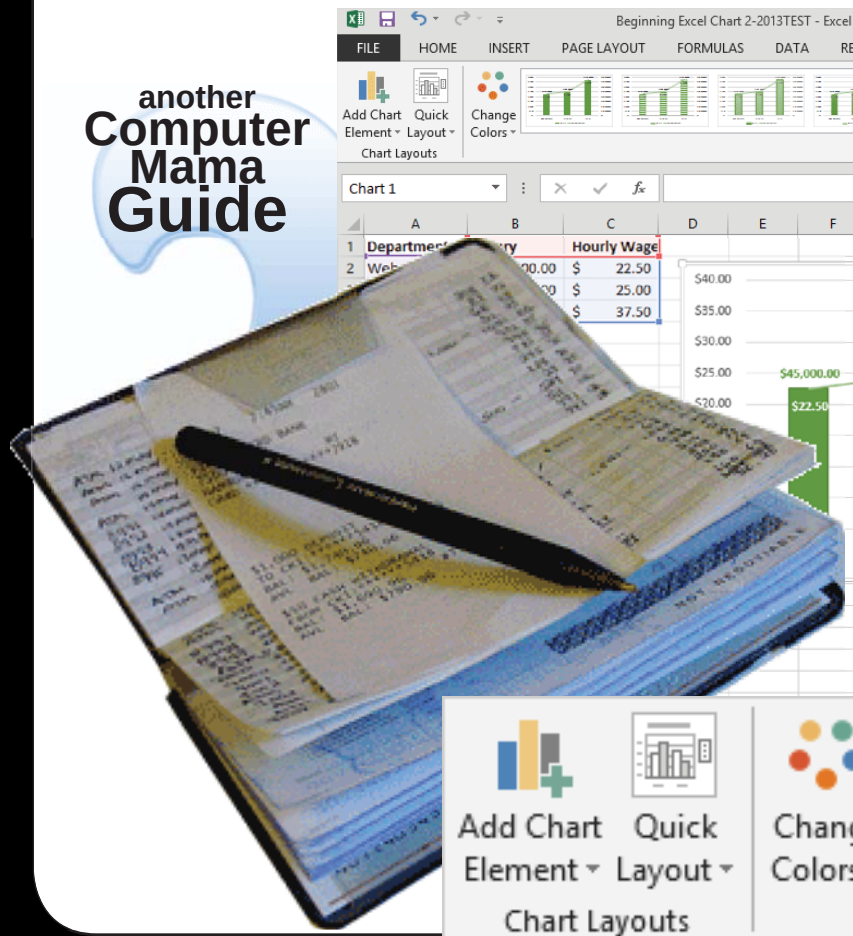
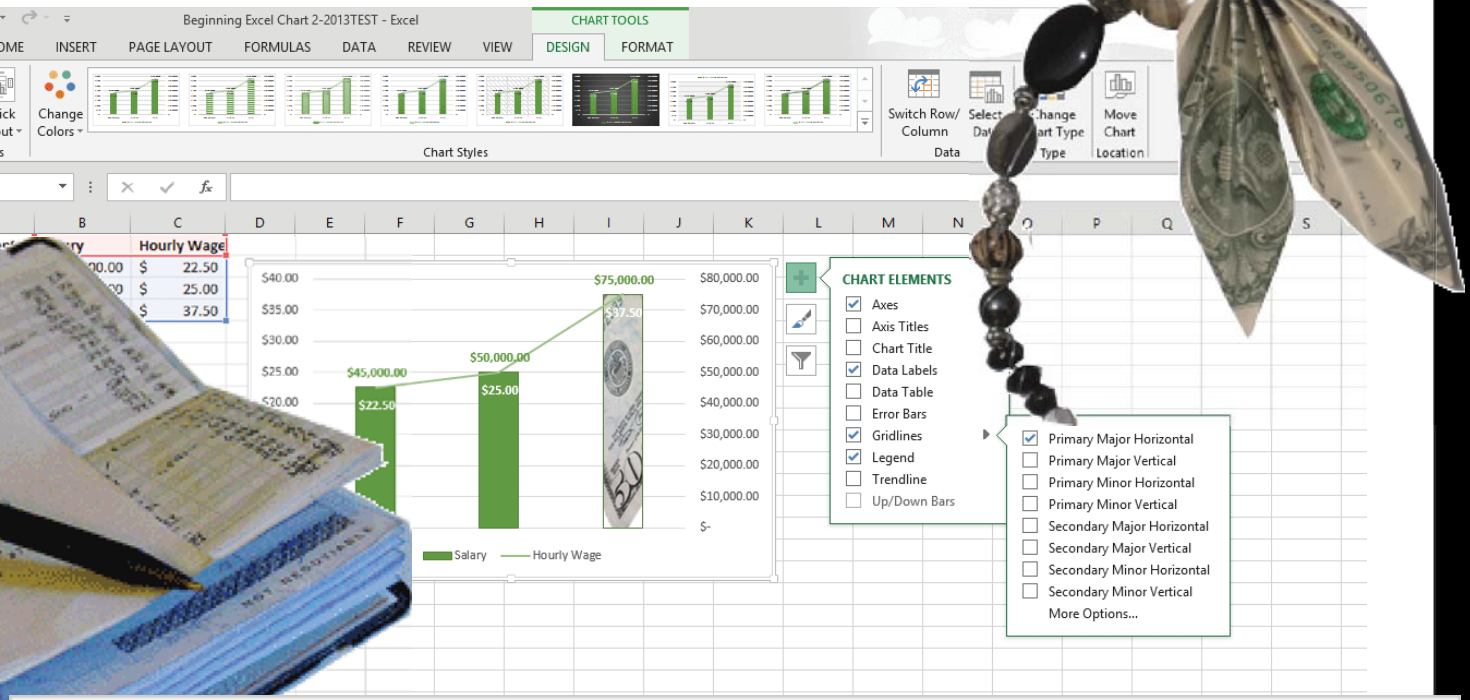
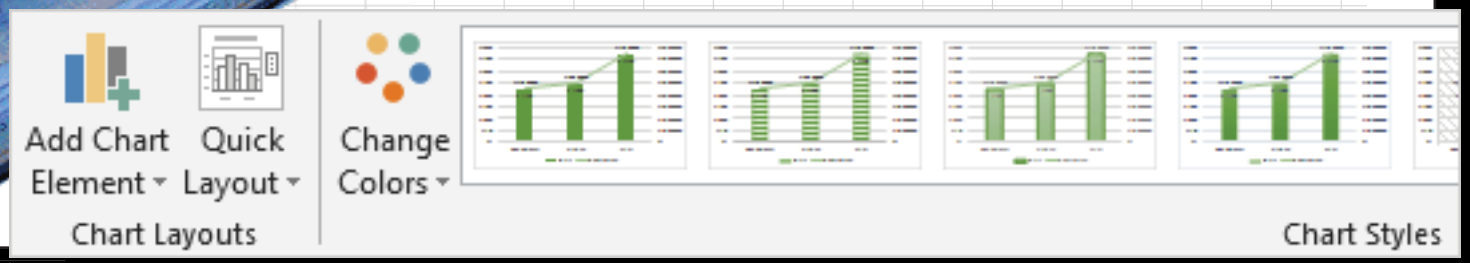
The **Beginning** Guide to
Microsoft Excel 2013

Microsoft Office Specialist Exam 77-420 Study Guide

another Computer Mama Guide







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Office

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another
Computer
Mama
Guide

The Beginning Guide to Microsoft Excel 2013

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Beginning Guide to Microsoft Excel 2013

Chapter 1: Getting Started
Take 1: Getting Started, page 11
Welcome, page 12
Take an online quiz, page 17
Submit your work, page 18

Take 2: Hello, Excel!, page 25
Objectives and Menu Map, page 26
No Practice Activity
Test Yourself, page 50

Chapter 2: Working With Data
Take 1: It All Adds Up, page 49
Objectives and Menu Map, page 50
Practice, page 77
Test Yourself, page 78

Take 2: A Question of Balance, page 79
Objectives and Menu Map, page 80
No Practice Activity
Test Yourself, page 102

Chapter 3: Presenting the Data Visually
Take 1: Charts and Chart Tools, page 103
Objectives and Menu Map, page 104
Practice, page 139
Test Yourself, page 140

Take 2: Picture the Data, *page 141*
Objectives and Menu Map, page 142
Practice, page 165
Test Yourself, page 166

Take 3: Shapes, SmartArt Views, page 167
Objectives and Menu Map, page 168
Practice, page 213
Test Yourself, page 214

Beginning Excel Skill Test, page 215

Microsoft Excel 2010 Study Guide, page 7
Index, page 217



Microsoft Office Specialist Certification



What is Microsoft Office Specialist Certification? Microsoft Office Specialist certification validates through the use of exams that you have obtained specific skill sets within the applicable Microsoft Office programs and other Microsoft programs included in the Microsoft Office Specialist Program. The candidate can choose which exam(s) they want to take according to which skills they want to validate.

CertiPort is the premier provider for validating technology skills.

The **Microsoft Office Specialist** tests are offered at authorized testing centers.

For more information on the MOS exam topics or to find a testing center near you please contact: www.certiport.com

What is the Microsoft Office Specialist Certification Program?

The **Microsoft Office Specialist (MOS) Certification Program** enables candidates to show that they have something exceptional to offer – proven expertise in Microsoft Office programs. Recognized by businesses and schools around the world, millions of certifications have been obtained in over 100 different countries. The **Microsoft Office Specialist (MOS) Certification Program** is the only Microsoft-approved certification program of its kind.

The Microsoft Office Specialist Certification Series



Core Certification: Pass any 1 test:
Word 2013 Core: Exam 77-418
Excel® 2013 Core: Exam 77-420
PowerPoint® 2013: Exam 77-422
Outlook® 2013: Exam 77-423
Access® 2013: Exam 77-424



Expert Certification: Pass either test:
Word 2013 Expert Part 1: Exam 77-425
Word 2013 Expert Part 2: Exam 77-426
Excel 2013 Expert Part 1: Exam 77-427
Excel 2013 Expert Part 2: Exam 77-428



Master: Pass 3 required and 1 elective test:
Required
Word 2013 Expert Part 1: Exam 77-425
Excel 2013 Expert Part 1: Exam 77-427
PowerPoint® 2013: Exam 77-422

Elective
Outlook® 2013: Exam 77-423 or
Access® 2013: Exam 77-424

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The Benefits of Certification



For More Information:
www.certiport.com
www.microsoft.com

Why Get Certified?

For employers, the certification provides skill-verification tools that not only help assess a person's skills in using Microsoft Office programs but also the ability to quickly complete on-the-job tasks across multiple programs in the Microsoft Office system. (http://www.microsoft.com/learning/en/us/certification/mos.aspx). Certification proves a certain level of advanced competency with the programs in question. Employers don't have to wonder if the skills stated on the resume are honest and without exaggeration. This can lead to further employment opportunities and increased pay.

A person holding Microsoft Office Certification shows not just a level of skill, but an ability to quickly complete tasks, due to familiarity with the program and its many time-saving features. The hard work that goes into learning Microsoft Office programs to the level of proficiency necessary for successful completion of the Certification Exams also indicates a desire on behalf of the student to learn and succeed.

The Benefits: Earn More, Find Jobs Quicker

Research indicates that employees with Microsoft Certification earn more and find jobs quicker than those employees without certification. Furthermore, employees with certification report a greater feeling of confidence. These things translate into greater job satisfaction. (http://www.microsoft.com/learning/en/us/certification/mos.aspx)

Research also shows that individuals with certification make up to 12% more than those without certification. In addition, 82% of Microsoft Office Specialists report a salary increase after receiving certification. Managers like the skills proven and the ability demonstrated by those with Microsoft Office Certifications.
http://www.certiport.com/Portal/desktopdefault.aspx?page=common/pagelibrary/mos2003.html

About Our Certification Program



Books in this Series:
Beginning Guide to Microsoft® Excel 2013

Intermediate Guide to Microsoft® Excel 2013

Advanced Guide to Microsoft® Excel 2013

Microsoft Office Specialist (MOS) Certification for Excel 2013
Overview: Our Microsoft Office Specialist certification program for Excel 2013 has three levels of mastery: Beginning, Intermediate and Advanced. In general, the CORE exam topics are demonstrated in the Beginning and Intermediate Guides. EXPERT concepts are included where relevant, with the Advanced Guide only covering EXPERT concepts

Our Approach: In designing these Guides, we found that it made more sense to write the lessons based on the Ribbons and Tasks. For example, the Beginning Guide to Microsoft Excel 2013 shows all of the Chart Tools: CORE and EXPERT. The beginning of each lesson provides an overview of the Ribbons and Tasks covered.

The Beginning Guide to Microsoft Excel 2013 demonstrates the following Ribbons: **Home**, **Formula**, **Insert**, **Picture Tools, Drawing Tool, SmartArt Tools: Design**, **Chart Tools, Chart Tools: Layout: Labels** The lesson activities focus on basic data and formula entry as well as inserting and formatting graphics and charts.

The Intermediate Guide to Microsoft Excel 2013 demonstrates the following Ribbons: **Formulas, Page Layout, Insert**, **Sparkline Tools**. The lesson activities focus on additional formulas as well as page options, finishing with the use of Sparklines.

The Advanced Guide to Microsoft Excel 2013 demonstrates the following Ribbons: **Table Tools, Table Tools, Data**, **PivotTable Tools**: **Design, PivotTable Tools: Options**, **PivotChart Tools: Design**, **PivotChart Tools: Analyze**, **Review**, **Developer.** The lesson activities further explore presentation with advanced Table options as well as PivotCharts and PivotTables, finishing with sharing and form controls.

Course Prerequisites: Students who enroll in Microsoft Office Specialist (MOS) program should have basic computer skills including how to turn on the computer, how to use an Internet browser and how to select commands from a menu. Students should know how to save files and send attachments by E-mail as well.

Microsoft Excel 2013 Study Guide: Beginning Excel

Microsoft Office Specialist (MOS): Exam 77-420 for Excel 2013

1. Create Worksheets and Workbooks
1.1 Create Worksheets and Workbooks
Create New Blank Workbooks, Pg 27

1.3 Format Worksheets and Workbooks
Change Row Height and Column Width, Pg 30

1.4 Customize Options and Views for Worksheets and Workbooks
Hide Rows and Columns, Pg 60
Workbook Views: Change Views, Pg 192
Workbook Views: Zoom, Pg 196
Workbook Views: Freeze Panes, Pg 198
Workbook Views: Split the Window, Pg 197

1.5 Configure Worksheets and Workbooks to Print Or Save
Save: Maintain Backward Compatibility, Pg 73

2. Create Cells and Ranges
2.1 Insert Data In Cells and Ranges
Copy and Paste Data, Pg 38
Expand Data Across Columns, Pg 36
Cells: Insert and Delete Cells, Pg 62

2. Create Cells and Ranges
2.2 Format Cells and Ranges
Cells: Merge Cells, Pg 36
Cells: Modify Alignment, Indentation, Pg 34
Cells: Modify Font and Font Styles, Pg 31
Cells: Use the Format Painter, Pg 63
Cells: Wrap Text Within Cells, Pg 37
Cells: Apply Number Formatting, Pg 54
Cells: Apply Highlighting, Pg 33
Cells: Apply Cell Style, Pg 67

4. Apply formulas and Functions
4.2 Summarize Data with Functions
Function: SUMIF, Pg 57
Function: MIN and MAX, Pg 93
Function: COUNT, Pg 92
Function: AVERAGE, Pg 90

5. Create Charts and Objects
5.1 Create a Chart
Charts: Create a Chart, Pg 107
Charts: Add Additional Data Series, Pg 133

5.2 Format a Chart
Charts: Add Legend, Pg 132
Charts: format Layout and Styles, Pg 110

5.3 Insert and format an Object
Text: Insert Text Box, Pg 170
SmartArt: Insert SmartArt, Pg 179
Illustrations: Insert Pictures, Pg 145
Illustrations: Format Borders, Pg 149
Illustrations: Apply Styles and Effects, Pg 148
Illustrations: Change Object Color, Pg 171
Illustrations: Modify Object Properties, Pg 150
Illustrations: Position Objects (SmartArt), Pg 187

From Exam 77-428 Excel 2013 Expert Part 2
2. Apply Custom Formats and Layouts
2.3 Apply Custom Styles and Templates
Cell Styles

4. Create Advanced Charts And Tables
4.1 Create Advanced Chart Elements
Charts: Add Trendlines
Charts: Dual Axes



About the Authors

Microsoft Office Specialist (MOS): The Beginning Guide to Microsoft Excel 2013

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Elizabeth is the Computer Mama. She developed the teaching methodology in the Complete Computer Guide series using breakthrough research in gender-balanced training. Elizabeth has taught several thousand men and women from government, manufacturing, small business, and education in both online and hands-on classrooms.

She is the author of the Complete Computer Guides as well as a Microsoft Certified Office Specialist. She earned a BA in Biology from the University of Michigan.

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For more than 20 years, Alex has made complex technology easy to understand. Alex has developed instructional multimedia software for educational websites including the Sounds of English, a linguistics- training tool that earned a ComputerWorld/Smithsonian Laureate.

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Clair has a Graduate Certificate in Educational Media and Technology, a program that explored ways to infuse technology into the learning experience so that learning is interactive. She has earned Microsoft Office Master Certification. She also holds a BS in Secondary English Education from Eastern Michigan University.

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Leo is a Microsoft Certified Professional and an Access database designer. He uses his exemplary attention to detail for copy editing the computer instructions for accuracy and clarity.

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Jeanette has years of experience as an office manager, including the increasing use of computer-related tasks. Her excellent attention to detail has lead her to work as an Access database administrator and a copy editor.

All of my books

are dedicated to

Fr. Paul Cummings

who taught me

computers.

Love, eBeth

How To Use This Guide

Microsoft Office Specialist Certification Training

The Comma Method
Observation is a perceptual strategy that asks: why am I doing this and which tools would be most effective? Each lesson begins with a discussion of the purpose and the objectives.

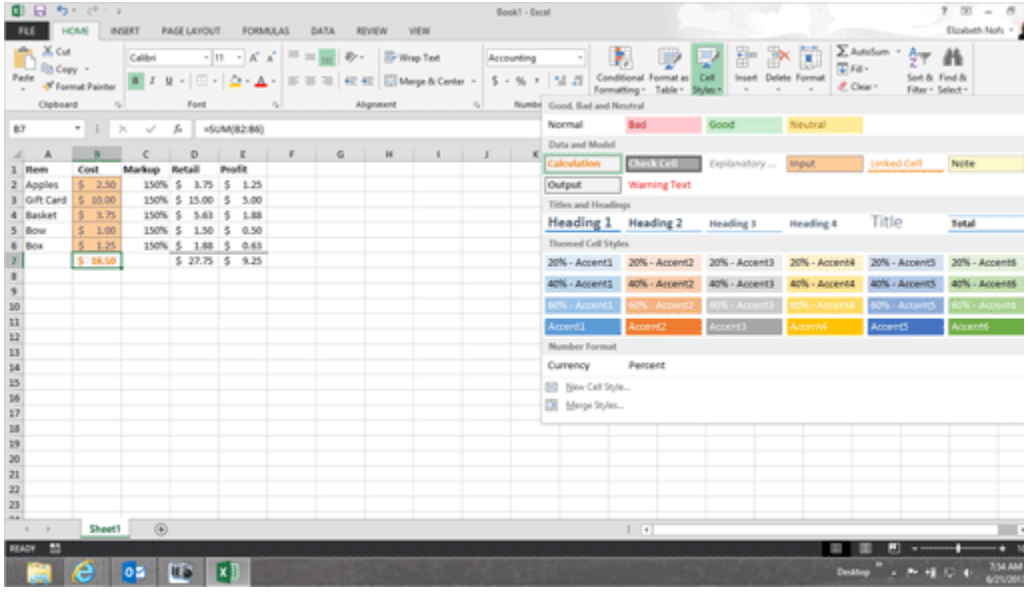
Orientation helps students start at the right place. The screen shots in the *Complete Compute Guides* show the entire window as well as a close up of the particular button or command.

Notation There are "breadcrumbs" above each screen image. Like Hansel and Gretel, the breadcrumbs show the pathway to a button or option. Our notation uses the following convention:
Ribbon->Group->Button->Options

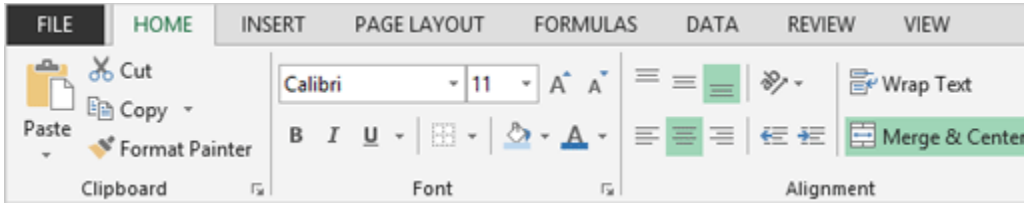
Menu Maps
The Comma Method recognizes that there is a difference in how men and women navigate the menus. Men typically have the ability to see the map first. This method of acquiring knowledge is called *Breadth-first*. [1] Women tend to work with the details first. They learn several commands, such as copy, cut, and paste, then they put those concepts under the label, “edit.” This method of learning is called *Depth-first*.

The Comma Method uses menu mapping to assist men and women to see both the Breadth and the Depth. An example of the menu map is can be seen here.

[1] *Ford, Nigel, Sherry Chen, Matching/mismatching revisited: An Empirical Study of Learning and Teaching Styles. British Journal of Educational Technology v.32 no1 (Jan. 2001)*



Home-> Alignment->Merge & Center

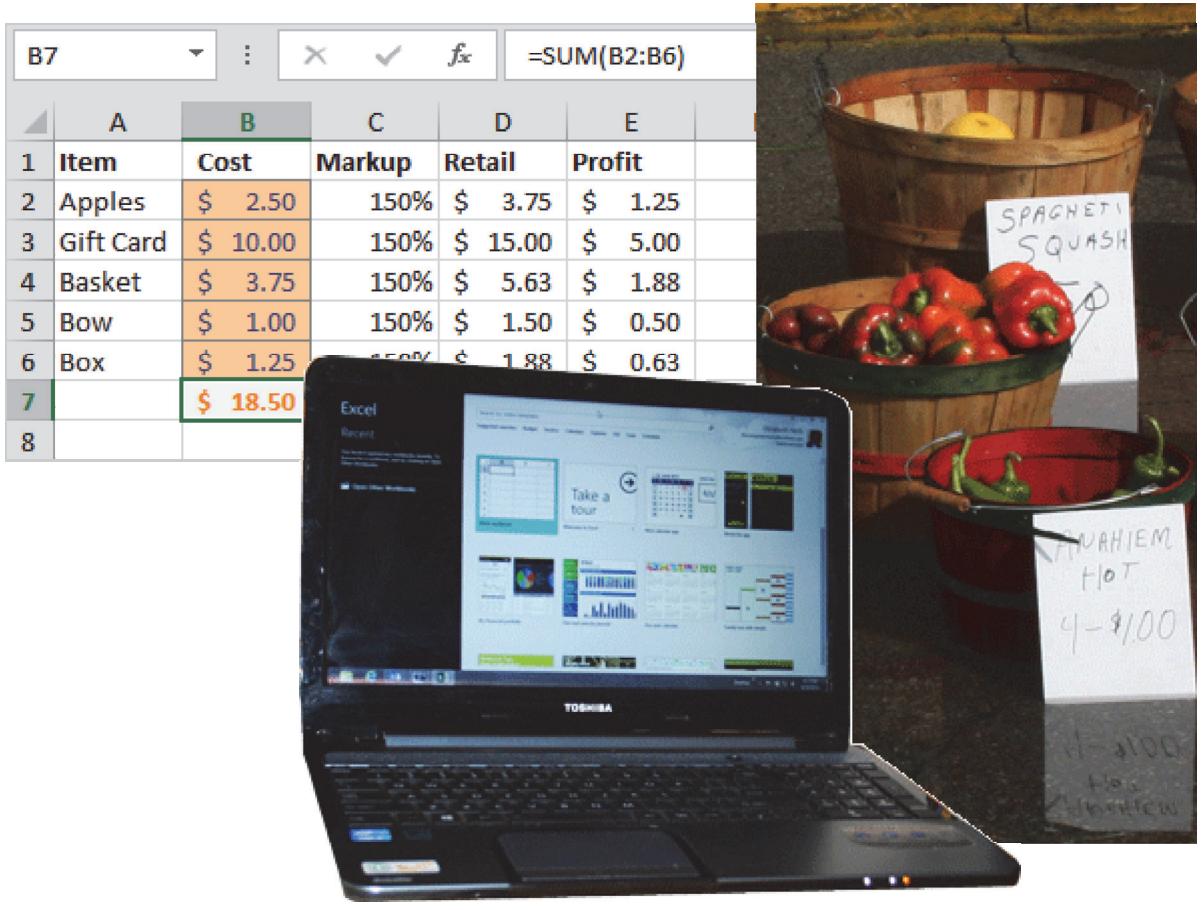


Welcome!

Course Objectives

Students will be able to:

1. Log in to the online course
2. Navigate the outline and lessons
3. Take quizzes online
4. Submit assignments online
5. Participate in the Forums and Chat



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Welcome

This course presents a practical, hands-on approach to computers. The lessons are based on what you see on the screen, what you can do with the options, and what works on the job. The goal is to enable you to use Microsoft Windows and Office 2013 effectively, even creatively.

Use this *Guide* as part of your professional development plan to prepare for the Microsoft Business Certification exams, Microsoft Office Specialist (MOS) or as a reference book to solve problems as they come up.

This introduction provides information on:
- Navigation
- Practice
- Sample Documents
- Assessments



Take One

Log into the course

This online course requires a User Name and Password. You probably received an E-mail with your username and password when you enrolled.

How to Login
Go to the website for your course.
1. Click on the (Login) link.
2. You will be prompted for your Username and Password.

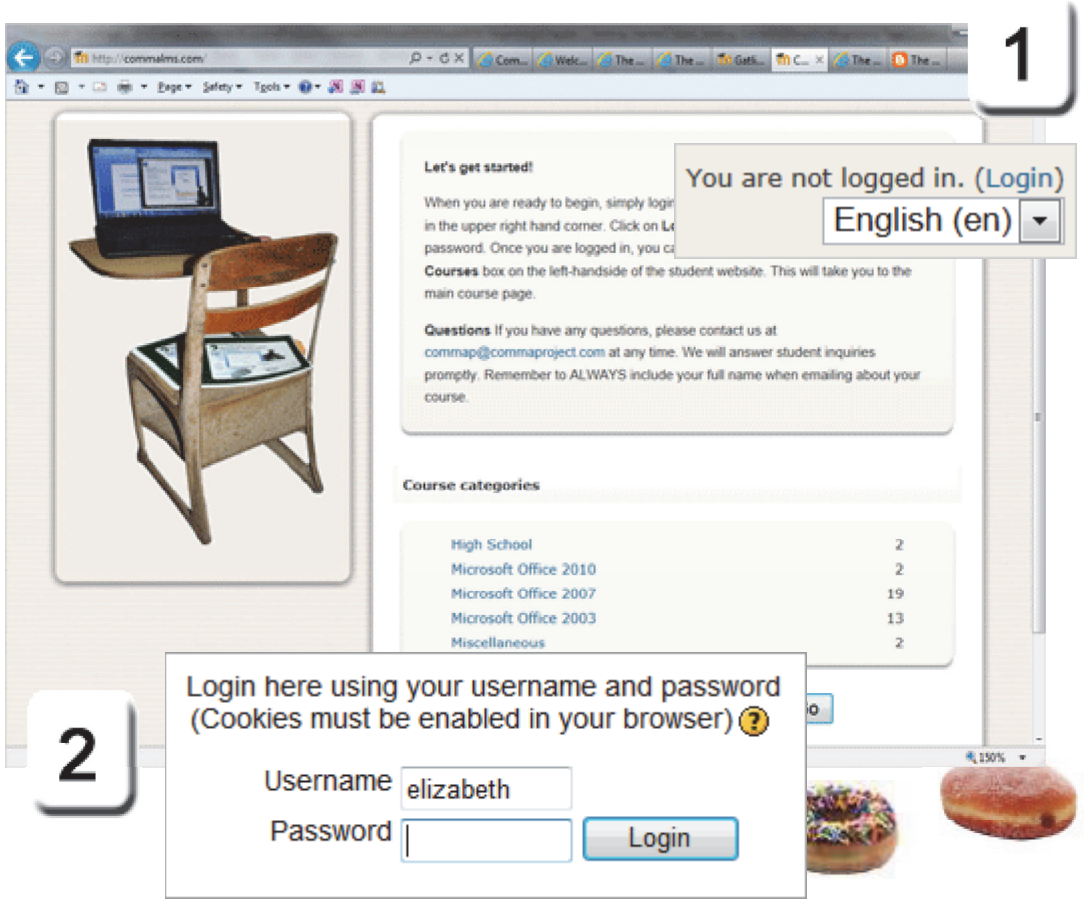
What If This Doesn't Work?
First, look at the keyboard and make sure the Caps Lock is off (no light) Passwords may include both upper and lower case letters.

Second, check the spelling. Your user name may not be exactly the same as your E-mail address.

Third, you can click on the Live Chat and get immediate assistance.

Memo to Self: It's OK if your computer does not match exactly. The logon screen may show a logo or it may be a different color.

My Course ->Login



Take One

The Topic Outline

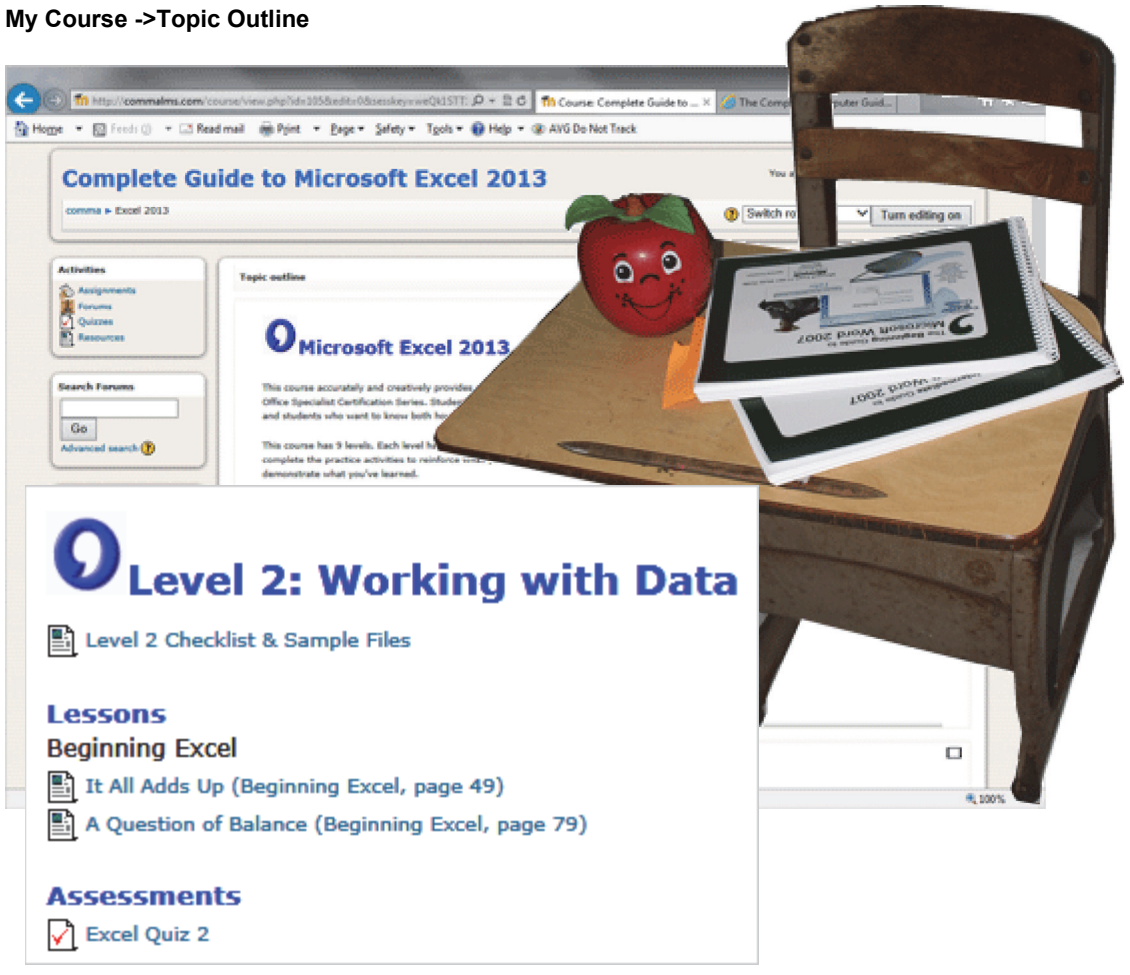
When you log into your course, you should see the **Topic Outline**. The Topic Outline is a course syllabus: it lists your lessons, practice and quizzes.

Each Level has Lessons and Assessments. The lesson links are short discussions that demonstrate the options on a particular Ribbon. The lessons links may also list the page number where these pages can be found in the print version of the computer guides.

Many students prefer to read the lessons on a second monitor or in print, rather than switch from the lesson screens to Microsoft Office to practice the options.

Memo to Self: It's OK if your computer does not match exactly. The important part is learning the steps. Please contact your facilitator if you have any questions

My Course ->Topic Outline



Lesson Links

When you click on a hyperlink to read a lesson, a new window will open.

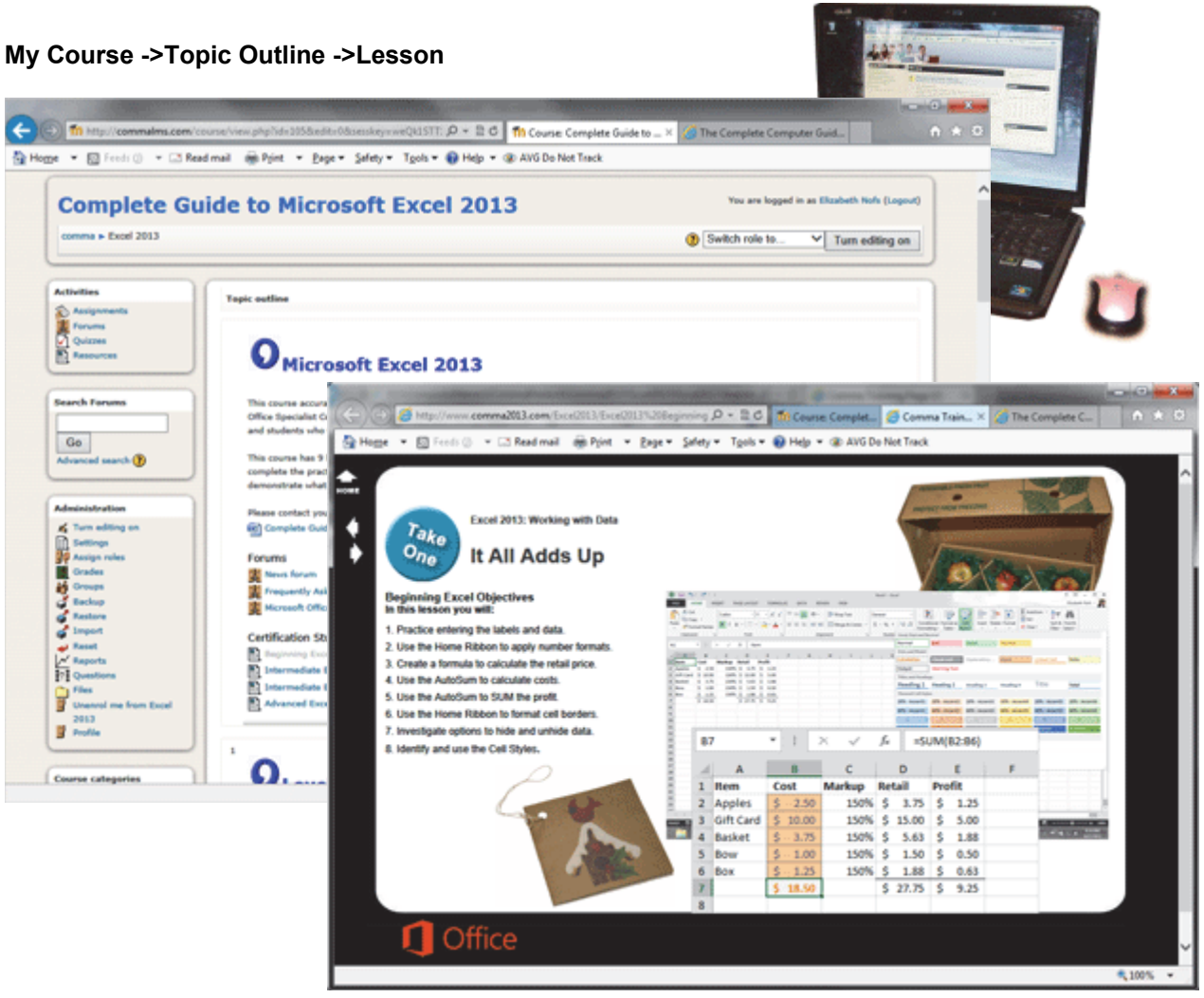
What Do You See? On the left side of each screen you should see the white navigation arrows: Next, Previous, and Home

What Else Do You See? When you are done with a lesson, you can close the browser window. Go to the upper right corner of the lesson window and click on the X to Exit.



The Topic Outline should be there, the window was left open behind the lesson screen.

My Course ->Topic Outline ->Lesson



Take One

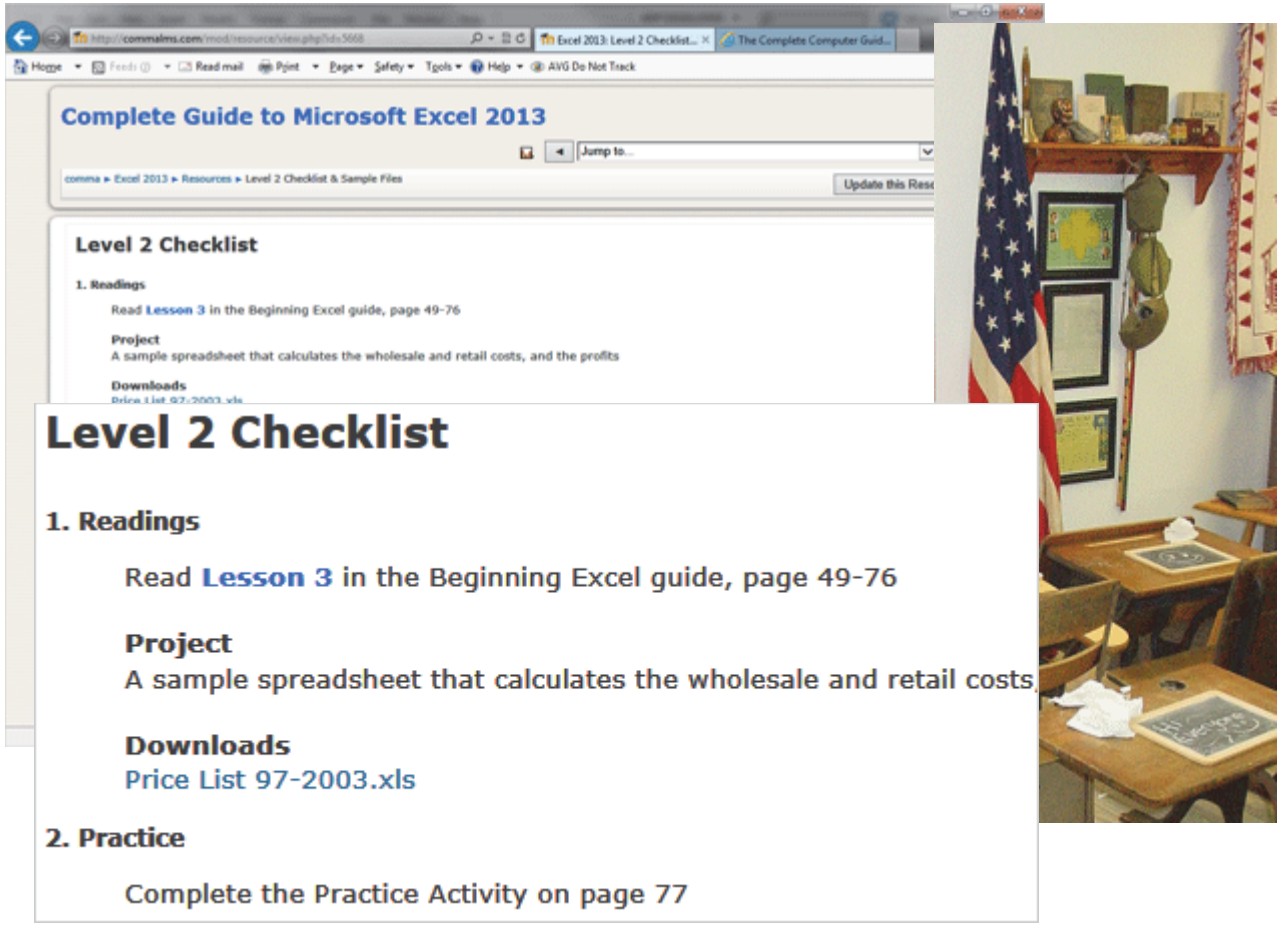
My Course ->Topic Outline -> Level Checklist

Level Checklists & Sample Files

Each Level has many lessons, sample files and practice sheets, depending on which course you are in. The **Level Checklists** offer a complete list of the lessons, downloads, practices and quizzes.

Downloads
When you click on a link to a Download, you will be prompted to **Open** or **Save** this file.
Click on **Save.**
Browse to your Documents folder.
This will save a copy of the file on your computer.

Memo to Self: It's OK if your Checklist does not match exactly. Please contact your facilitator if you have any questions



Take One

Take a Quiz Online

After you review the materials online or with the *Guides*, you can log into the course online and take a **Quiz**. This is an open book quiz. You are allowed to look up the answers in your notes, online, or in the computer *Guides*.

Review the Quiz Buttons
Submit: This button posts your answer for the current question.

Save without submitting: This button saves your answers. You can leave the quiz and finish it later.

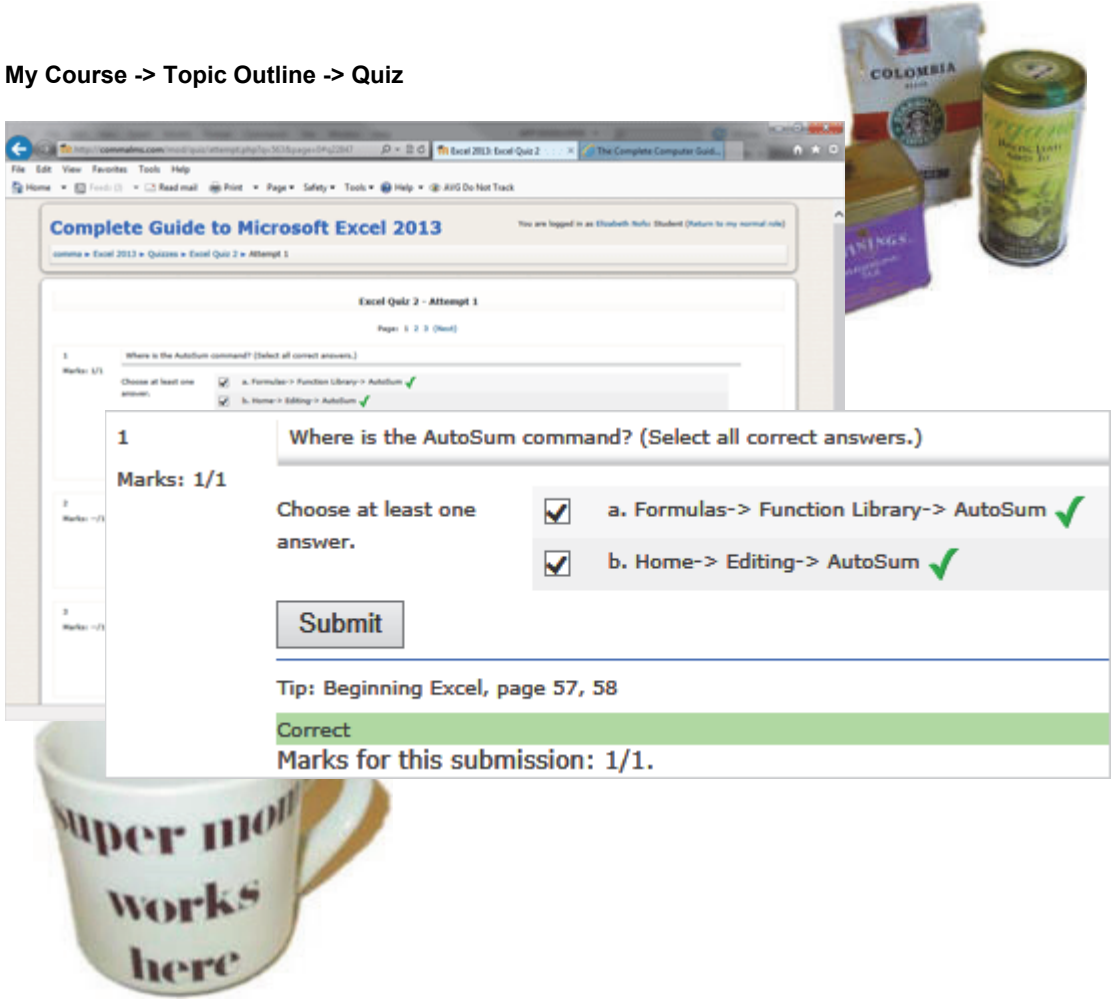
Save without submitting

Submit page: This button sends your answers to all questions on the page.

Submit all and finish: Use this button to finish the quiz and submit your quiz online. When you Submit all and finish, you cannot go back and print your answers. So, print first!

Submit all and finish

My Course -> Topic Outline -> Quiz



Take One

Submit Your Work

Most of our online courses ask you to upload a document or a spreadsheet. Here are the steps you can take when you are ready to submit your work.

Review This: Upload a file

1. Go to the **Topic Outline**.
Click on **Beginning Excel Skill Test.**

What Do You See? You will be taken to the Upload screen. The instructions should be available.

2. Click on **Browse** to select the file you want to upload. Navigate to your file, then click **Open**. The path and file name will appear in the upload box.

3. Click **Upload this file** to submit your Skill Test online. Your instructor will be notified automatically.

My Course -> Topic Outline -> Upload a file



Memo to Self: There may be a maximum size to this assignment. Some examples, say your richly illustrated PowerPoint slide shows, may be too big. If so, please contact your instructor.

My Course ->Topic Outline -> Forums

Use the Forums

In an online class, a **Forum** is similar to raising your hand and asking a question. When you post a question to a Forum anyone can reply with a suggestion or comment. Some of the answers are very creative and useful.

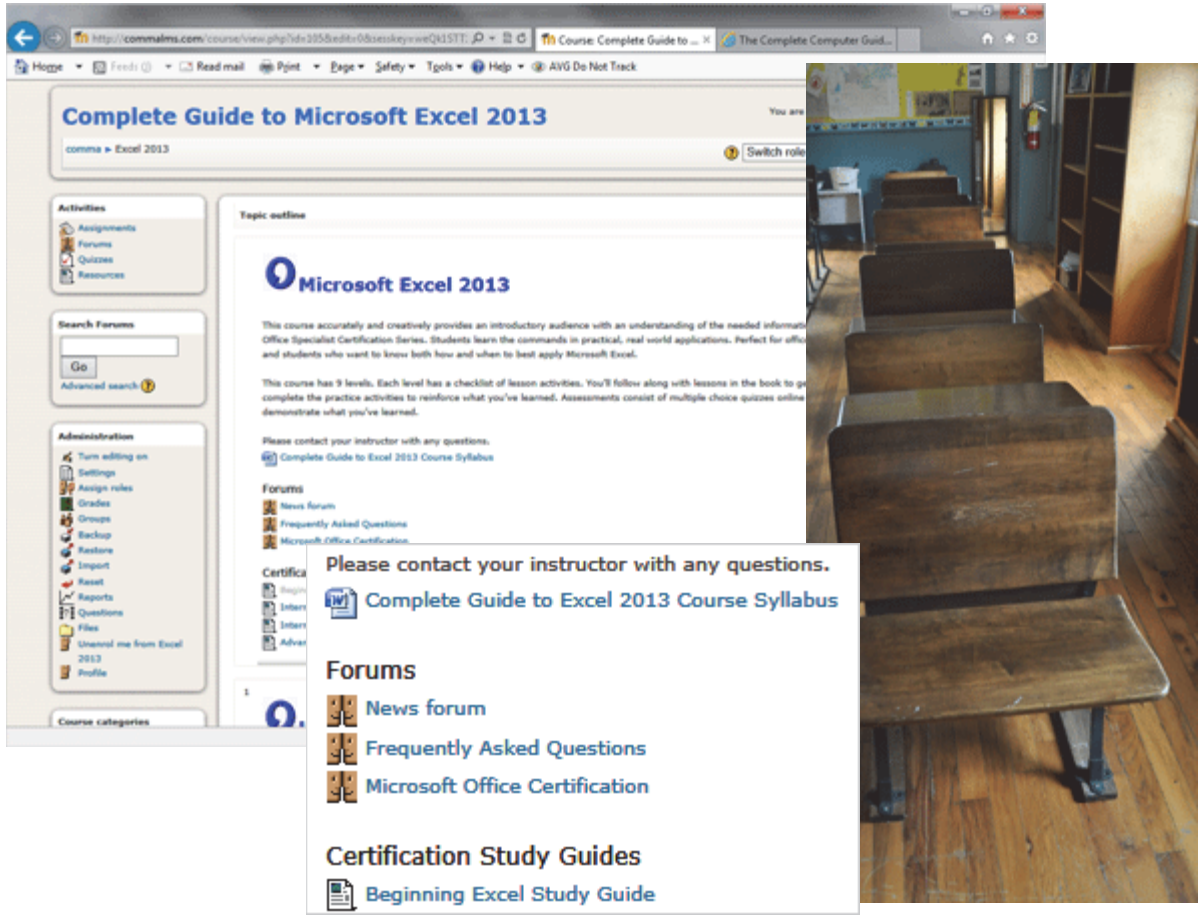
Your instructor may also post an explanation or offer additional links.

Edit | Delete | Reply

Live Chats

Many instructors keep Office Hours. Chat allows you to type questions online and get an answer immediately from your instructor when your instructor is in the office.

Don't Explain and Don't Complain: Please keep your posts professional and on topic!



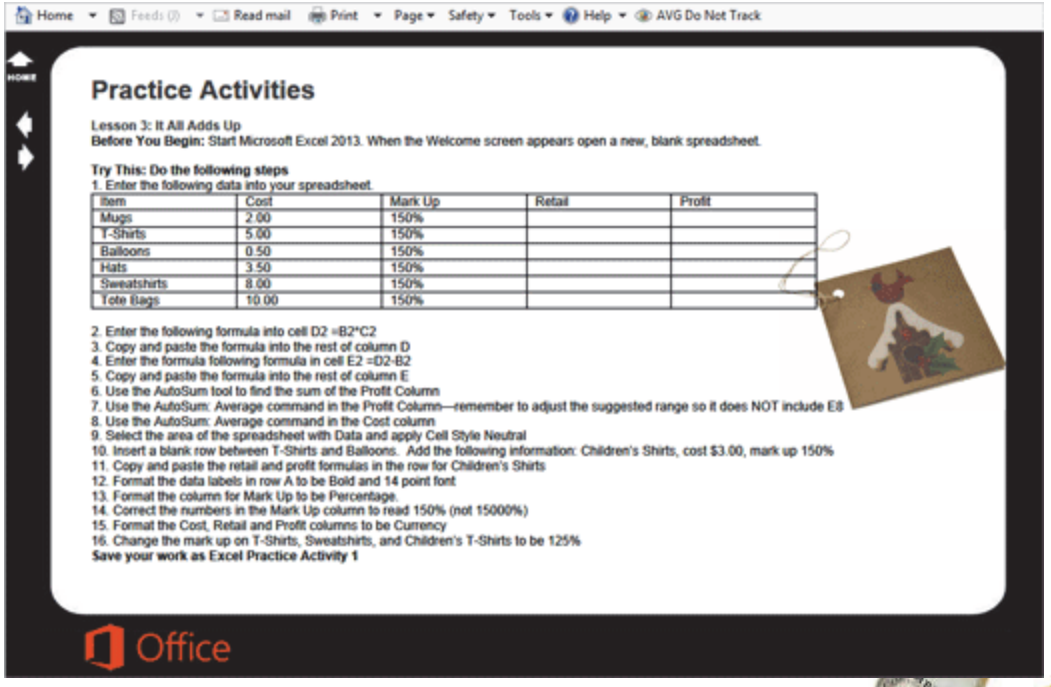
Practice

This *Guide* offers additional reference materials and practice certification tests. You can use the multiple choice quizzes and skill tests to practice if you wish. When you are ready, please log into the course and do the assessments online.

The Microsoft certification tests are timed: you have to perform the process steps very quickly and efficiently in order to pass.
That takes practice!

More Practice

If you have a question about a document or file you are working on, you are always welcome to E-mail a copy of your work to your instructor as an attachment.



Take One

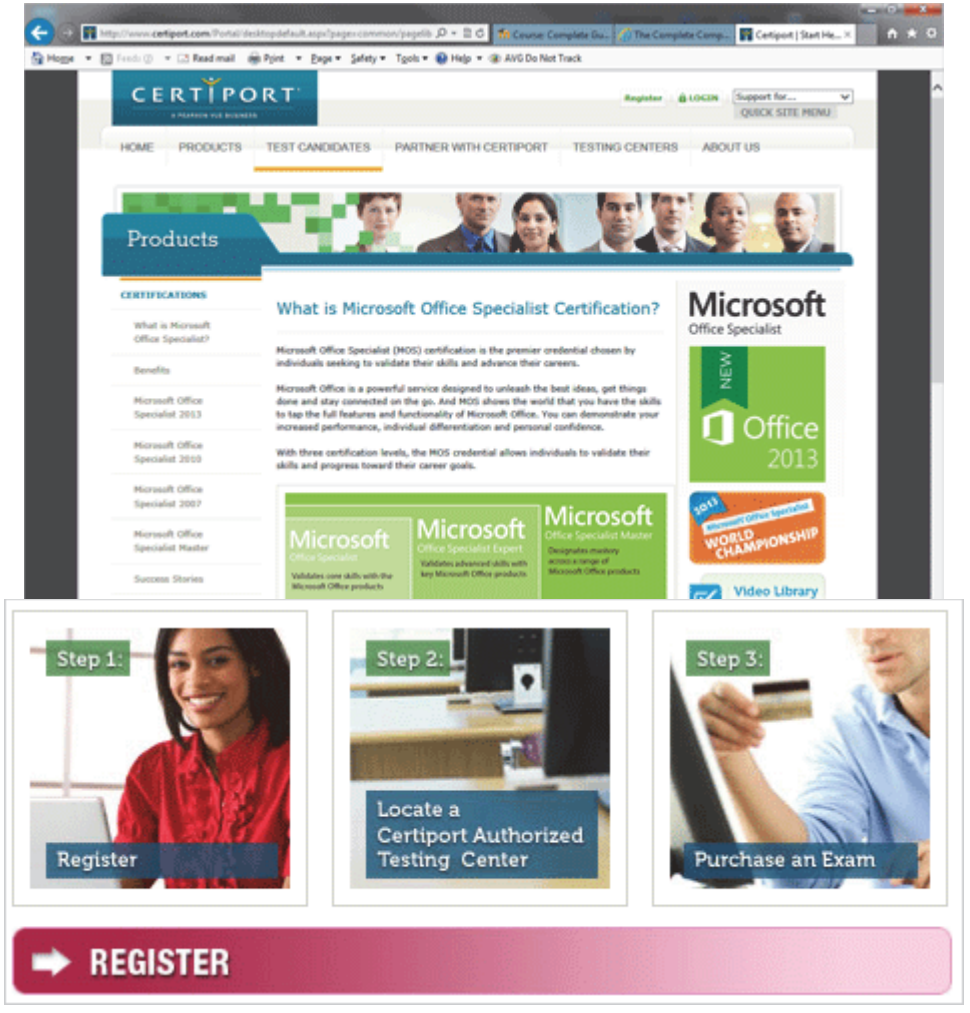
Microsoft Business Certification

The course prepares you to pass the **Microsoft Office Specialist (MOS)** certification exams. This credential recognizes the business skills needed to get the most out of Microsoft Office. Microsoft Certification Exams are available through authorized testing centers. They are not included as part of the certification training program in the same way that taking the Bar Exam is not included with getting a degree in Law from a college or university.

More Information Online

Certiport provides the official Microsoft certification tests. You can download the Microsoft certification topics and study guides. Here is their address: www.certiport.com.

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Can Microsoft Office 2007 or Office 2010 be used for the Office 2013 lessons?

It is best if the Microsoft Office software matches the screens in the lessons. Microsoft Office has grown and evolved. If you compare the Ribbons and Menus you will notice that Office 2007 has lots of old parts from Office 97-2003. So, how different are they? Many steps and functions have not changed. For example, in Microsoft Excel, the Formulas still work and they are entered the same way. However, Excel 2013 has been updated to work on any device: PC, laptop, tablet or phone. The menus are clean with lots of room if you have a touch screen.

Compare Microsoft Excel 2007, 2010 and 2013:

Microsoft Excel 2007: It All Adds Up

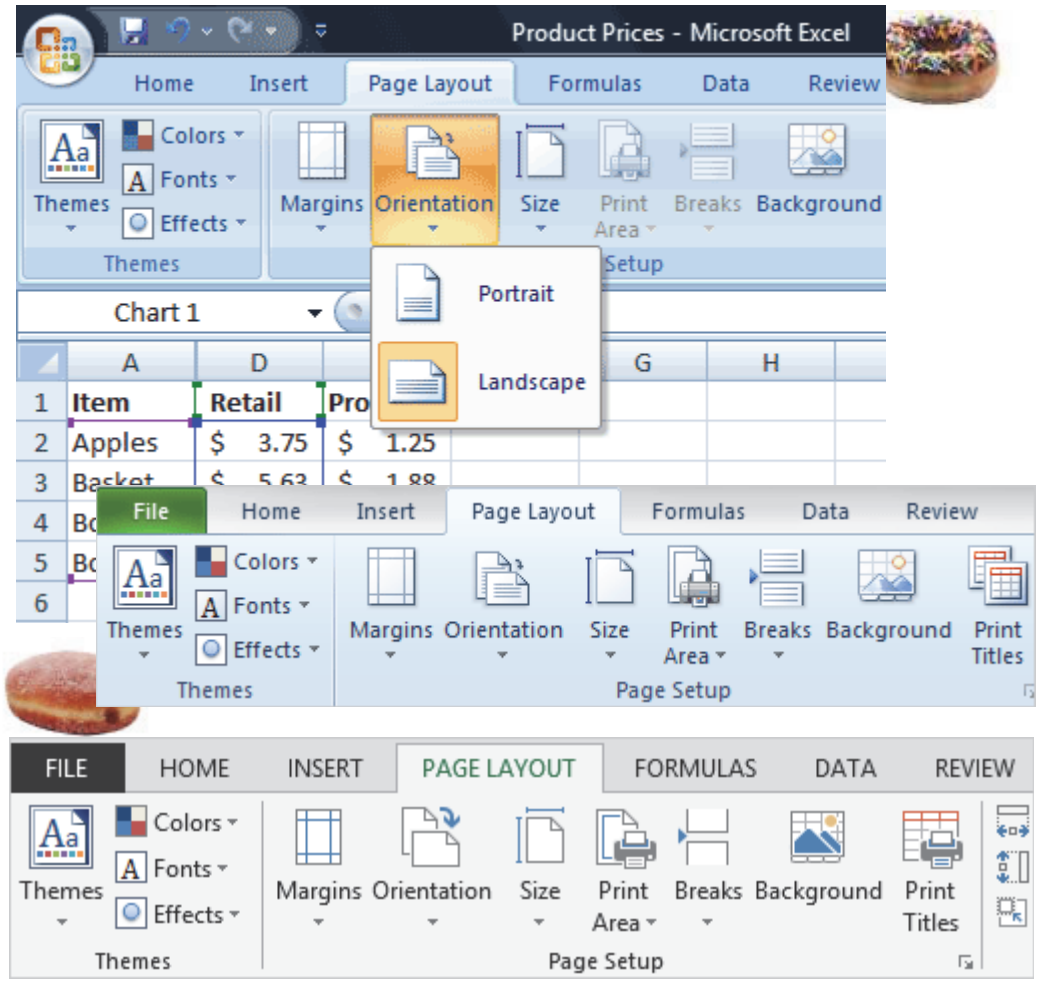
Microsoft Excel 2010: A Question of Balance

Microsoft Excel 2013: Charts and Chart Tools

Please Note: This course cannot be taken with the Microsoft Office Starter software:

View an image of Word 2010 Starter

View an image of Excel 2010 Starter



Self-Assessment

Skill Level-Beginning Excel	Mastered	Needs Work	Required for my job
Select rows, columns, and cells			
Edit text and numbers in a cell			
AutoFill a series			
Create a graph with the Chart Wizard			
Add numbers with the AutoSum tool			
Calculate a simple equation “by hand”			
Sort data in a list			
Print a spreadsheet			

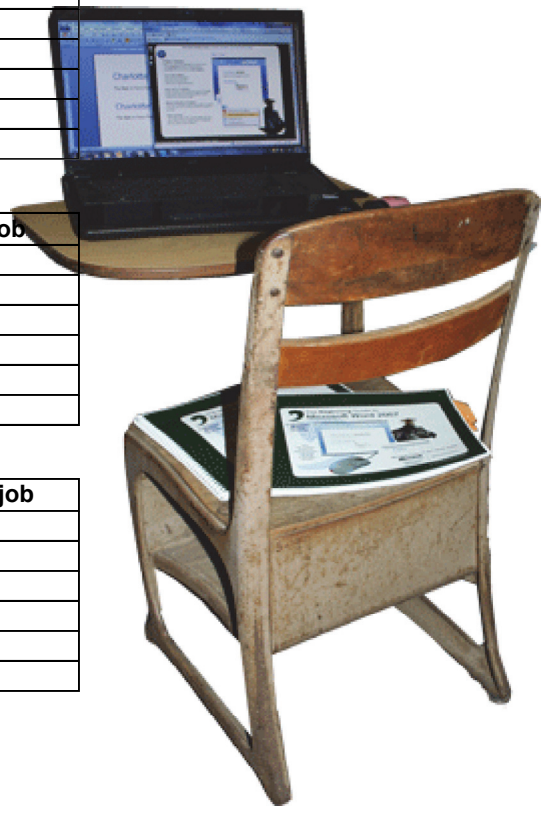
Beginning Excel is recommended if you selected “needs work” on three or more skills.

Skill Level-Intermediate Excel	Mastered	Needs Work	Required for my job
AutoFill data and formulas			
Link Spreadsheets			
Use Relative and Absolute Cell References			
Use Conditional Formatting			
Create a drop down list			
Use the auditing toolbar			

Intermediate Excel is recommended if you selected “needs work” on three or more skills.

Skill Level-Advanced	Mastered	Needs Work	Required for my job
Create a Pivot Table for data analysis			
Format, group and graph Pivot Tables			
Use the What If tool			
Use Goal Seeking			
Import from Access or another database			
Use HLOOKUP and VLOOKUP			

Advanced Excel is recommended if you selected “needs work” on three or more skills.



Take One

Using an eReader

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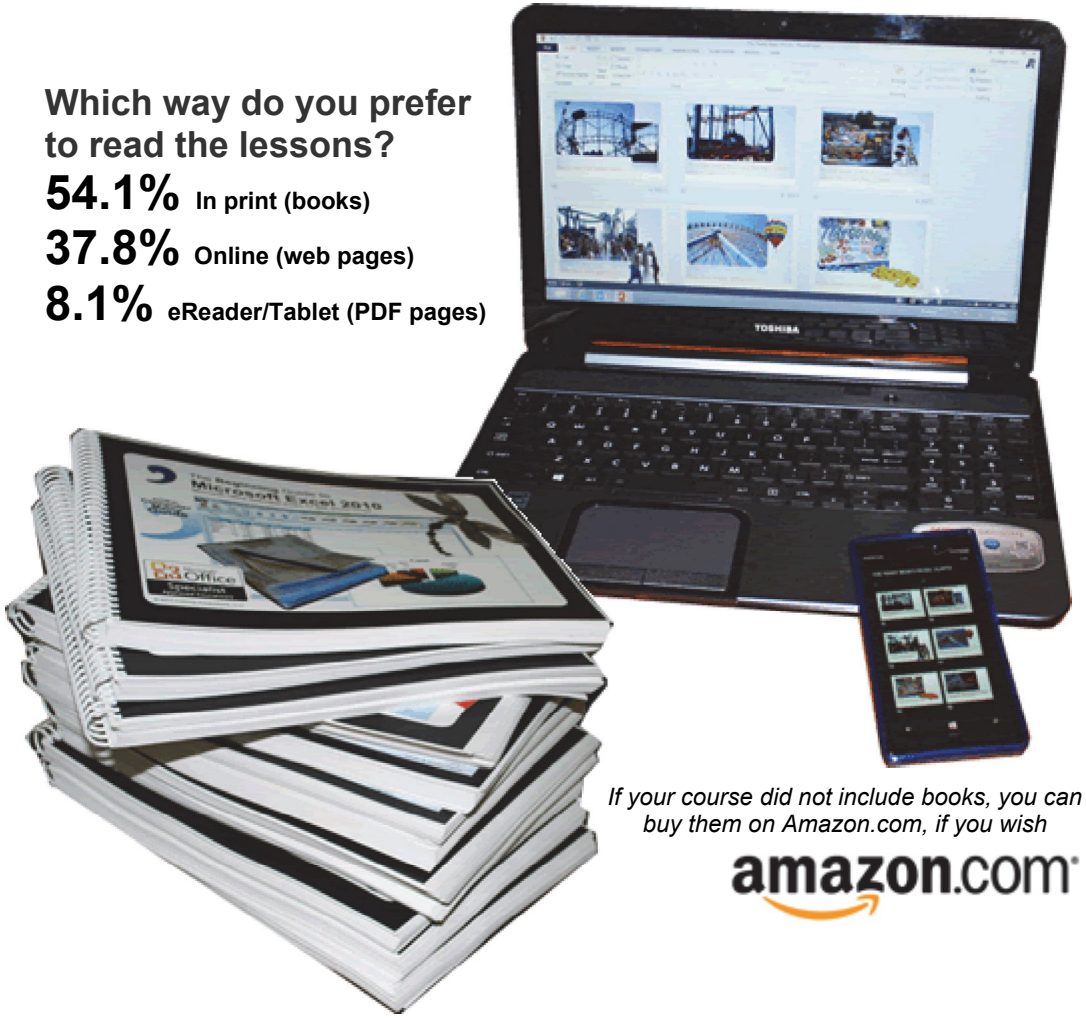
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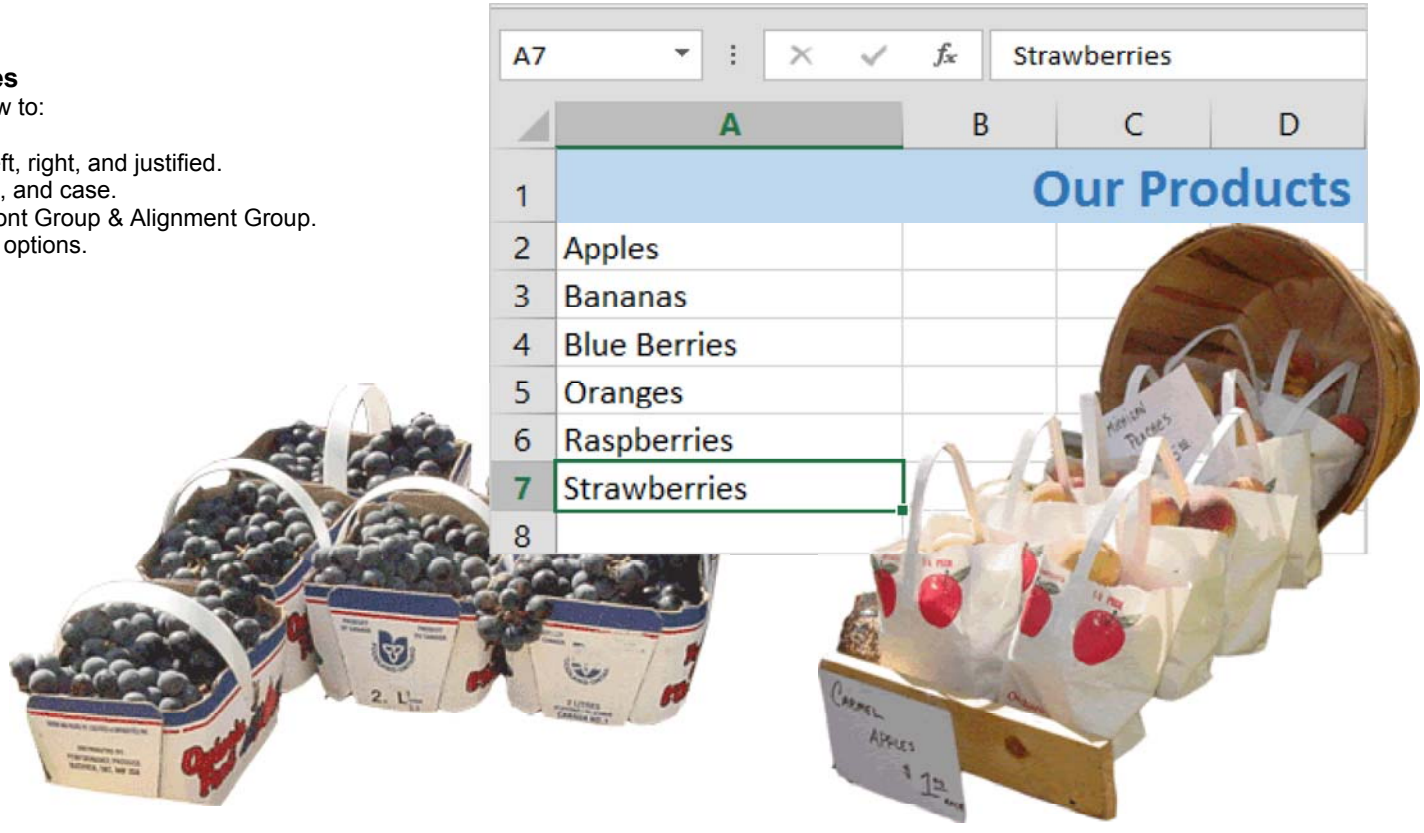
amazon.com

Hello, Microsoft Excel

Beginning Excel Objectives

In this lesson, you will learn how to:

1. Open Microsoft Excel.
2. Align Text in a Cell center, left, right, and justified.
3. Format Font color, size, face, and case.
4. Identify the Home Ribbon, Font Group & Alignment Group.
5. Identify and apply Alignment options.



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Lesson 2: Hello, Excel!

1. Readings
Read Lesson 2 in your Beginning Excel Guide, page 25-47.

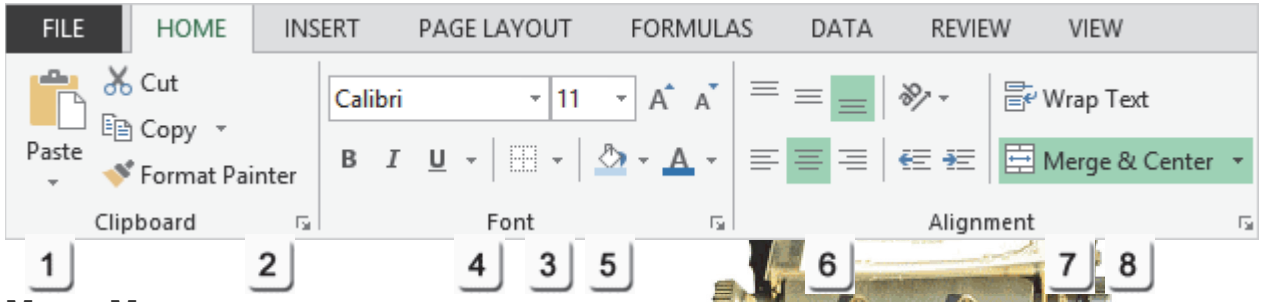
Project
A sample document that you do not need to save.

Downloads
There are NO downloads for this lesson.

2. Practice
There is no Practice Activity for this lesson.

3. Assessment
Review the Test Yourself questions on page 48.

Home



Menu Maps

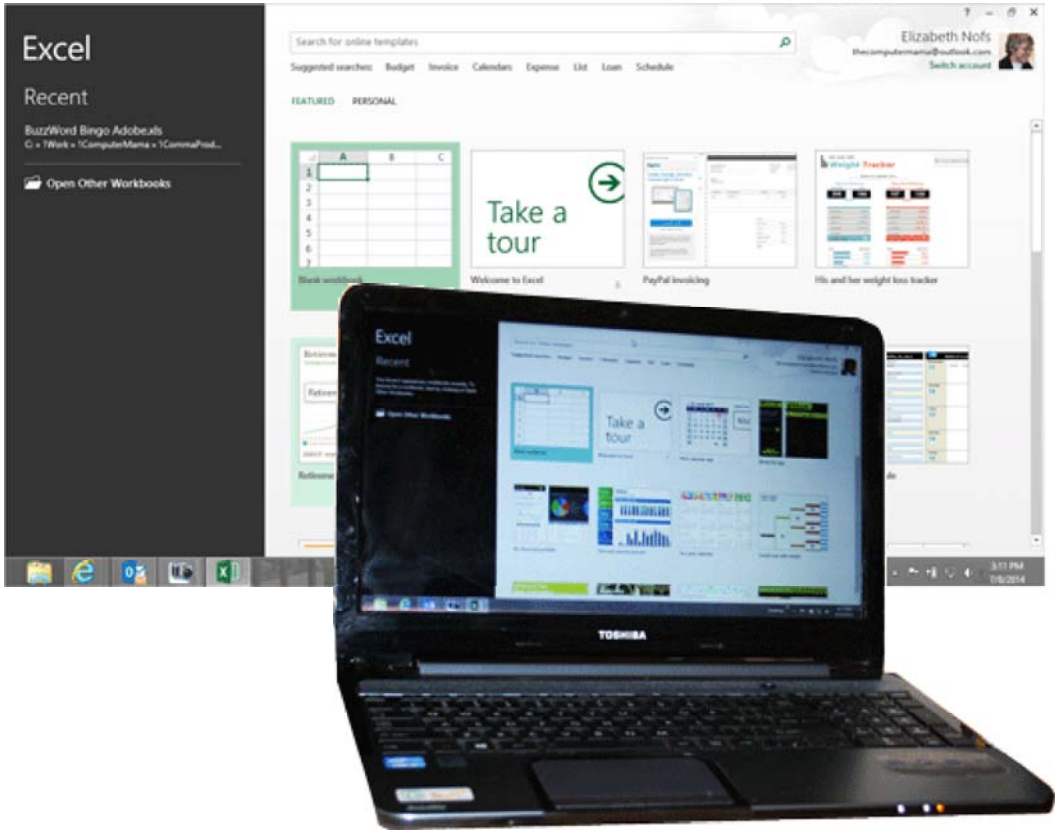
This lesson introduces the Home Ribbon.

1. Home ->Copy, page 38
2. Home->Font->Bold, page 31
3. Home ->Font-> Size, page 31
4. Home->Font->Borders, page 32
5. Home->Font->Color, page 33
6. Home->Alignment, page 34
7. Home->Alignment->Merge and Center, page 36
8. Home->Alignment->Wrap Text, page 37



Dalton Adding Machine, circa 1920

Start ->Microsoft Excel



Hello, Microsoft Excel!

At the beginning of the digital age, computers were expensive. **Word processing** was not a compelling reason to get a computer; typewriters cost less and did just as much. People didn't buy the first computers for graphics or photography or music.

The "killer app" that everybody needed was SPREADSHEETS.

Spreadsheets offered a way to calculate rows and columns of data. Say, “Hello” to Microsoft Excel.

Meet Microsoft Excel
Look at the label in **BOLD** above the picture of the Start menu on this page. This label is a method for writing out the path that your mouse travels. You will see this map at the top of every picture in our course.

Start Microsoft Excel. When you start Microsoft Excel 2013, you will be prompted to choose a workbook. On the right side of the Welcome page are templates: spreadsheet apps that you can edit for your own work.

Click on **Blank workbook.**

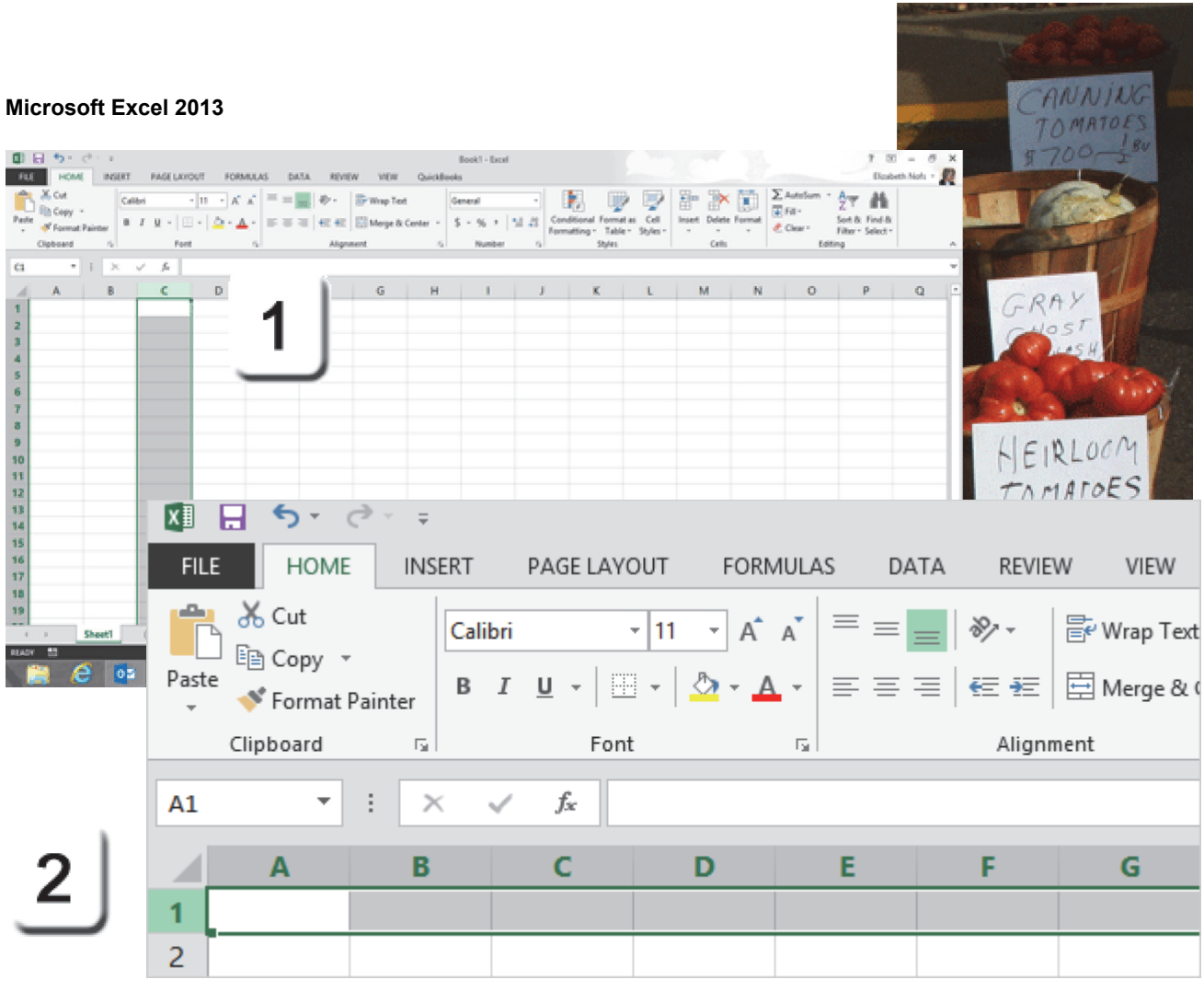
Rows and Columns

Excel has Columns, Rows and Cells. By definition, Columns are vertical, Rows are horizontal.

1. Try It: Select a Column
Click on the letter A above the first column to select the entire **column**. Click on the C Column header. Now you've selected Column C.

2. Try It: Select a Row
Click on the number 1 in the upper left corner. This is the Row selector. Now you've selected all of Row 1.

Keep going, please...



And Cells

A Cell is where a Column and Row meet. This page shows Cell A1 selected.

3. Try This: Select a Cell

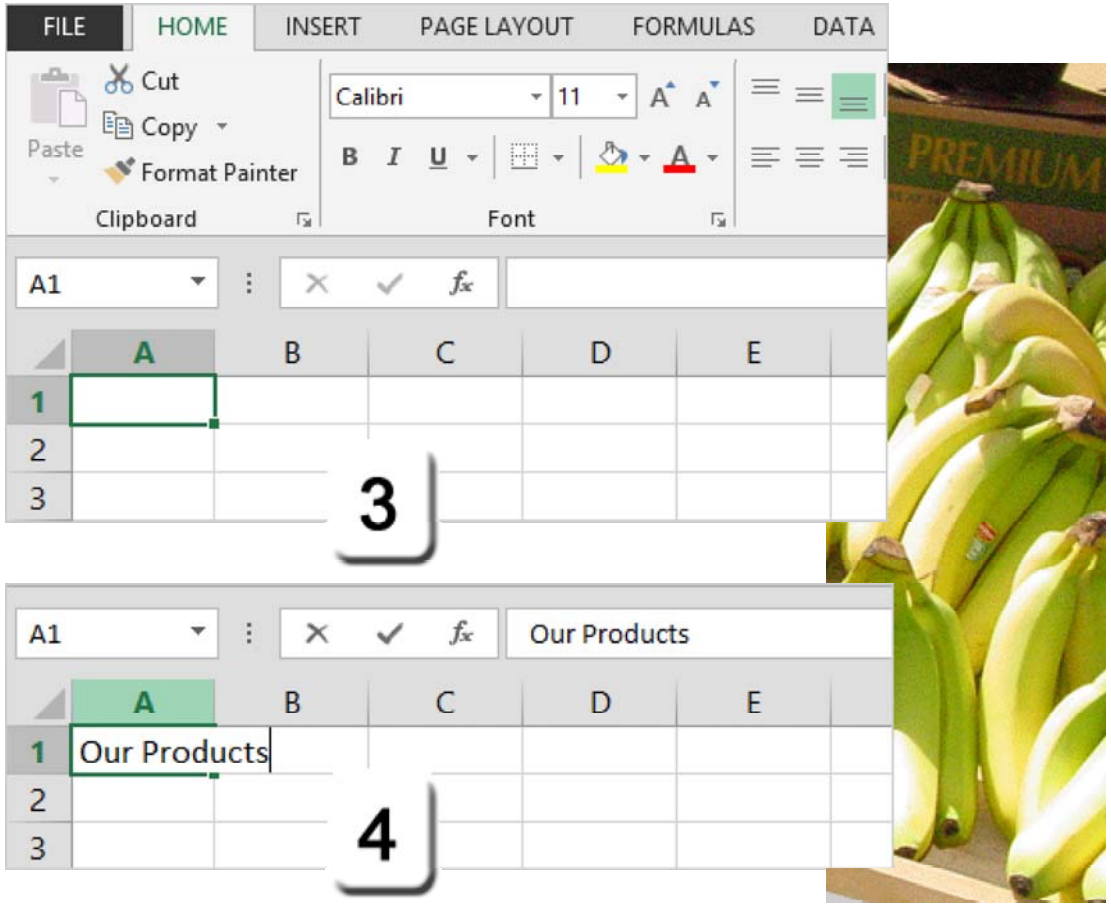
Select Cell A1. When you hit the **Enter** key on your keyboard, Excel takes you down to the next row to Cell A2.

Select Cell A1. When you use the **Tab** key on your keyboard, Excel takes you across the columns to Cell B1.

4. Try This, Too: Enter Information
Select Cell A1.
Type the words: Our Products
Press the **Enter** key on the keyboard.

Keep going...

Microsoft Excel



Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.1 Insert Data in Cells and Ranges

Resize the Column

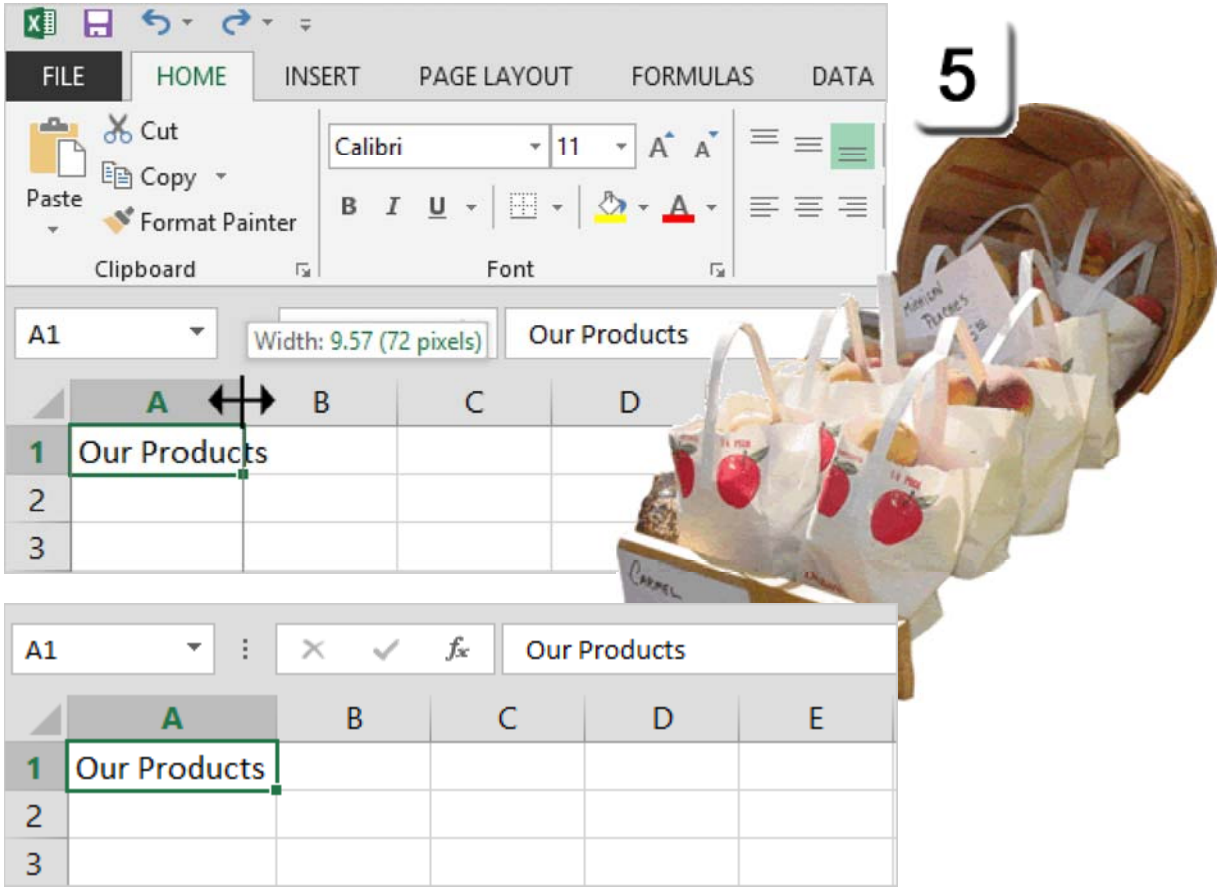
What Do You See? The words, Our Products, are too wide for the column.

You can **resize** the column to fit the data.

5. Try it: Resize the Column
Look at the top of the spreadsheet. Each Column is identified by a letter.

Between the Header for Column A and Column B is a line. When you run you cursor over that line, you should see a **double-headed arrow**. You can use this arrow to drag the Column width wider or more narrow if you wish.

Microsoft Excel



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.3 Format Worksheets and Workbooks: Adjust Row Height and Column Width

Format the Font

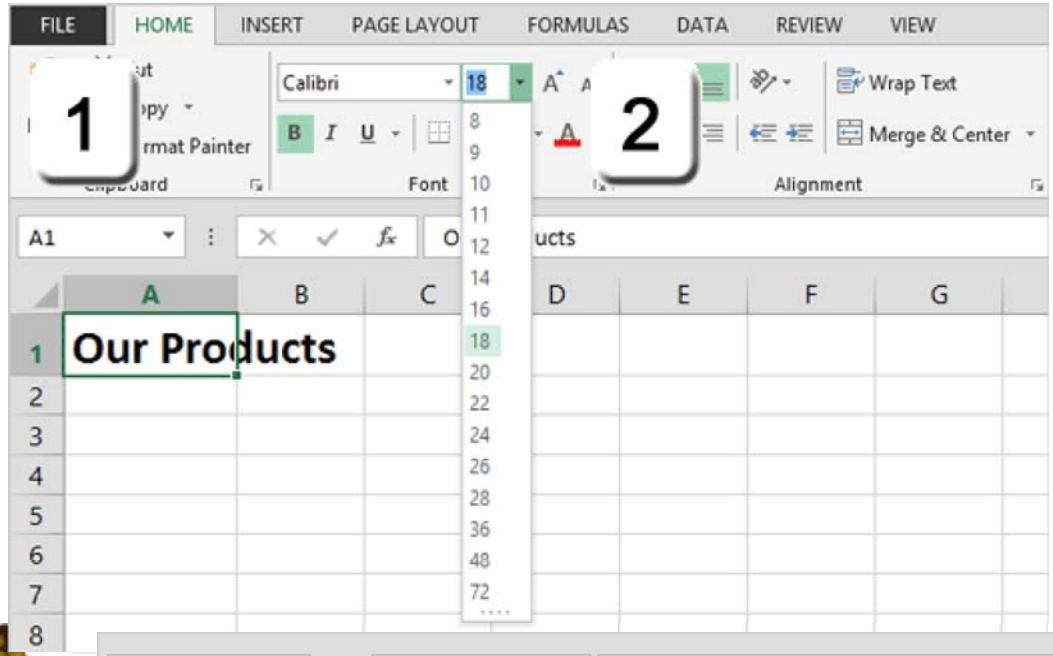
The information in the cells can be formatted, just like text in Microsoft Word. The Font tools are the same and they are found in the same place on the Home Ribbon. Let's review the steps.

1. Try it: Format the Font Bold
Select Cell A1: Our Products.
Go to **Home->Font.**
Click on B for **Bold**.

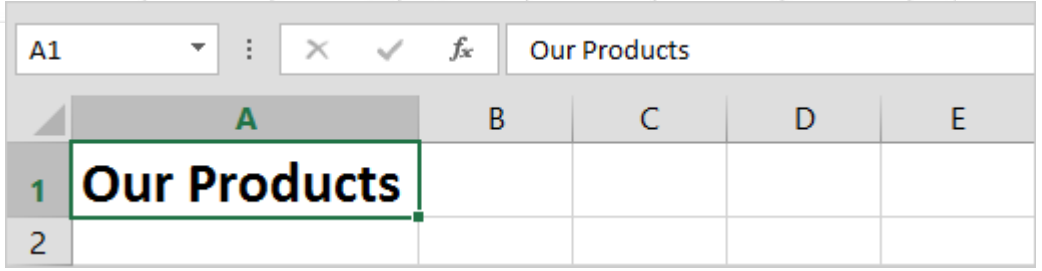
2. Try This, Too: Change the Font Size
Select Cell A1: Our Products.
Go to **Home->Font.**
Click on the arrow and change the **Font Size** to 18.

What Do You See? Column A may need to be resized to fit the data after you formatted the Font big and bold.

Home->Font







Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Change Font and Font Styles

More Formatting Options

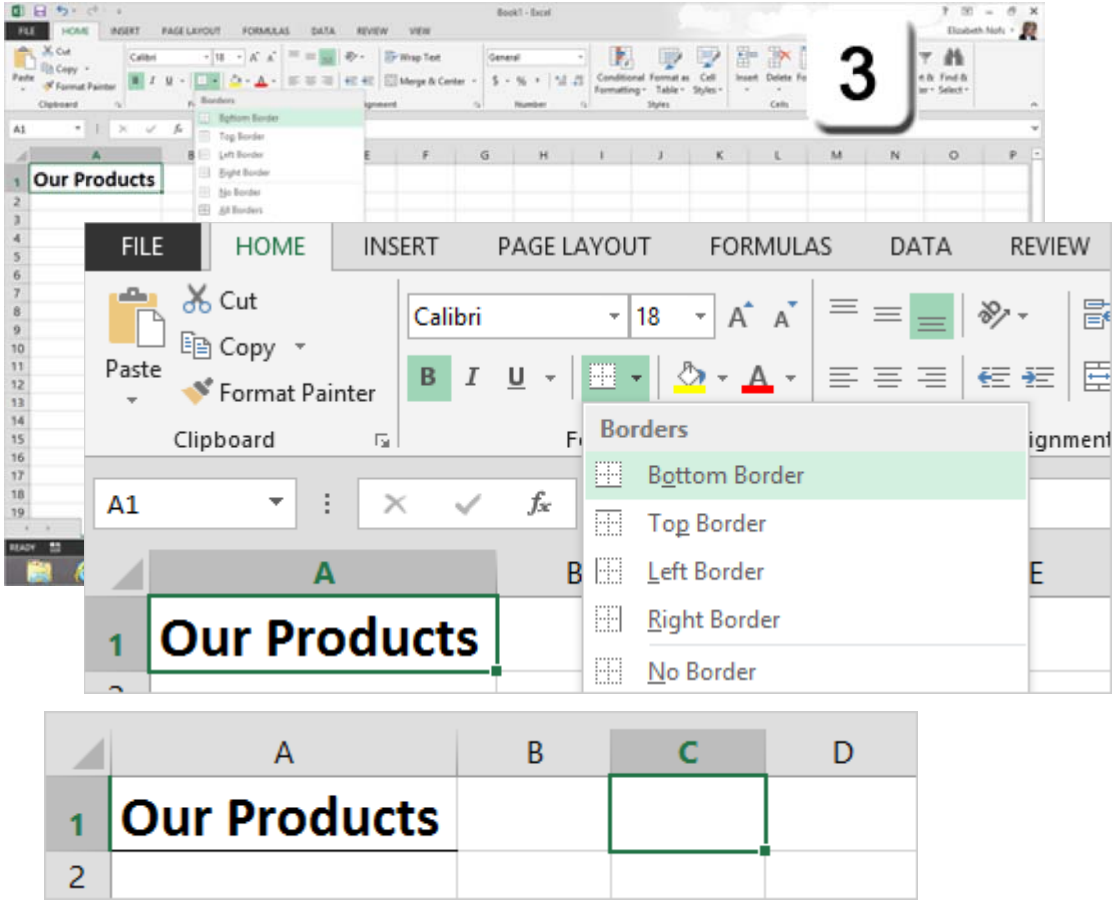
Borders are used in spreadsheets to show the math. Think about a column of numbers: at the bottom of the column there is a line, or a Border. Under that line could be the SUM or AVERAGE, or some calculated number.

3. Try it: Add a Bottom Border
Select Cell A1: Our Products.
Go to **Home->Font ->Borders.**
Click on **Bottom Border.**

What Do You See? The bottom Border may look invisible when Cell A1 is selected. Please Tab to the next Cell. Can you see the bottom Border on Cell A1, now?

Memo to Self: The Borders are applied to the Cell, not the data in the Cell.

Home->Font->Borders



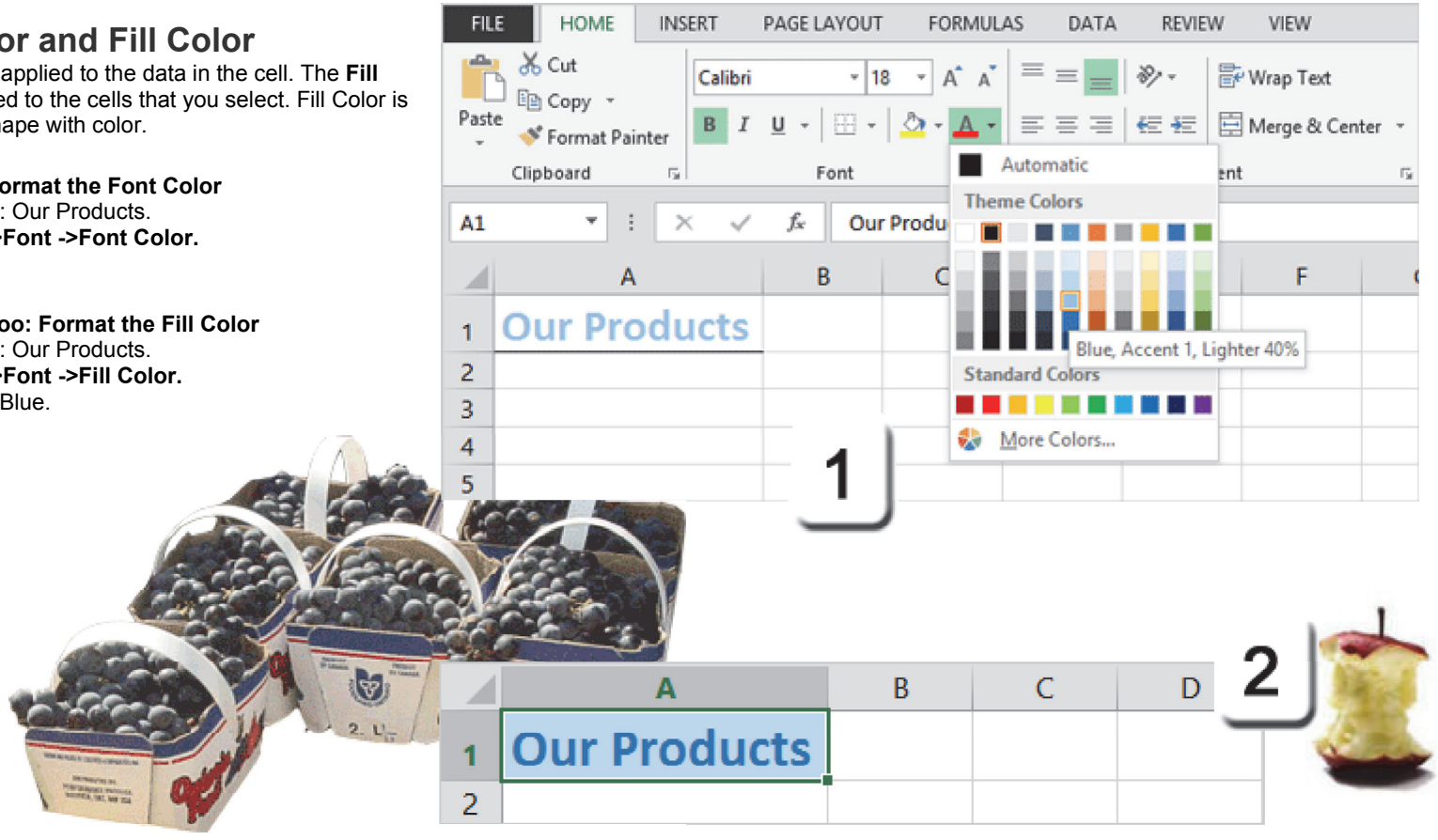
Font Color and Fill Color

Font Color is applied to the data in the cell. The **Fill Color** is applied to the cells that you select. Fill Color is like filling a Shape with color.

1. Try This: Format the Font Color
Select Cell A1: Our Products.
Go to **Home->Font ->Font Color.**
Click on **Blue.**

2. Try This, Too: Format the Fill Color
Select Cell A1: Our Products.
Go to **Home->Font ->Fill Color.**
Click on Light Blue.

Home->Font->Font Color



Cell Alignment

Microsoft Excel has a robust set of tools for formatting the position of the data in the cell.

Before You Begin: Make Cell A1 Bigger
Please select Cell A1. Use the Column Header to make the Column wider. Use the Row Selector to make the Row taller.

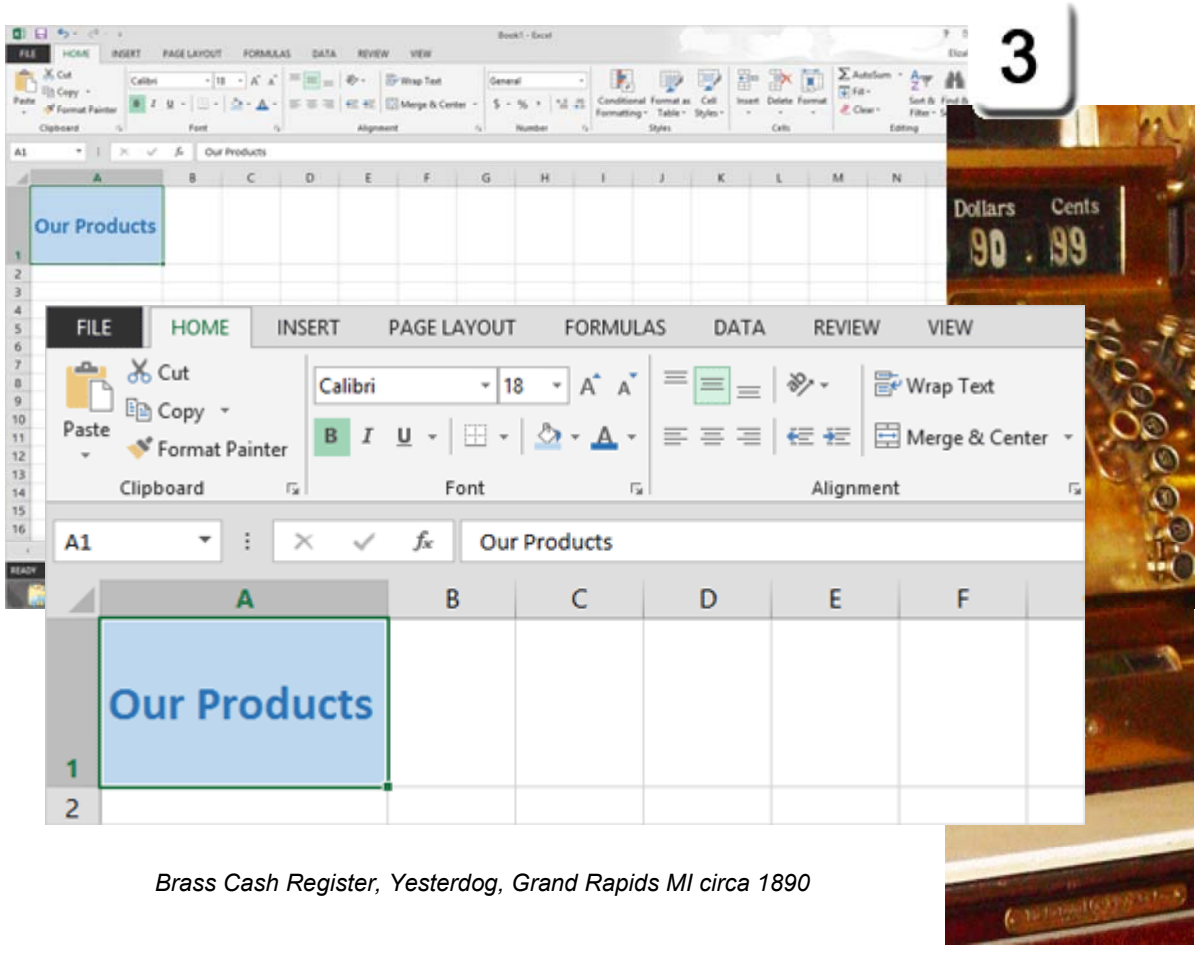
3. Try it: Format the Alignment
Select Cell A1.
Go to **Home->Alignment**.

What Do You See? The **Alignment** options in the top row include:
Top Align
Middle Align
Bottom Align

The **Alignment** options in the bottom row are:
Align Left
Center
Align Right.

OK, Do This: Align the Text
Go to **Home->Alignment->Middle Align**.
Keep going...

Home->Alignment



Brass Cash Register, Yesterdog, Grand Rapids MI circa 1890

More Alignment Options

You can use the Alignment tools to Rotate the Text. Here are the steps.

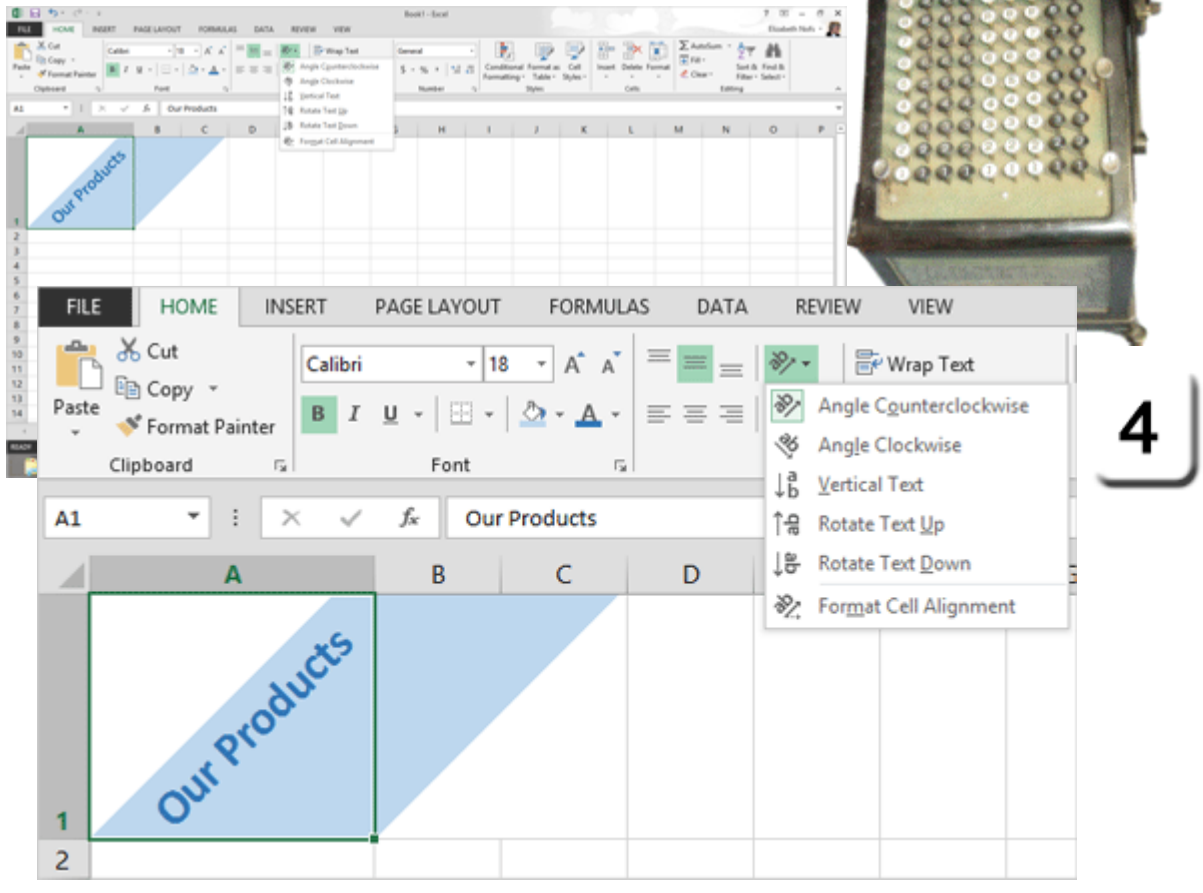
4. Try it: Rotate the Text
Select Cell A1: Our Products.
Go to **Home->Alignment->Orientation.**
Click on **Angle Counterclockwise.**

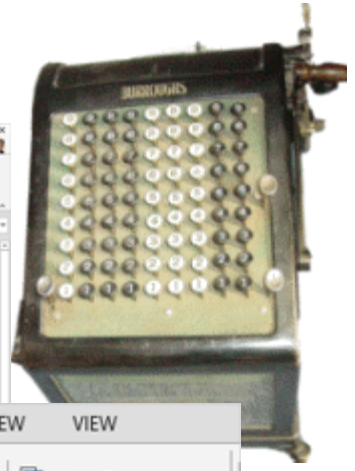
What Do You See? The options include Angle, Vertical Text. You can also Rotate the Text Up or Down.

You can try the different options if you wish. Please undo the rotation and resize the Cell smaller.

Keep going....

Home->Alignment-> ->Orientation->Angle Counterclockwise





4

Burroughs Adding Machine,
Hamburg MI circa 1920

Alignment: Merge & Center

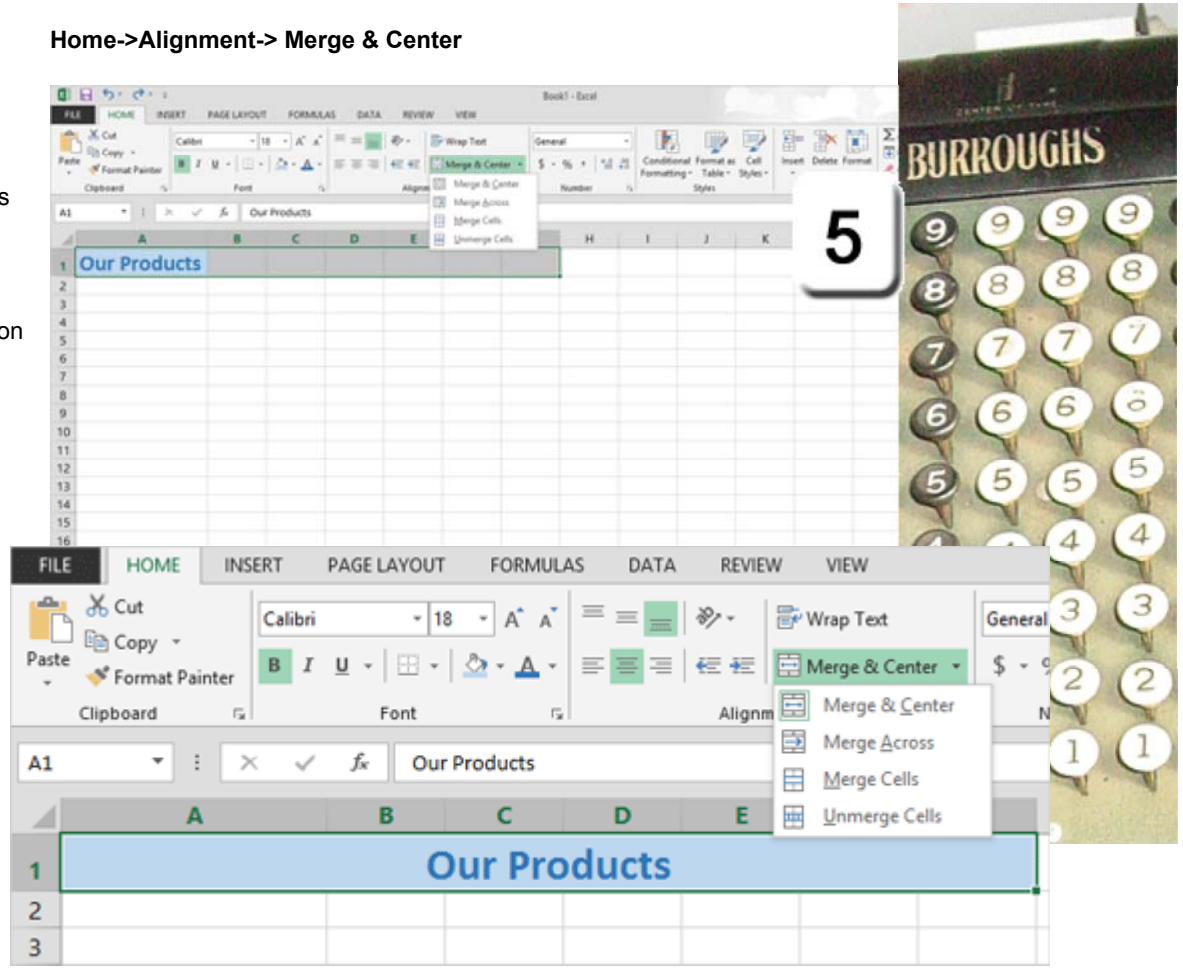
You can also select several cells and use the Alignment tools to position the text. This option is called **Merge & Center**.

5. Try it: Merge & Center the Text
Select Cell A1 through G1.
Click on Cell A1 and HOLD your left mouse button as you highlight the Cells from Cell A1 through Cell G1.

Go to **Home->Alignment.**
Click on **Merge & Center.**

What Do You See? There should be one, large cell. The Text should be centered.

Home->Alignment-> Merge & Center



Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Modify Cell Alignment and Indentation (Merge and Center)

Alignment: Wrap Text

At the beginning of this lesson we learned that a column can be made wide enough to fit the data. The Wrap Text function lets the text appear on multiple lines within a cell.

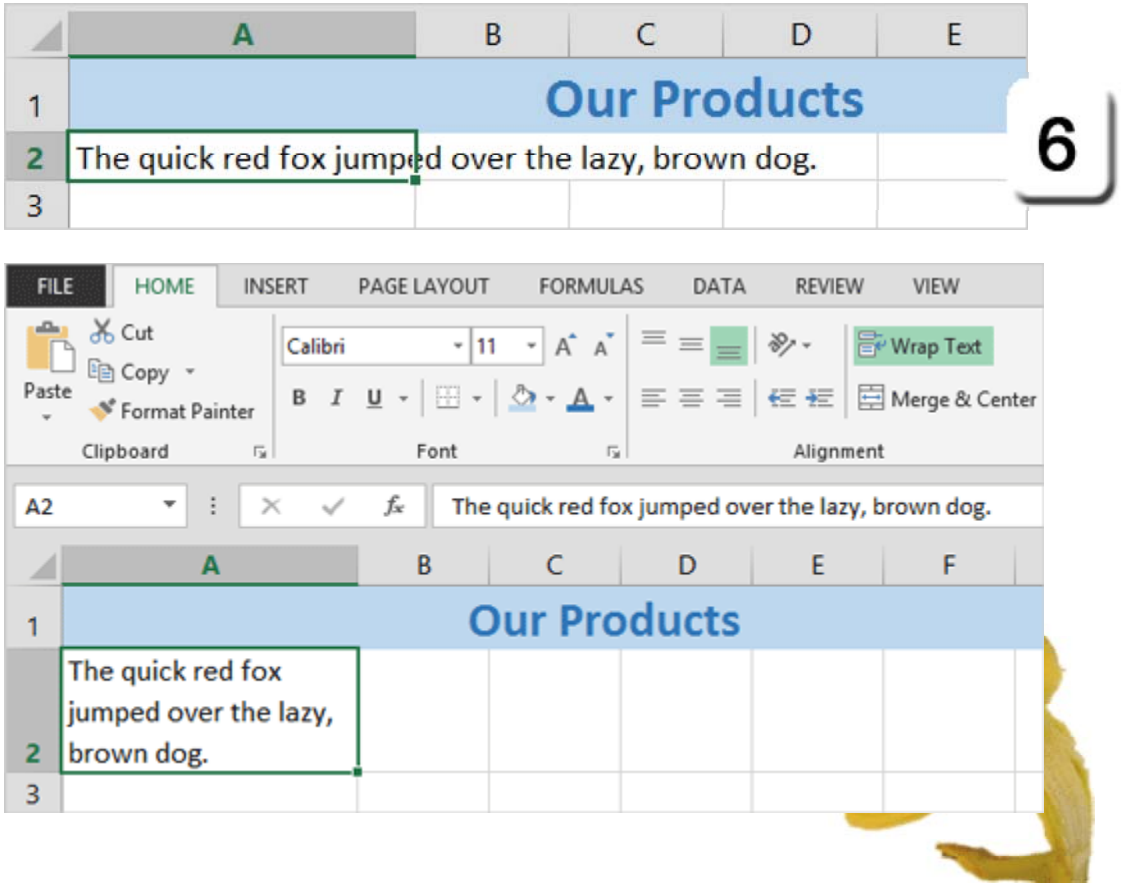
Before You Begin: Select Cell A2.
Type the words: The quick red fox jumped over the lazy, brown dog.

What Do You See? The text would make a very, very wide column if you resized it to fit.

6. Try it: Format the Alignment
Select **Cell A2.**
Go to **Home->Alignment**
Click on **Wrap Text.**

Try This, Too: Delete the Text
Select **Cell A2.**
Click DELETE on the keyboard.

Home->Alignment-> Wrap Text



Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Modify Cell Alignment and Indentation (Wrap Text)

Cut, Copy, Paste

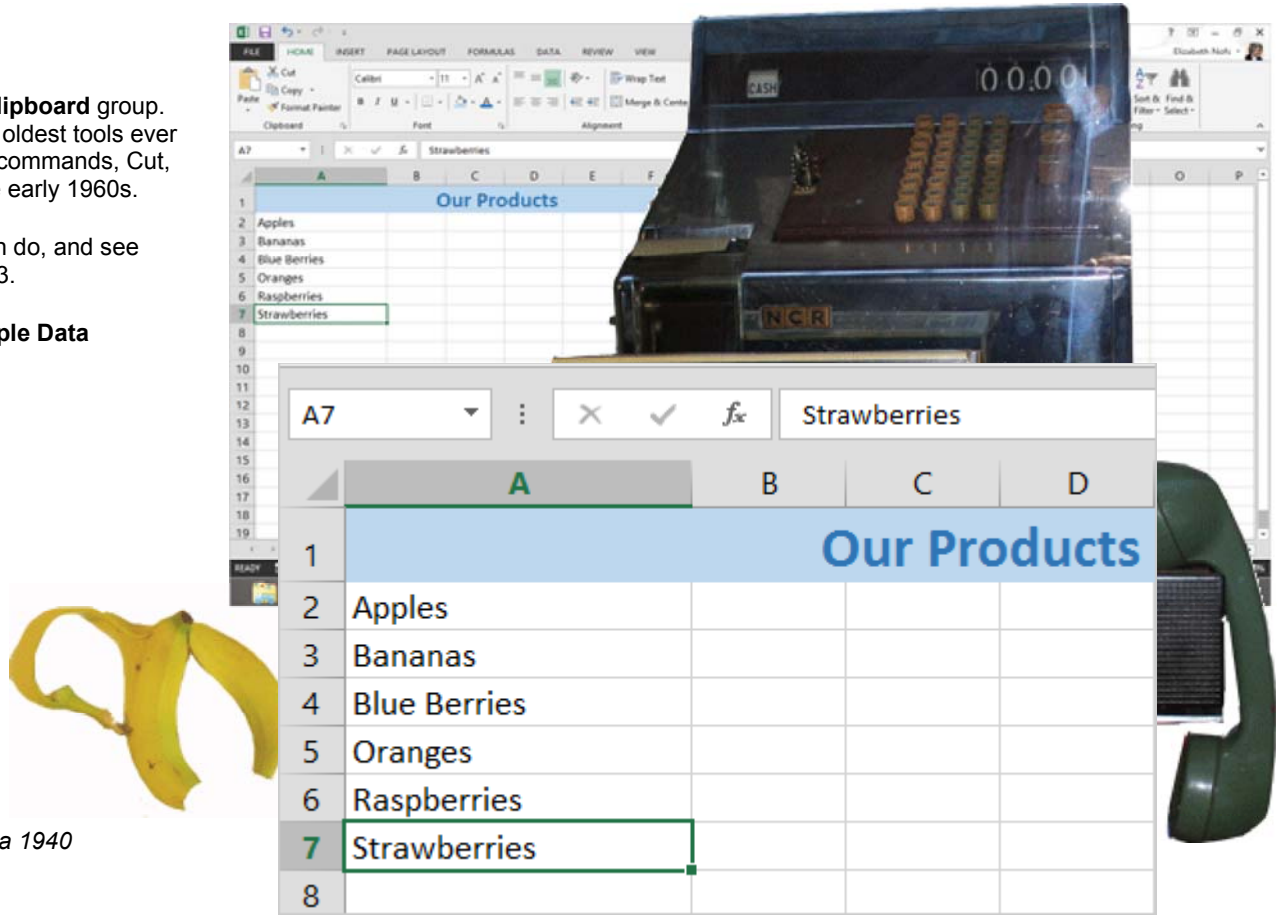
The **Home** Ribbon also includes the **Clipboard** group. **Cut, Copy and Paste** are some of the oldest tools ever invented for the computer. These Edit commands, Cut, Copy, and Paste, were designed in the early 1960s.

Let's review what these commands can do, and see some of the new features in Excel 2013.

Before You Begin: Enter Some Sample Data
Select Cell A2 and type: Apples
Select Cell A3 and type: Bananas
Select Cell A4 and type: Blue Berries
Select Cell A5 and type: Oranges
Select Cell A6 and type: Raspberries
Select Cell A7 and type: Strawberries

Keep going...

Microsoft Excel



NRC Cash Register, Ann Arbor MI circa 1940

Copy and Paste

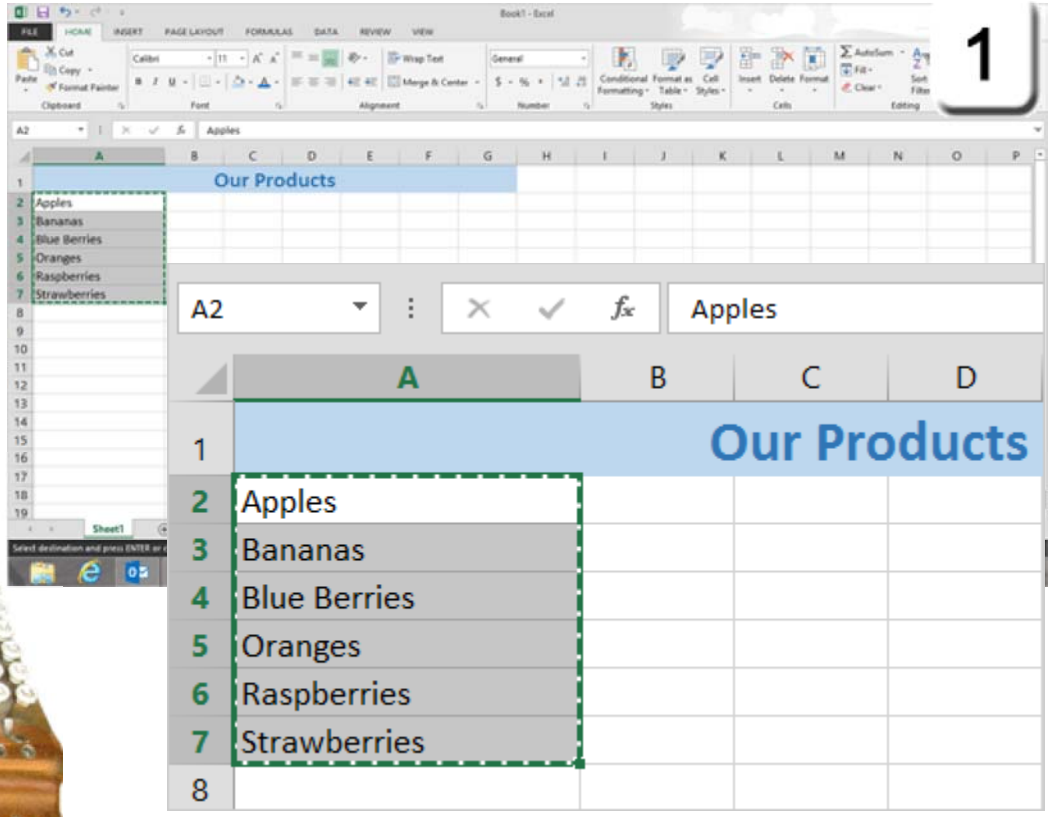
1. Try This: Copy the Sample Data
Select the Range of Cells from A2 through A7.
Go to **Home->Clipboard->Copy**.

What Do You See? Microsoft Excel highlights the copied cells with a flashing border. (This border is sometimes called "Black Marching Ants.")

You can paste the copied cells as long as the selection border is flashing.

Keep going...

Home->Clipboard->Copy





Burroughs Check Imprinter, Hamburg MI circa 1910

Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.1 Insert Data In Cells and Ranges: Copy and Paste Data

Paste Options

2. Try This, Too: Paste the Data
Select Cell B2.
Go to **Home->Clipboard->Paste**.

What Do You See? Microsoft Excel will paste the cells you copied into B2 through B7. In the example on this page, Column B is not as wide as Column A.

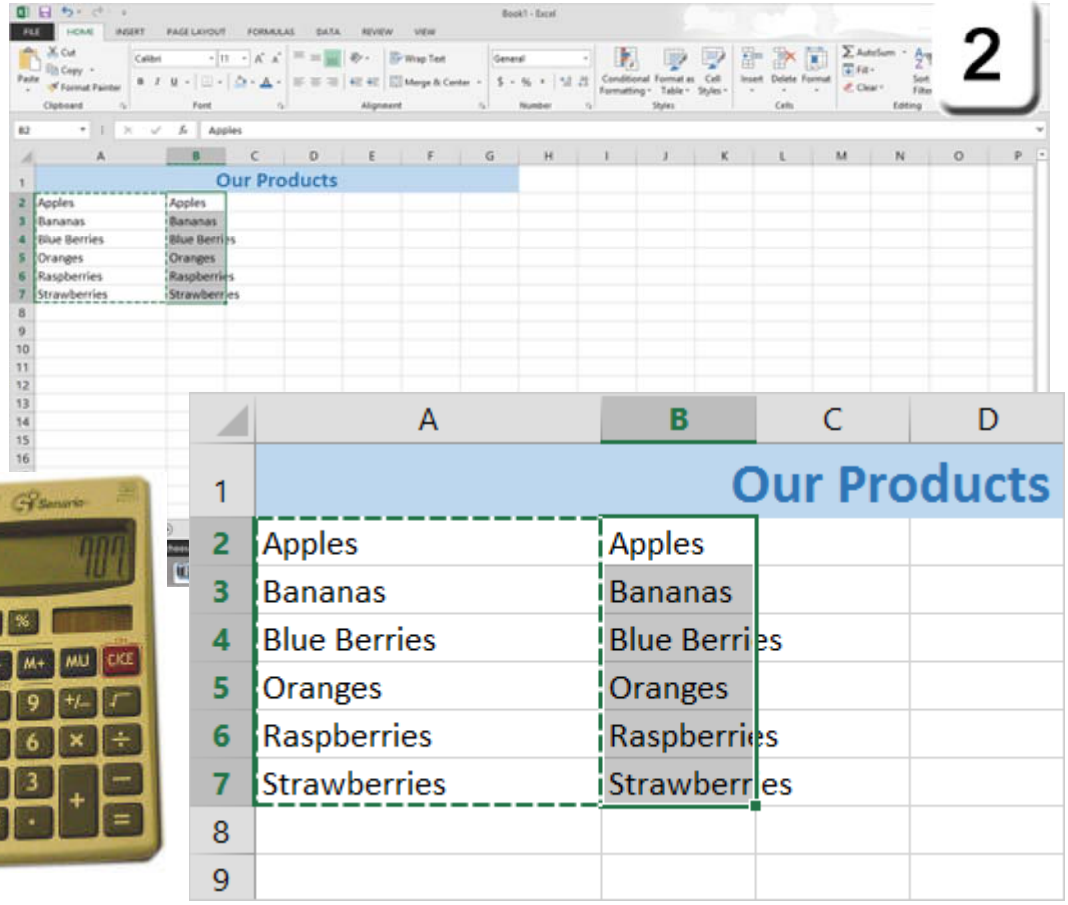
What Else Do You See? When you paste the copied cells you may notice a small **Clipboard** in the bottom right corner. These are the **Paste Options**...

Keep going...



Solar Powered Calculator, circa 1986

Home->Clipboard->Paste



More Paste Options

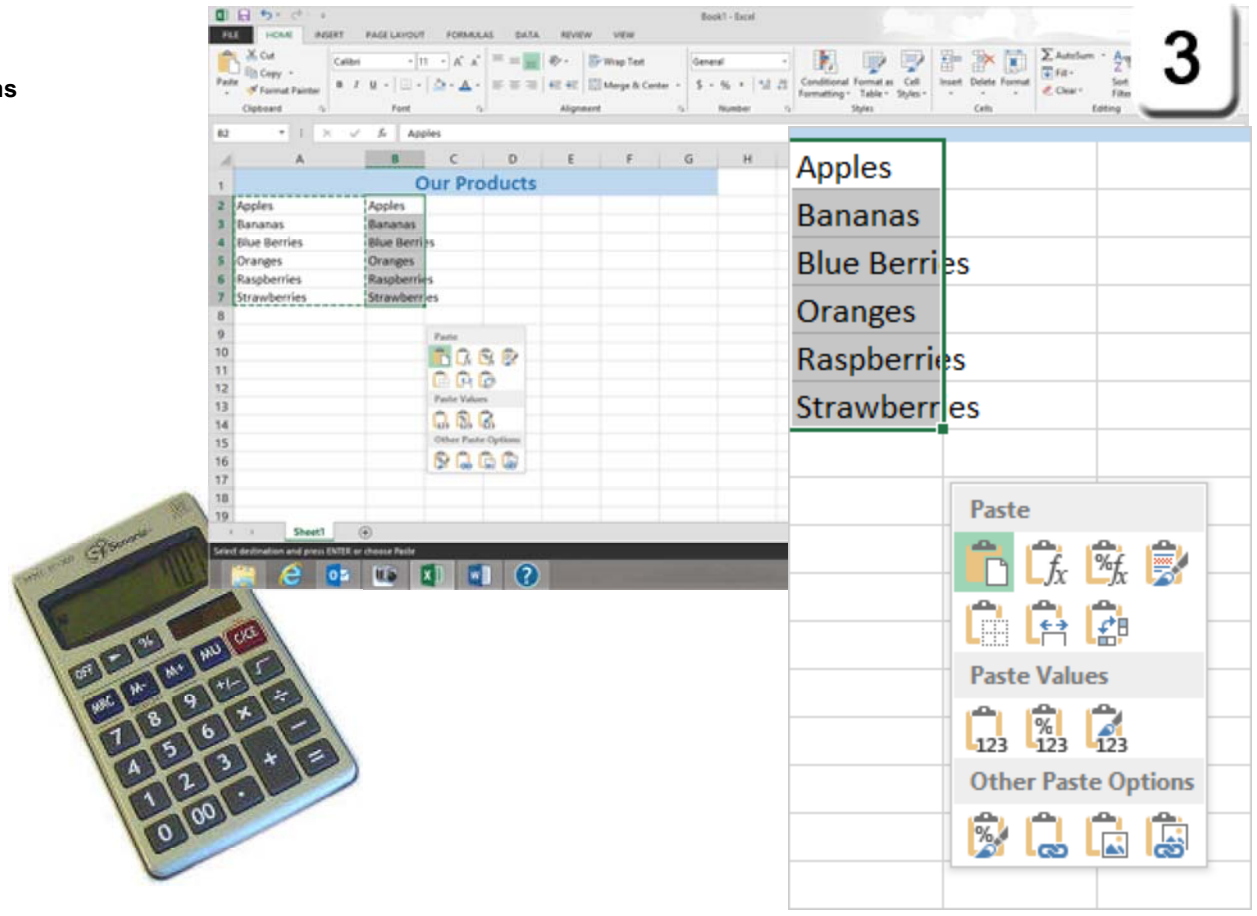
3. Try This: Review More Paste Options
The **Paste Options** include:
Paste
Formulas
Formulas and Number Formatting
Keep Source Formatting

No Borders
Keep Source Column Widths
Transpose

Paste Values (No formulas, just data)
Values
Values & Number Formatting
Values & Source Formatting

Other Paste Options
Formatting
Paste Link
Picture
Linked Picture

Home->Clipboard-> Paste



Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.1 Insert Data In Cells and Ranges: Copy and Paste Data

The Cut Command

You can use **Cut** to remove the contents of a cell and paste that information into a different cell, or perhaps in another spreadsheet or document.

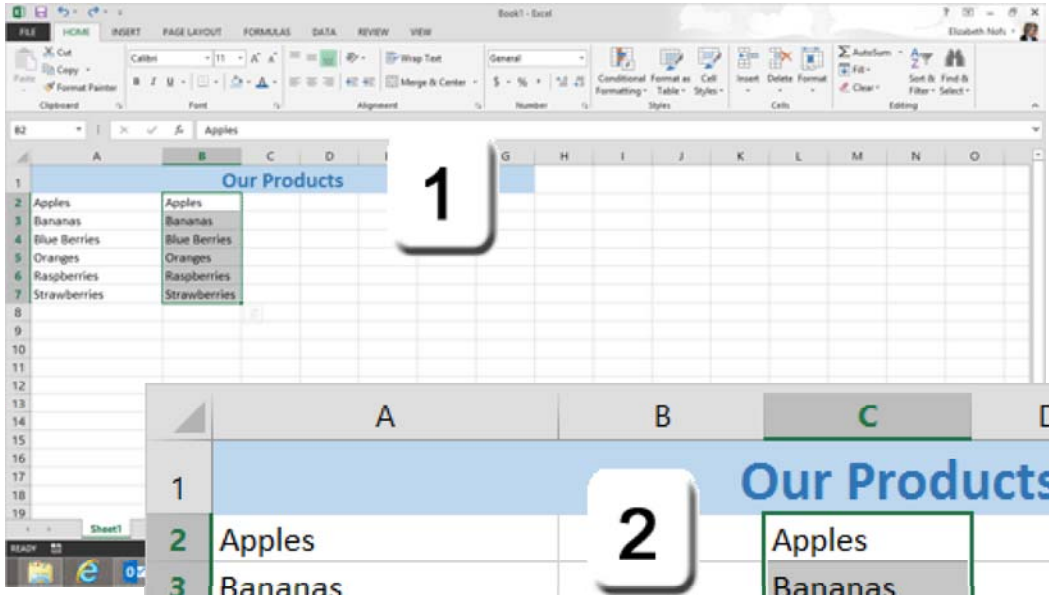
1. Try it: Cut the Data
Select: Cells B2:B7
Go to **Home->Clipboad->Cut.**

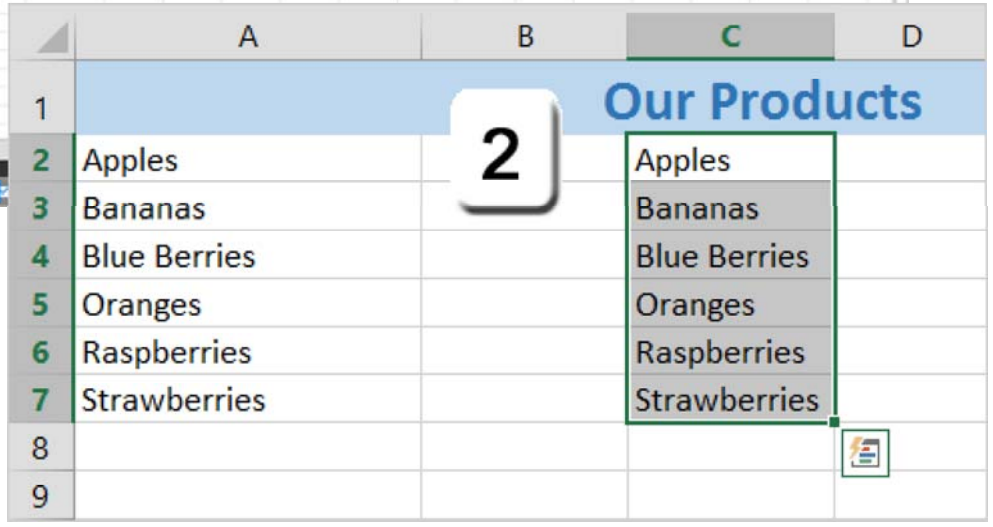
What Do You See? There should be a border (the black marching ants) around Cells B2:B7.

2. Do This, Too: Paste the Data
Select Cell C2.
Go to **Home->Clipboard->Paste**.

What Do You See, Now? The data should be **Cut** from B2:B7 and **Pasted** into C2:C7.

Home->Clipboard->Cut







Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.1 Insert Data In Cells and Ranges: Copy and Paste Data

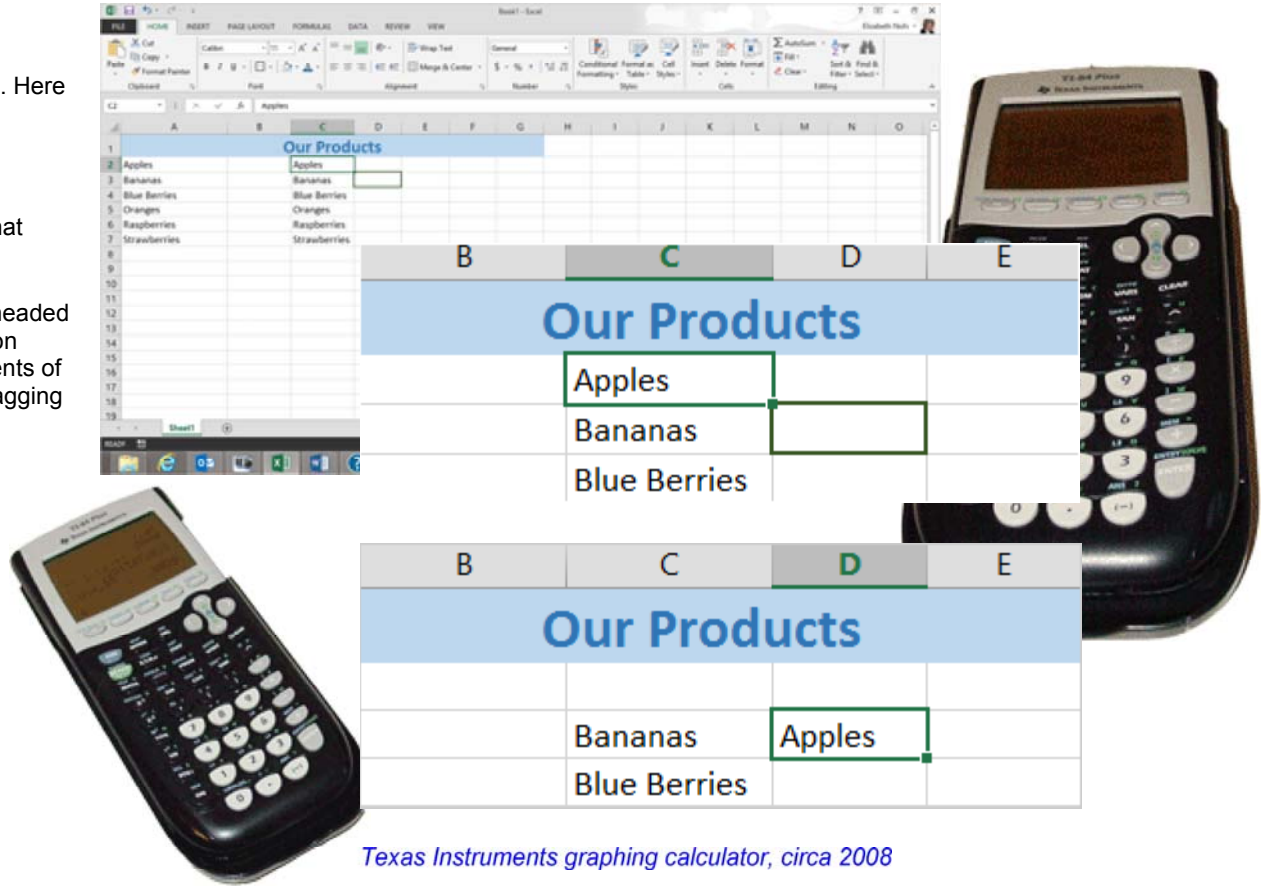
Move the Data

You can also **Move** the information in a cell. Here are the steps.

Try it: Move the Data
Select: Cell C2.
Run your cursor over the Border- the box that indicates that this is the cell you selected.

What Do You See? When you see a four-headed arrow click and HOLD your left mouse button down. You should be able to drag the contents of this cell across the spreadsheet just like dragging a picture in Word.

Microsoft Excel



Texas Instruments graphing calculator, circa 2008

Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.1 Insert Data In Cells and Ranges: Copy and Paste Data

Split the Merged Cell

Earlier in this lesson we selected Cells A1:G1 and merged them. What happens when you **Unmerge** the cell?

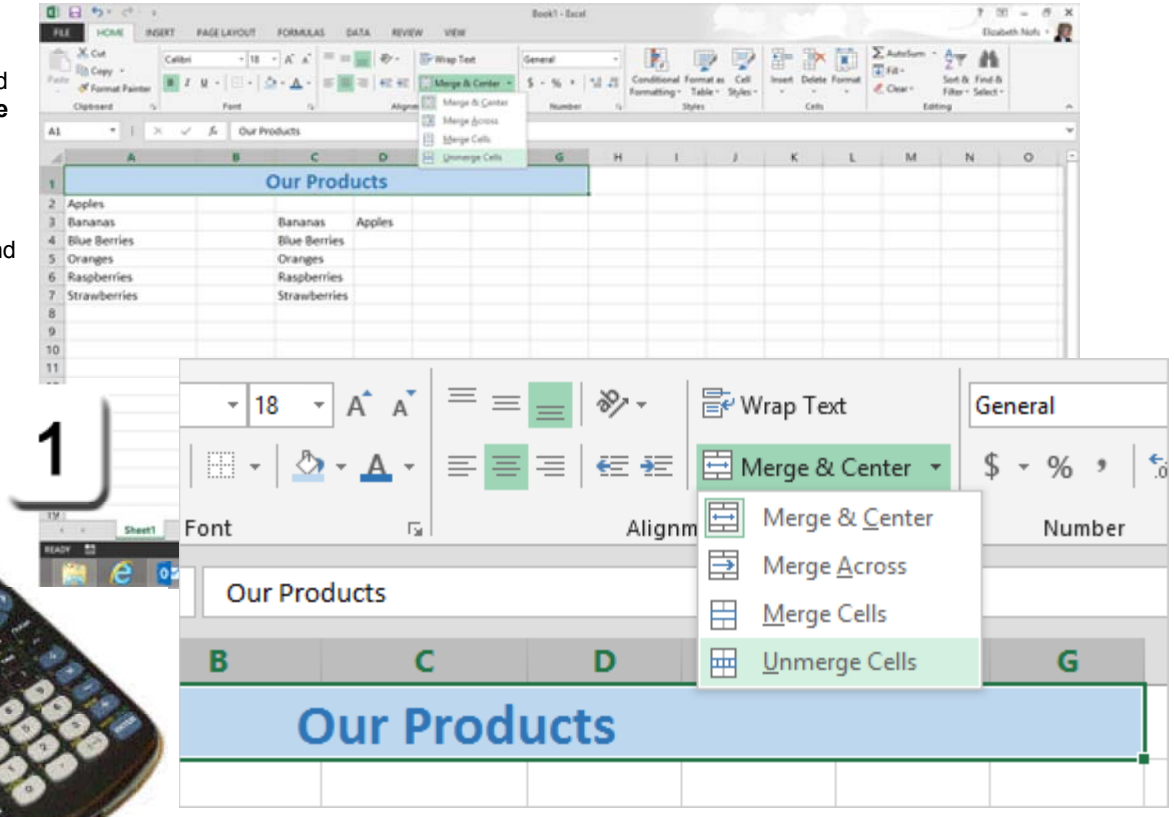
1. Try This: Unmerge Cells
Select the merged cell.
Go to **Home-> Alignment** -> **Merge & Center** and click on **Unmerge Cells**.

The **Merge & Center** options include:
Merge & Center
Merge Across
Merge Cells
Unmerge Cells

Keep going...

Home-> Alignment ->Merge & Center-> Unmerge Cells





Texas Instruments calculator, circa 1996

Formatting Issues

2. What Do You See? When you click on **Unmerge,** the merged cell will be split into individual cells.

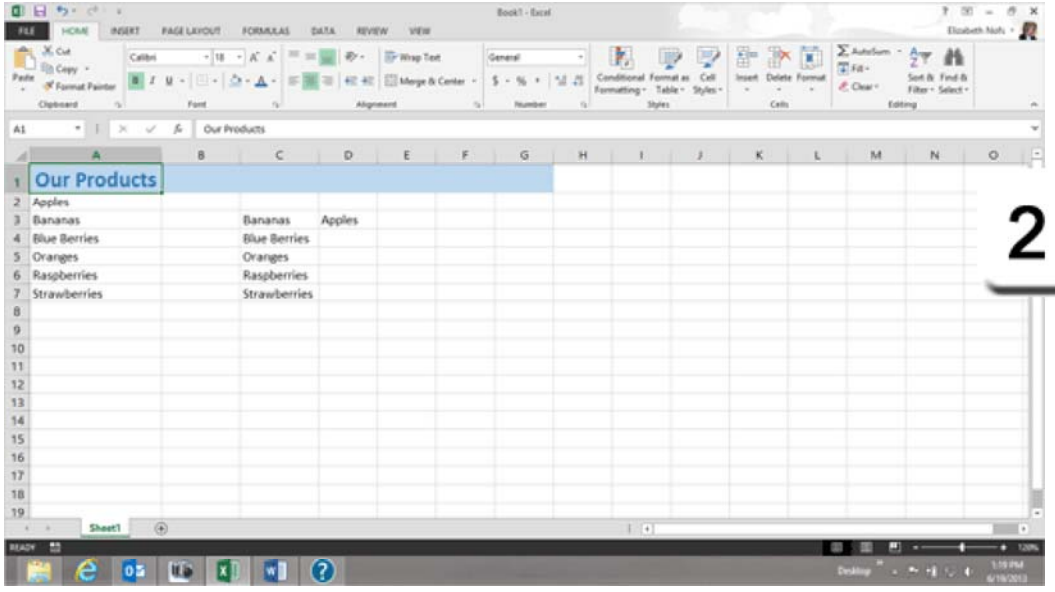
Look Closer: The split cells retained the same formatting from the merged cell. The example on this page shows a light blue fill in the split cells.

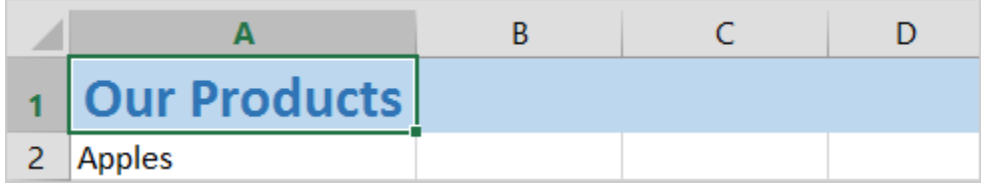
Keep going...



Hewlett Packard calculator, circa 1975

Home-> Alignment ->Merge & Center-> Unmerge Cells





Merging Data

In our earlier merge example, we selected several adjacent cells that were blank, empty of data. What happens if you merge together several cells that have data?

Before You Begin: Enter sample data
In Cell C3 type: Bananas
In Cell D3 type: Apples

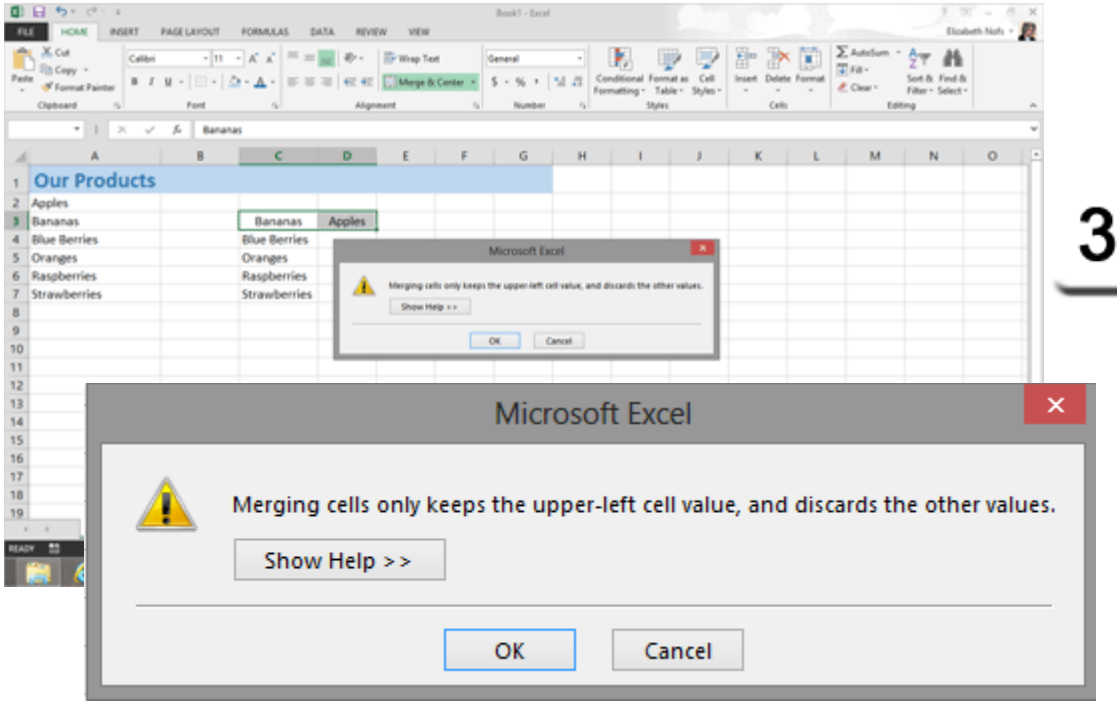
3. Try This: Merge Data
Select: Cells C3 and D3.
Go to **Home-> Alignment.**
Click on **Merge and Center**.

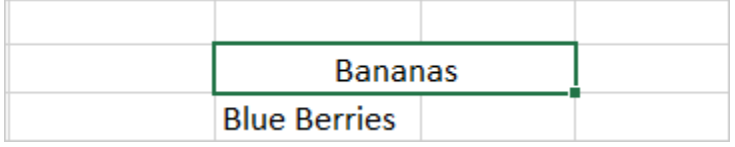
What Do You See? If several cells have data, Microsoft Excel will only keep the information from the first cell.

Please close this spreadsheet. You do not have to save it.

Memo to Self: The first cell is defined as the upper-left most cell in the spreadsheet.

Home-> Alignment ->Merge & Center





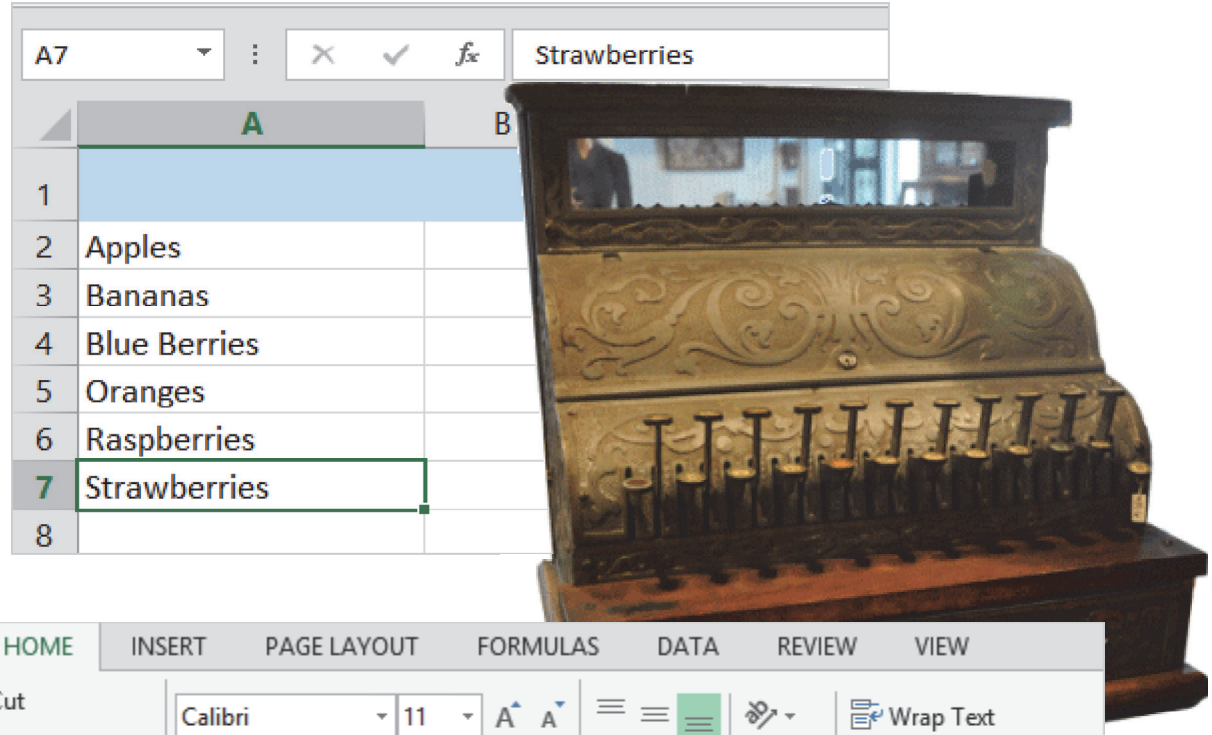
Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Modify Cell Alignment and Indentation (Merge and Center)

Lesson Summary

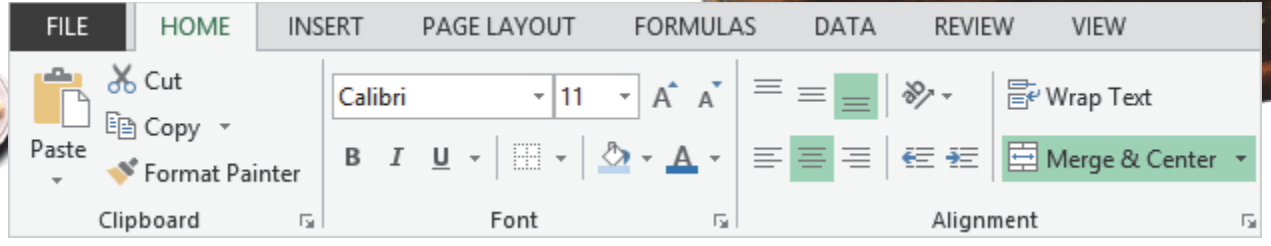
So, welcome to Microsoft Excel. This lesson introduced the basic options found on the **Home** Ribbon.

In the next lesson we will use these options to create a price sheet. Let's get down to business!

You done good. You get the cookie.







Test Yourself

1. Which is true?
(Select all correct answers.)
a. Columns are vertical
b. Rows are horizontal
c. A cell is where a row and column meet.
Tip: Beginning Excel, page 28, 29

2. Which Ribbon has the commands for formatting Font?
a. Format
b. Font
c. Home
d. Word
Beginning Excel, page 31

3. Which of the following is true?
(Select all correct answers.)
a. Font color applies to the data (text or numbers) in the cell
b. Fill color applies to background in the selected cell
Tip: Beginning Excel, page 33

4. Cells in Excel can be cut, copied, and pasted.
a. True
b. False
Tip: Beginning Excel, page 38, 39, 40

5. When merging cells, only the content in the first (upper-left cell) will be kept.
a. True
b. False
Tip: Beginning Excel, page 46



It All Adds Up

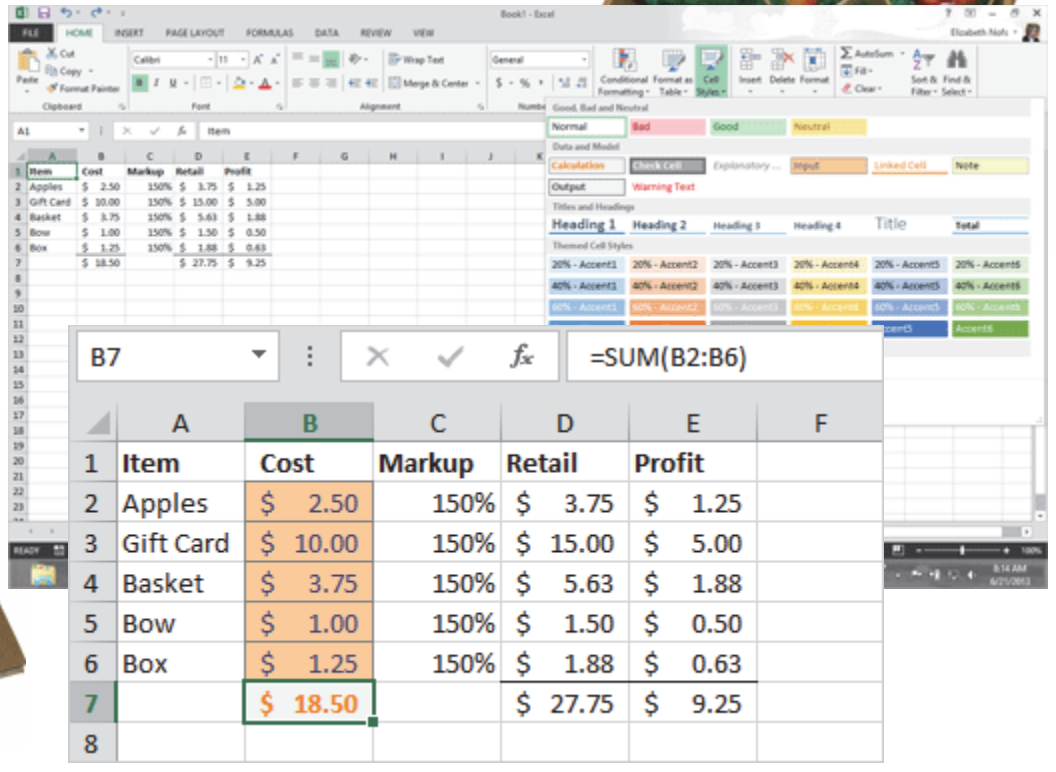


Beginning Excel Objectives

In this lesson you will:

1. Practice entering the labels and data.
2. Use the Home Ribbon to apply number formats.
3. Create a formula to calculate the retail price.
4. Use the AutoSum to calculate costs.
5. Use the AutoSum to SUM the profit.
6. Use the Home Ribbon to format cell borders.
7. Investigate options to hide and unhide data.
8. Identify and use the Cell Styles.





B7 =SUM(B2:B6)

	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 27.75	$ 9.25	
8						

Lesson 3: It All Adds Up

1. Readings

Read Lesson 3 in the Beginning Excel guide, page 49-76.

Project

A sample spreadsheet that calculates the wholesale and retail costs, and the profits.

Downloads

Charlotte's Prices.xlsx (Completed)

2. Practice

Complete the Practice Activity on page 77.

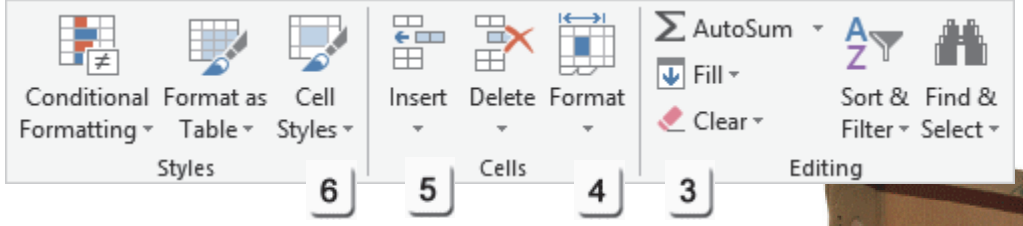
3. Assessment

Review the Test questions on page 78.

Home



Page Layout



Menu Maps

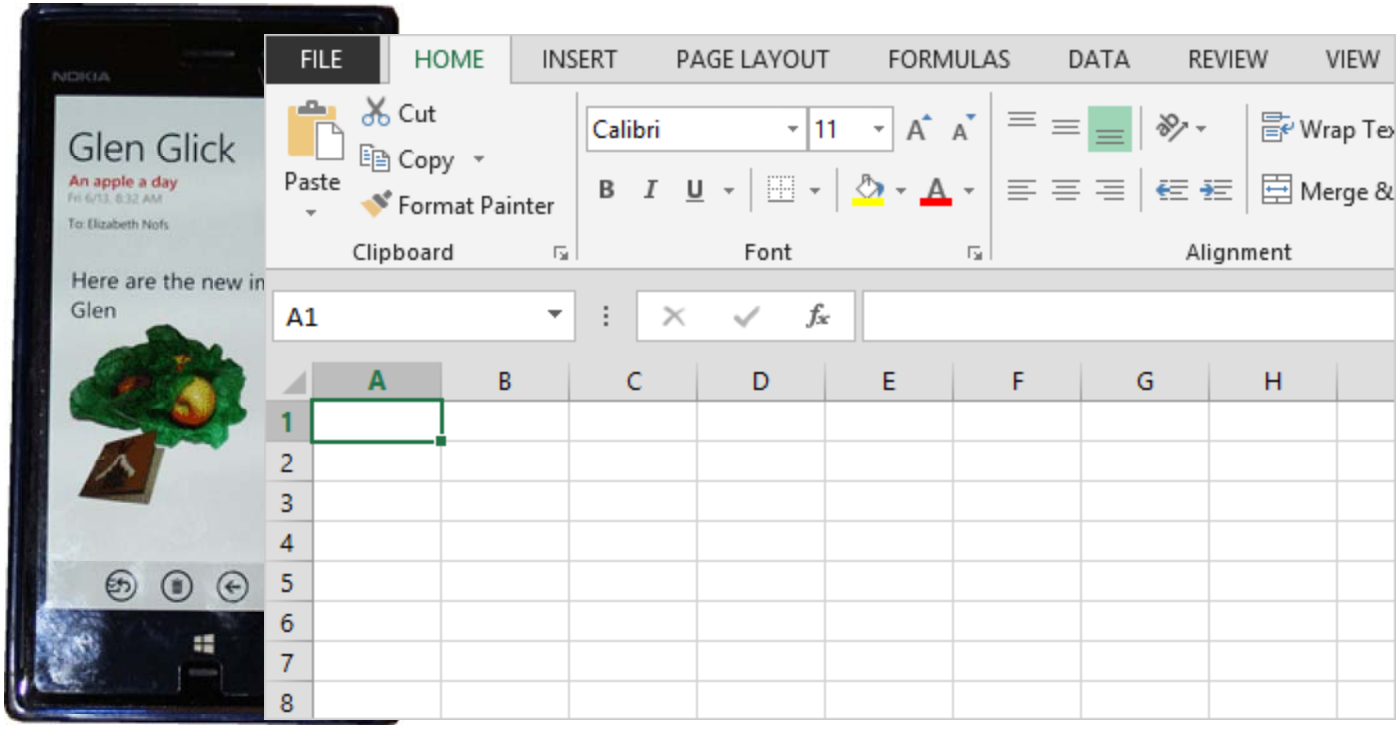
This lesson demonstrates options on the **Home** Ribbon.

1. Home->Number->Accounting, page 54
2. Home->Number->Percentage, page 55
3. Home->Editing->AutoSum, page 57
4. Home->Cells->Format, page 60
5. Home->Cells->Insert, page 62
6. Home->Styles->Cell Styles, page 67
7. **File->Save, page 69**



Open for Business

When you open a business, the first thing you need to figure out is whether you are making money or losing money. You need to be able to calculate the costs and the profits. You also need to mind the store and balance the check book. In this lesson, *Open for Business*, we will use Microsoft Excel to calculate the costs. We will also learn how to format and print a spreadsheet.



Start Microsoft Excel. When the Welcome screen appears, select a new, blank workbook.

What Do You See from the top of the screen? Is there a **Home** Ribbon? And the **Insert**, **Page Layout, Formulas, Data. Review and View** Ribbons as well? Yes.

If your screen looks like the example on this page, then you are ready to get started.

Take One

Working with Data

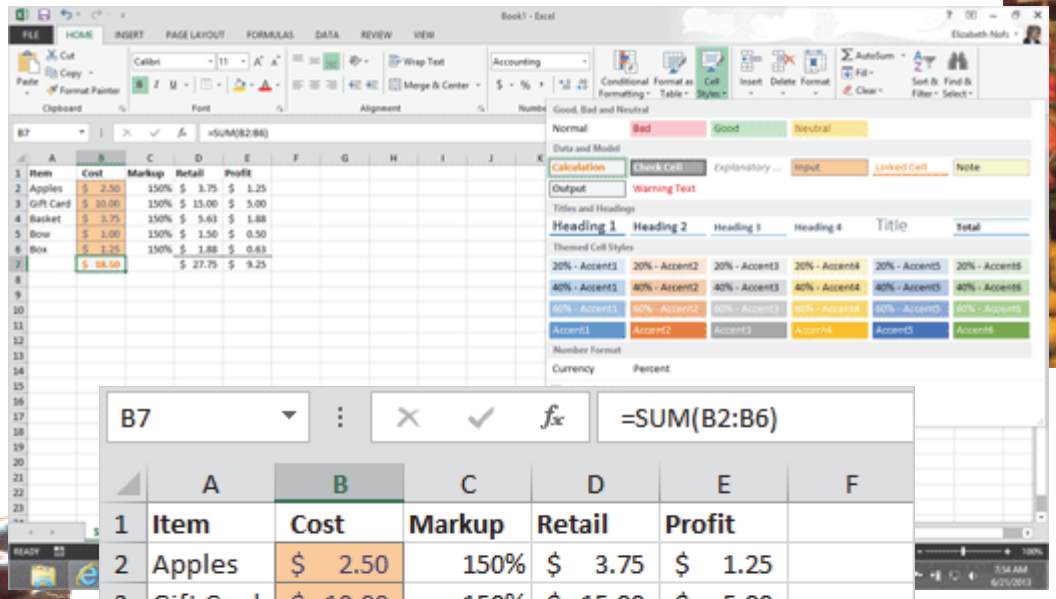
In this business scenario, you are an upscale farmers market: Charlotte's Website. Charlotte's sells fresh fruit and veggie baskets.

This spreadsheet will add up the cost of everything that goes into the products and determine a good price. We will also calculate whether this can be a profitable business.

All spreadsheets have three things: labels, data, and formulas.

Keep going...

Example of the completed spreadsheet



B7 =SUM(B2:B6)

	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 27.75	$ 9.25	
8						



Take One

Setup the Spreadsheet

1. Try This: Start with the labels

Enter the text

Click on Cell A1, the first square in the upper left corner of the grid.
Type the following labels:
Cell A1: Item
Cell B1: Cost
Cell C1: Markup
Cell D1: Retail

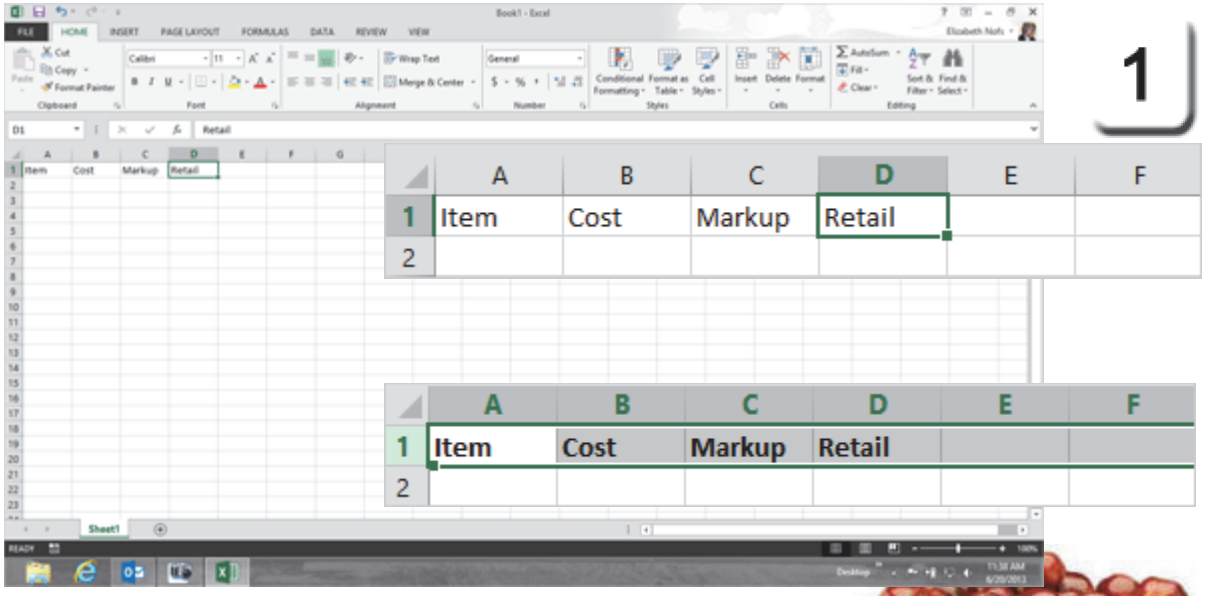
Make the labels Bold

Select Row 1 and click on **Bold** (B) in the **Font group**.

Keep going...

Memo to Self: Did you notice that the formatting tools look a lot like the ones in Microsoft Word?

Home -> Font ->Bold



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail		
2						



Take One

Enter the Data

What goes into each basket of fruit? The items will be listed in Column A. The costs will be entered in Column B.

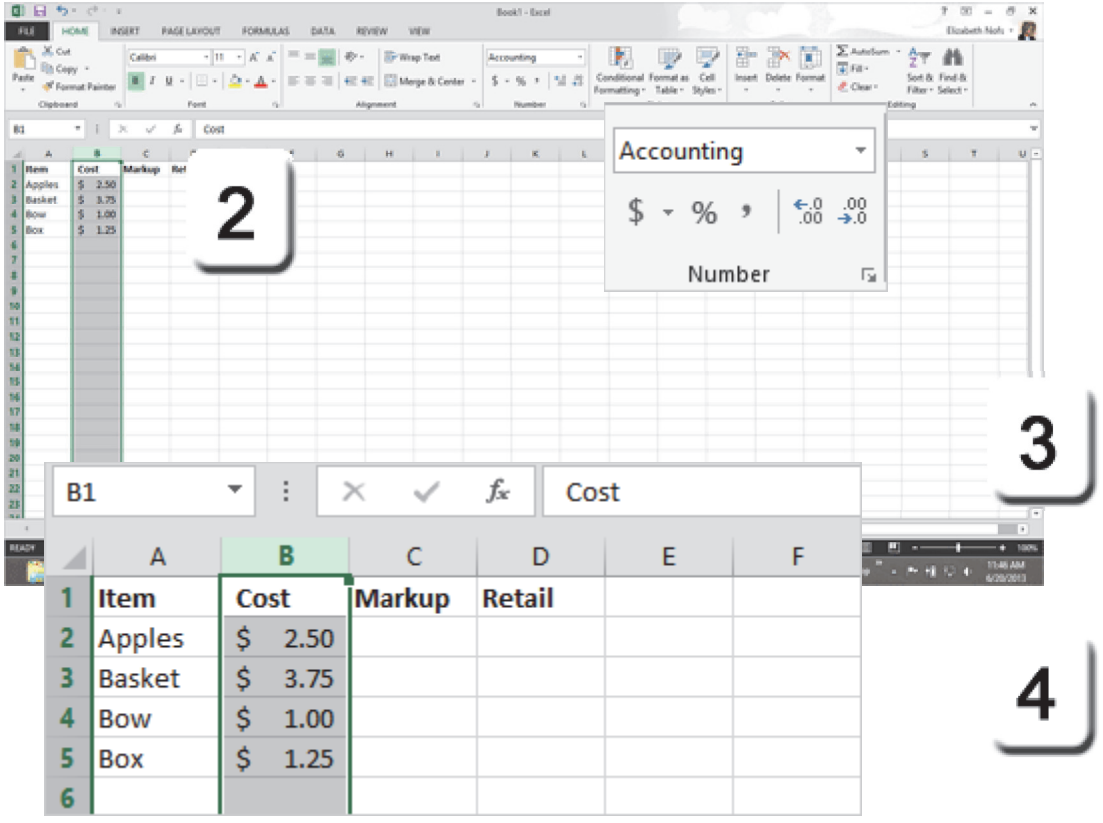
2. Try This: Enter the Items
Select Cell A2 and type: Apples.
Select Cell A3 and type: Basket.
Select Cell A4 and type: Bow.
Select Cell A5 and type: Box.

3. Try This, Too: Enter the Cost
Enter some sample numbers:
Cell B2: 2.50
Cell B3: 3.75
Cell B4: 1.00
Cell B5: 1.25

4. And Try This: Format the Cost
Select Column B.
Go to **Home -> Number ->Accounting.** ($) to format these numbers as dollars and cents.

Memo to self: Technically, just clicking the dollar sign ($) formats the numbers as Accounting. Accounting has a static dollar sign instead of a floating symbol.

Home -> Number ->Accounting



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail		
2	Apples	$ 2.50				
3	Basket	$ 3.75				
4	Bow	$ 1.00				
5	Box	$ 1.25				
6						

Take One

Calculate the Retail Price

The numbers you entered into Column B represent the wholesale cost. That is what Charlotte's Website paid to purchase the items that go into a fruit basket. In order to make a profit, you have to figure the retail price.

The retail price equals the wholesale cost multiplied by the percentage.

5. Try This: Format the Percentages
To start, select all of Column C, Markup.

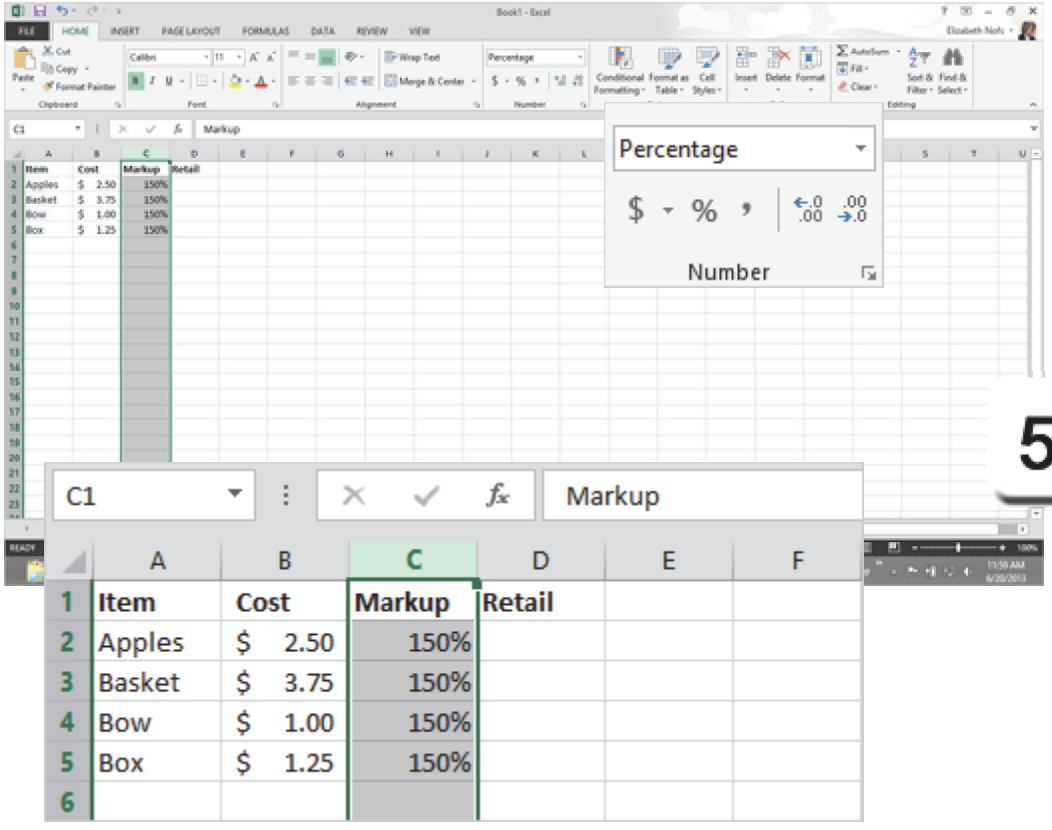
Go to the **Home** Ribbon. Look for the **Number** Group and click on **Percentage Style** (%).

Try This, Too: Enter the Data
A standard markup percentage is 150%. Type 150 in cells C2 through C5. Excel will automatically add the % sign.

So far so good...

Memo to Self: This is a simple list of what goes into a fruit basket. In real life, you would need to list every item including shipping and handling.

Home -> Number ->Percentage Style



Take One

Add It All Up

So what is the retail price? The equation would be the Cost times the Markup.

6. Calculate the Retail Price

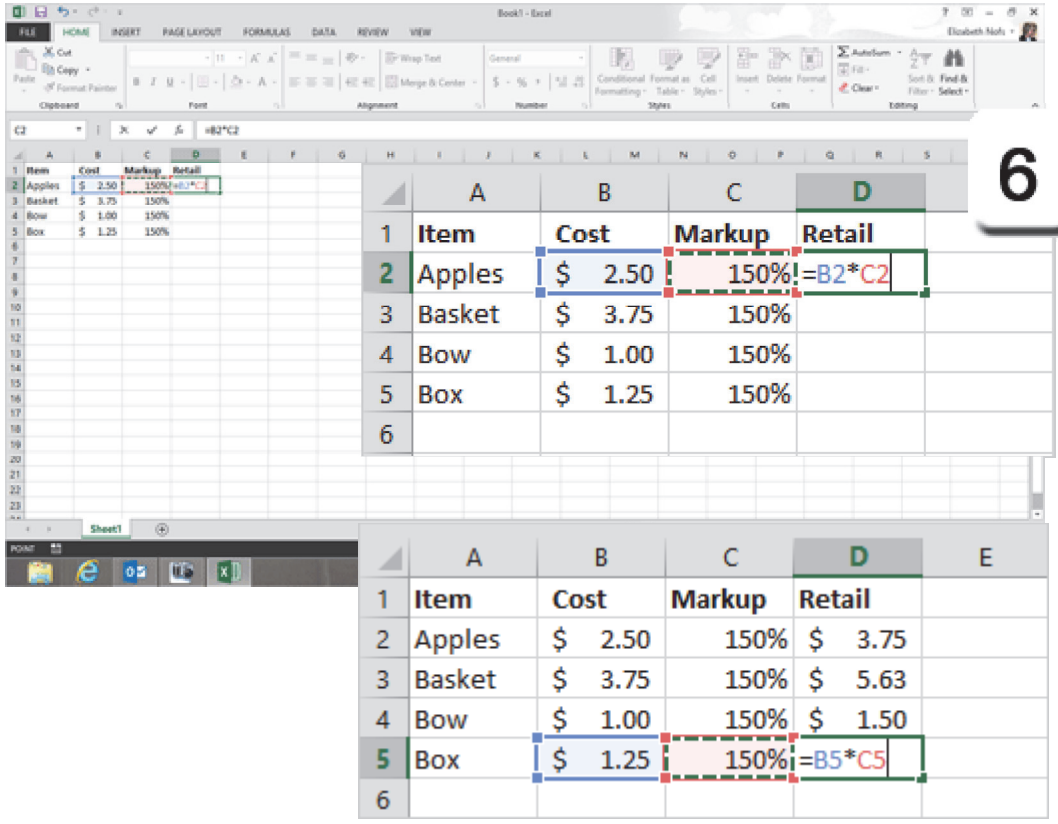
Click on Cell D2 to begin. Now, all equations in Excel start by entering the "=" sign. You will find it on your keyboard by the numbers row, a few buttons to the right of the 9.

The math will look like this: =B2*C2, where the multiply sign is the asterisk above the number 8 on your keyboard. You can type in the cell references for B2 and C2, or you can click on the cells.

Excel won't calculate until you leave the cell. When you are done with the equation use the Tab or Enter key on your keyboard.

The correct answer is $3.75.

Enter the formula for the other items in the fruit basket.



Memo to Self: The equation is different in each row. For example, the formula in **Cell D5** would be **=B5*C5**. This is an example of a RELATIVE cell reference.

Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions

Take One

How Much Does It Cost?

AutoSum creates the equation: =Sum(B2:B5).

In real words, that means: add up all the numbers in cell B2 through B5 for the apples, basket, bow and box.

Before You Begin: Look on the **Home** Ribbon for the **AutoSum** button. It looks like the Greek letter S, or sigma. When you roll your mouse over the toolbar, the tool tip says, “Sum.”

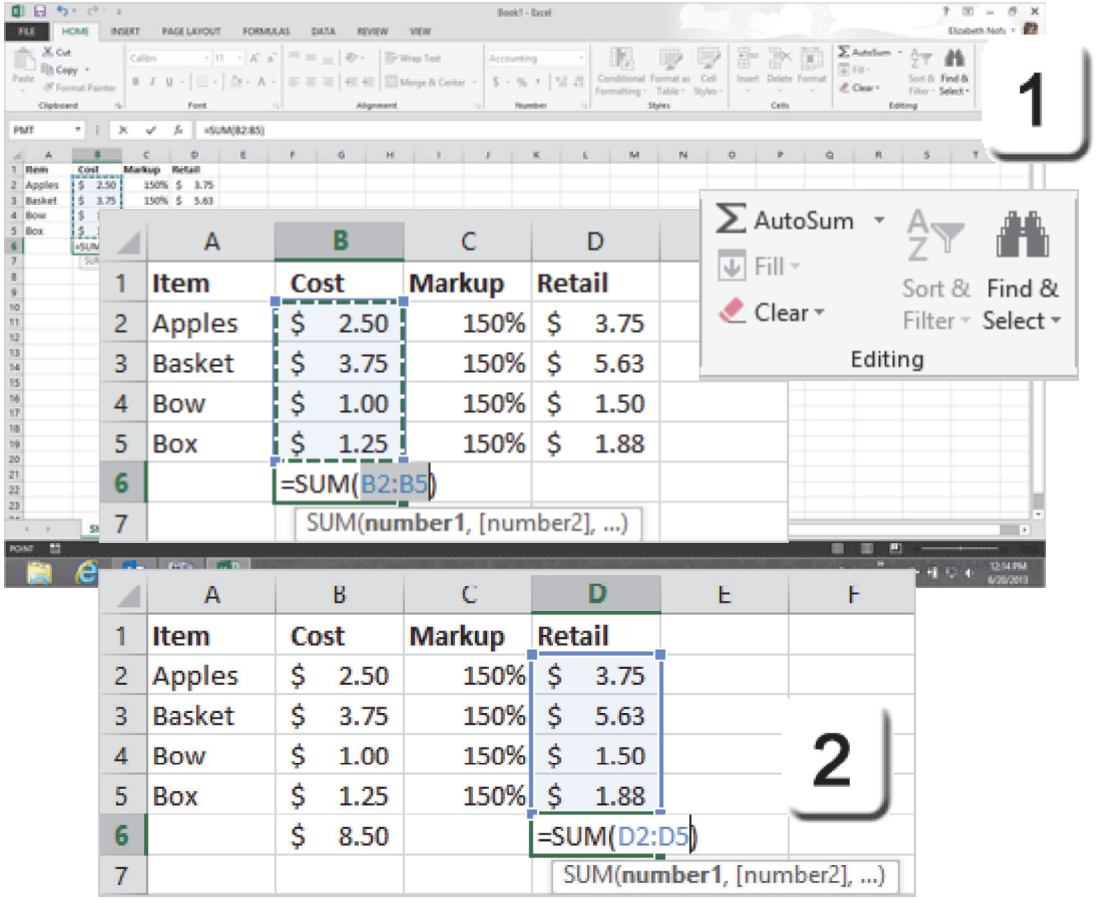
1. Try This: Calculate the Wholesale Cost
Select Cell B6.
Go to **Home -> Editing ->AutoSum.**

The wholesale price should be $8.50.

2. Try This: Calculate the Retail Cost
Select Cell D6, and then click on the **AutoSum**.
Did you get $12.75?

Memo to Self: Click on the **Enter** key on your keyboard to finish the equation and see the results. Excel won’t calculate until you leave the Cell.

Home -> Editing ->AutoSum



Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions: Demonstrate the SUM Function

Take One

Are You Making Any Money?

Profit is what you make after you pay for the costs. In our example, the equation is: =D2-B2.

3. Try This: Calculate the Profit
Select Cell E1 and type the label: Profit.
Select Cell E2 and enter the equation:
=D2-B2

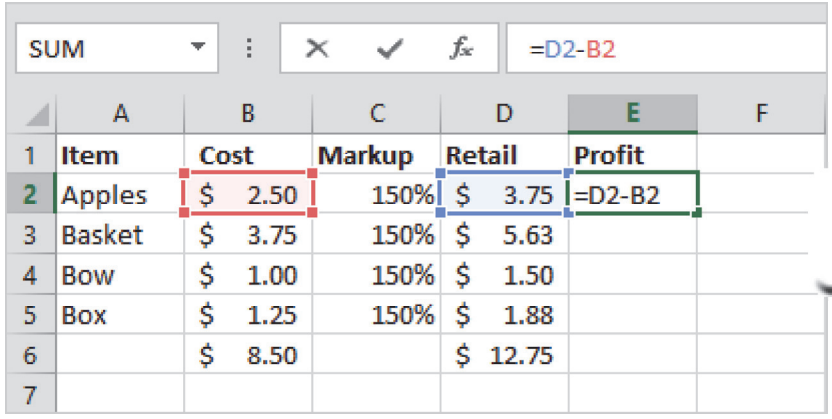
Copy and paste that equation into Cells E3 through E5.

4. Add This, Too: Sum up the Profit
Select Cell E6.
Go to **AutoSum.**

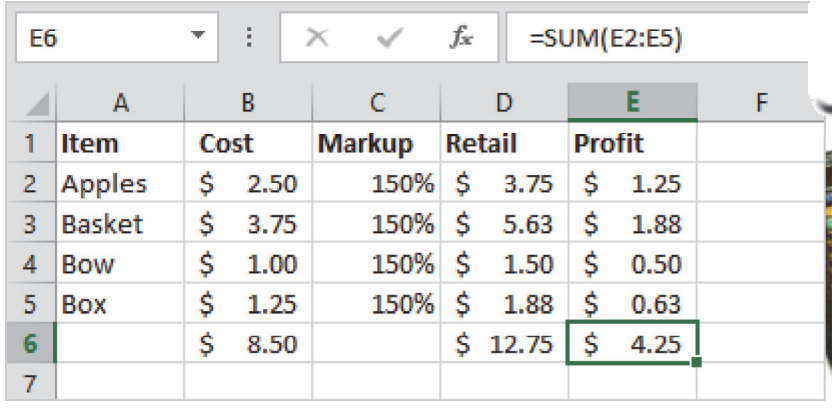
What Do You See? For each fruit basket that you sell, there is a profit of $4.25.

Keep going...

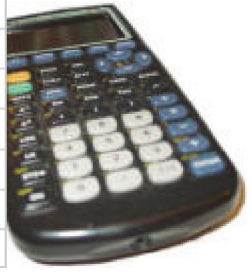
Home -> Editing ->AutoSum



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	=D2-B2	
3	Basket	$ 3.75	150%	$ 5.63		
4	Bow	$ 1.00	150%	$ 1.50		
5	Box	$ 1.25	150%	$ 1.88		
6		$ 8.50		$ 12.75		
7						



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
4	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
5	Box	$ 1.25	150%	$ 1.88	$ 0.63	
6		$ 8.50		$ 12.75	$ 4.25	
7						



Finishing Up

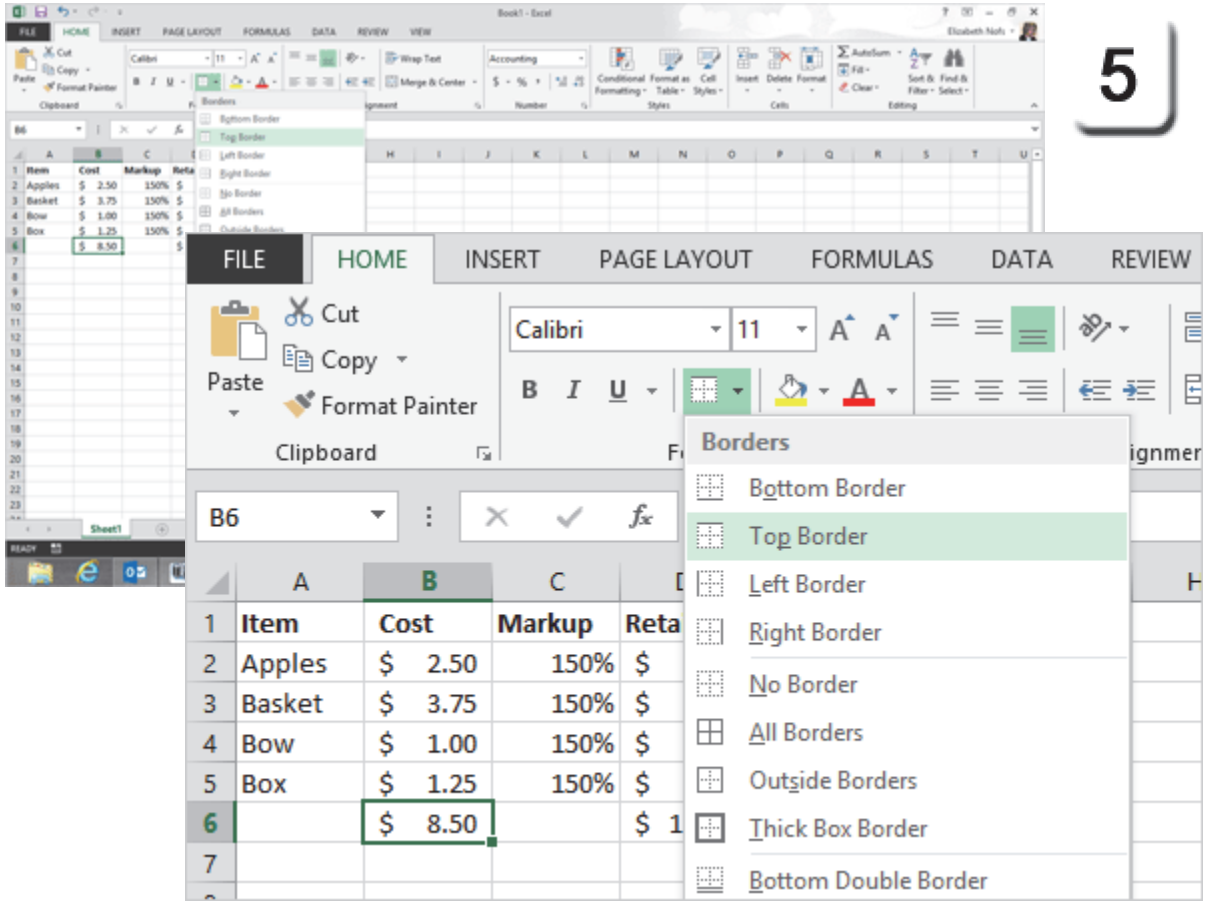
A **Top Border** tells anyone who reads this spreadsheet that the sums are calculated at the bottom of the column. It's a 'math thing' that folks know.

5. Try it: Format the Cell Borders
Select: Cell B6.
Go to **Home-> Font ->Borders**.
Select **Top Border**.

Add a **Top Border** to Cells D6 and E6, too.

Done and Done.

Home-> Font ->Borders



Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Change Font and Font Styles (Borders)

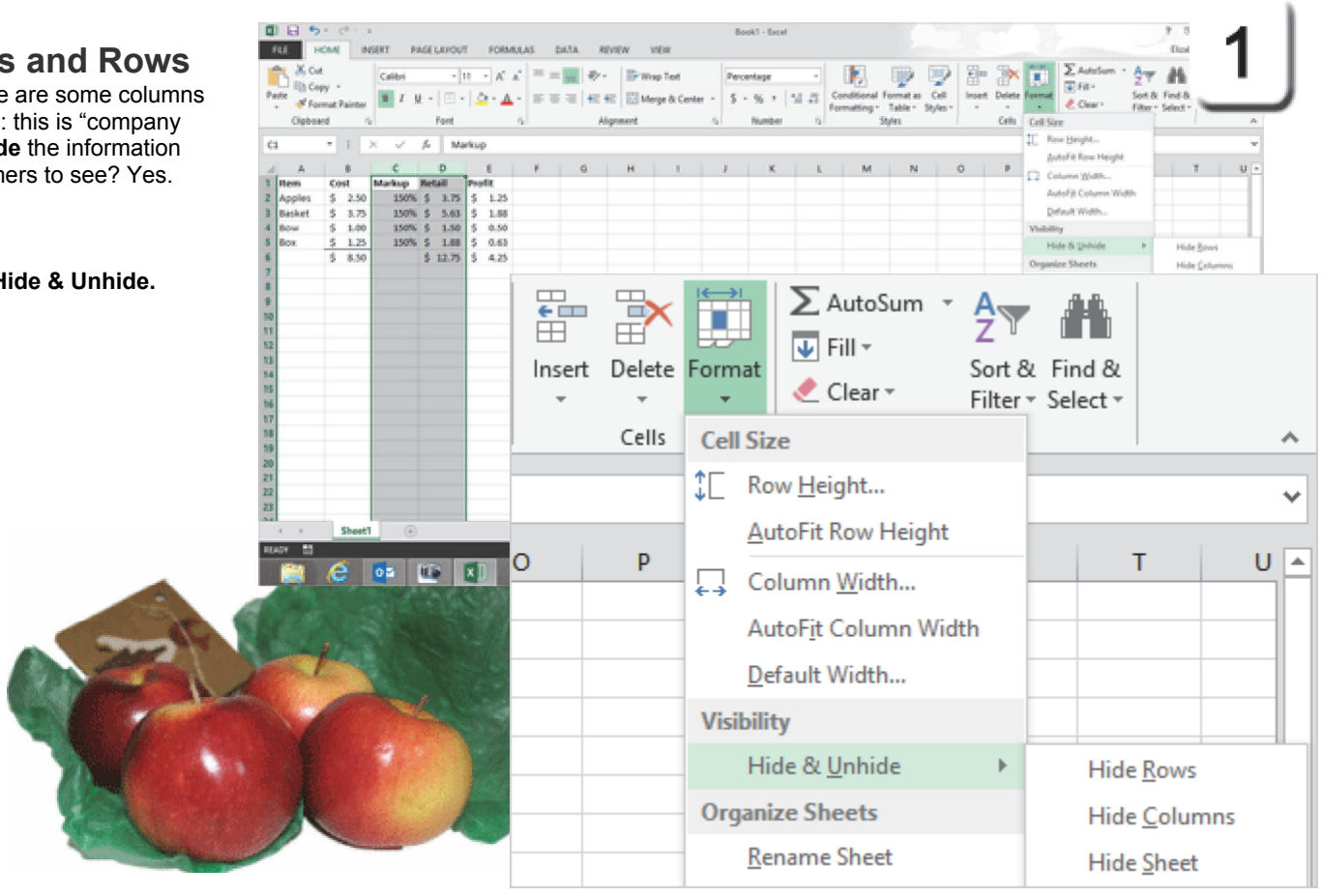
Format the Columns and Rows

It's a good price sheet, but there are some columns and rows that should be private: this is “company business.” Is there a way to **hide** the information that you don’t want your customers to see? Yes.

1. Try it: Hide the Column
Select Columns B and C.
Go **Home**->**Cells-> Format**-> **Hide & Unhide.**
Click on **Hide Columns**.

Keep going...

Home -> Cells-> Format ->Hide & Unhide



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views For Worksheets and Workbooks: Hide Columns and Rows

Take One

Hide & Unhide the Column

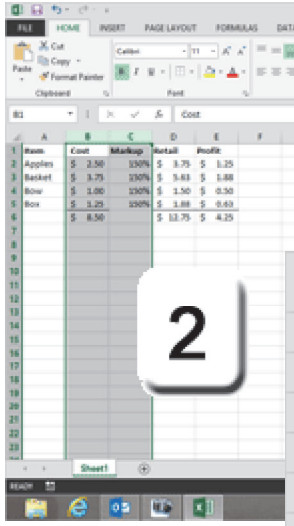
2. What Do You See? The image at the top of the screen has two hidden Columns. How can you tell? Look at the letters at the top of the Columns. Do you see: A, D, E and F? The hidden Columns are B and C.

There is a new, but subtle, clue that some Columns are hidden. Look carefully at the Column letters on Step 2. The border between the Columns is a double line (not single) when there are hidden Columns.

3. Try it: Unhide the Columns
Here are the steps you can take to show the hidden columns.
Select Columns A through E.
Go to **Home**->**Cells->Format->Hide & Unhide.**
Click on **Unhide Columns**.

What Do You See, Now? All of the columns, including the hidden ones, Column B and C, should be visible.

Home->Cells->Format->Hide & Unhide->Unhide Columns



2

	A	D	E	F	G
1	Item	Retail	Profit		
2	Apples	$ 3.75	$ 1.25		
3	Basket	$ 5.63	$ 1.88		
4	Bow	$ 1.50	$ 0.50		
5	Box	$ 1.88	$ 0.63		
6		$ 12.75	$ 4.25		

3

	A	B	C	D	E
1	Item	Cost	Markup	Retail	Profit
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25
3	Basket	$ 3.75	150%	$ 5.63	$ 1.88
4	Bow	$ 1.00	150%	$ 1.50	$ 0.50
5	Box	$ 1.25	150%	$ 1.88	$ 0.63
6		$ 8.50		$ 12.75	$ 4.25

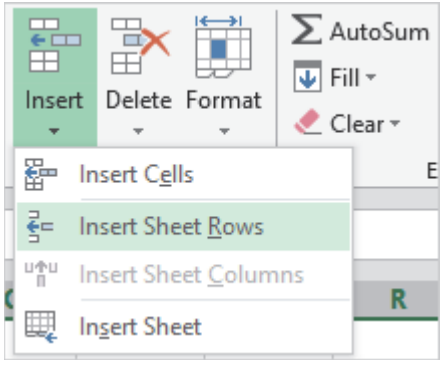
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Hide Columns and Rows

Take One

Insert a Row

You can **Hide** and **Unhide** the Rows as well. This little example shows you how.

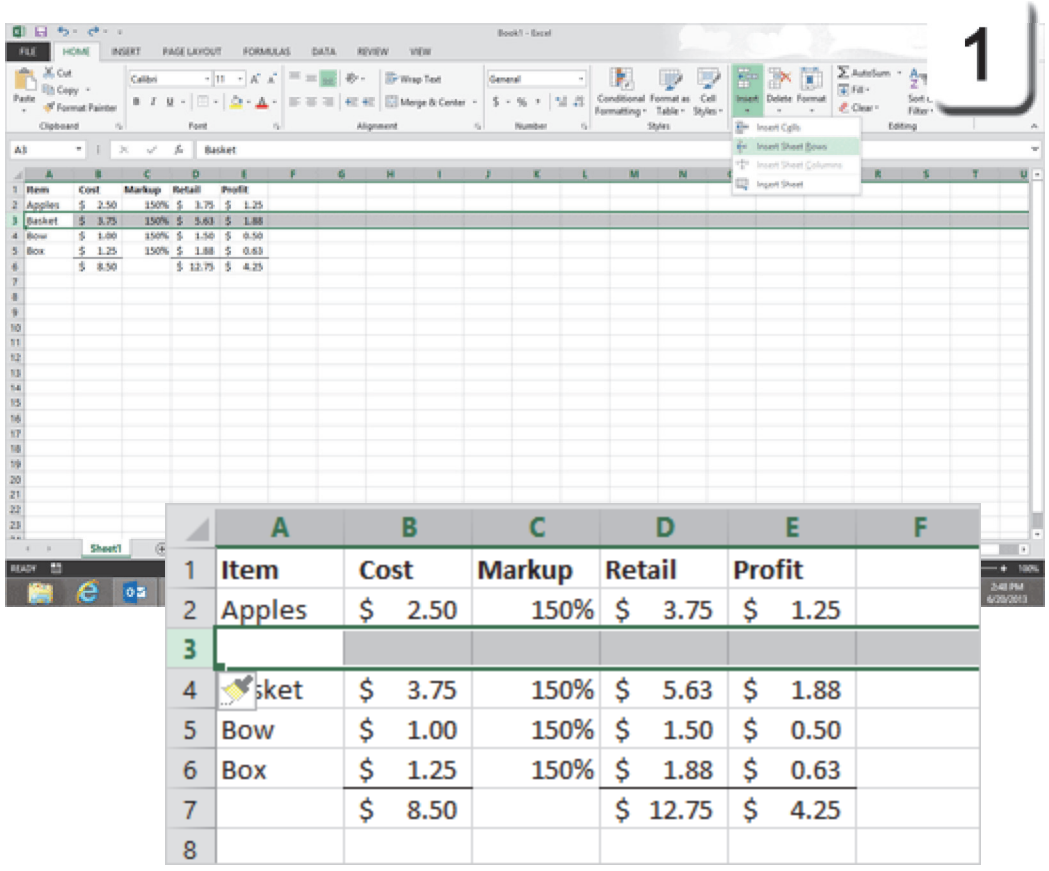
1. Try This: Insert a Blank Row
Select Row 3.
Go to **Home-> Cells-> Insert**.
Click on **Insert Sheet Rows**.



What Do You See? A new, blank Row 3 has been inserted between Row 2 and Row 4.

Keep going...

Home ->Cells-> Insert ->Insert Sheet Rows



Take One

Format the Rows

2. Look Again: Review the Options
When you insert a new Row, Excel may prompt you with a **Format Painter**. It looks like a little yellow paint brush.

When you click on the option arrow you will see:
Format Same As Above
Format Same As Below
Clear Formatting

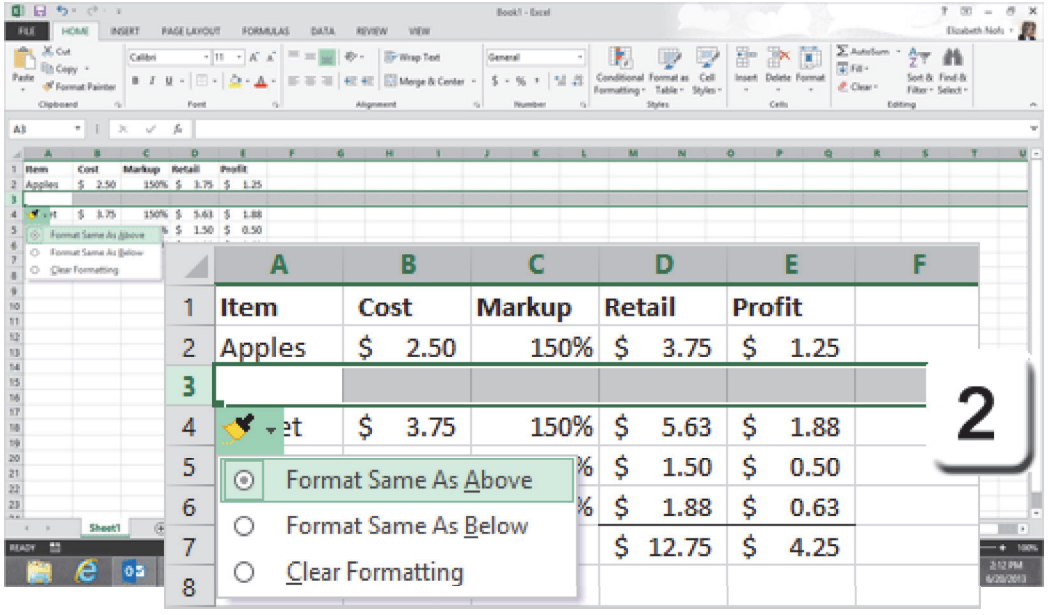
Format Same As Above means that the cells in the new Row will inherit the formatting of the cells above them. For example, Cell B3 will be formatted for Currency. Cell C3 will be formatted for Percentage.

OK, Do This:Format the Rows
Select: **Format Same as Above.**

3. Try This: Add Sample Data
Enter the following data in Row 3:
In Cell A3 type: Gift Card
In Cell B3 type: 10
In Cell C3 type: 150
Microsoft Excel will add the number formatting.

Keep going...

Home -> Cells-> Insert ->Insert Sheet Rows



	A	B	C	D	E
1	Item	Cost	Markup	Retail	Profit
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25
3	Gift Card	$ 10.00	150%		
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88

3

Take One

Hide and Unhide the Rows

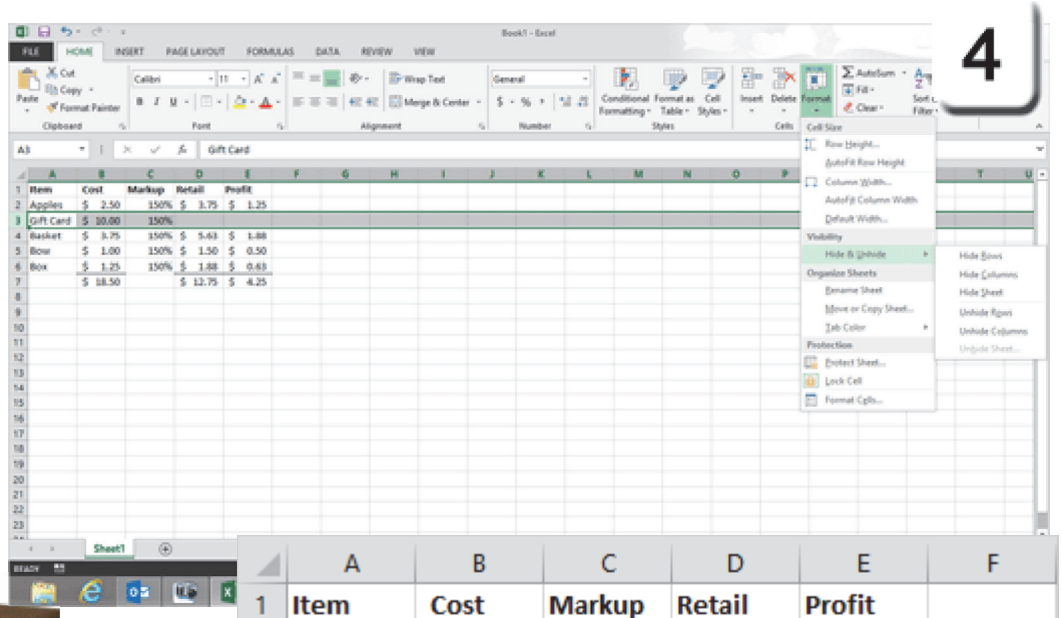
4. Try it: Hide the Row
Select Row 3.
Go to **Home->Cells->Format ->Hide & Unhide.**
Click on **Hide Rows**.

Look at the Row numbers. Do you see: 1, 2, 4 and 5?
Row 3 is hidden.

Try This, Too: Unhide the Row
To see Row 3 again, select Rows 2 through 4
Go to **Home ->Cells-> Format ->Hide & Unhide.**
Click on **Unhide Rows.**

What Do You See, Now? All of the Rows, including the hidden one, should be visible.

Home->Cells-> Format->Hide & Unhide->Hide Rows



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 12.75	$ 4.25	
8						



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Hide Columns and Rows

Take One

Another Way to Format the Cells

You can format the Rows and Columns with your mouse as well as with the Ribbons.

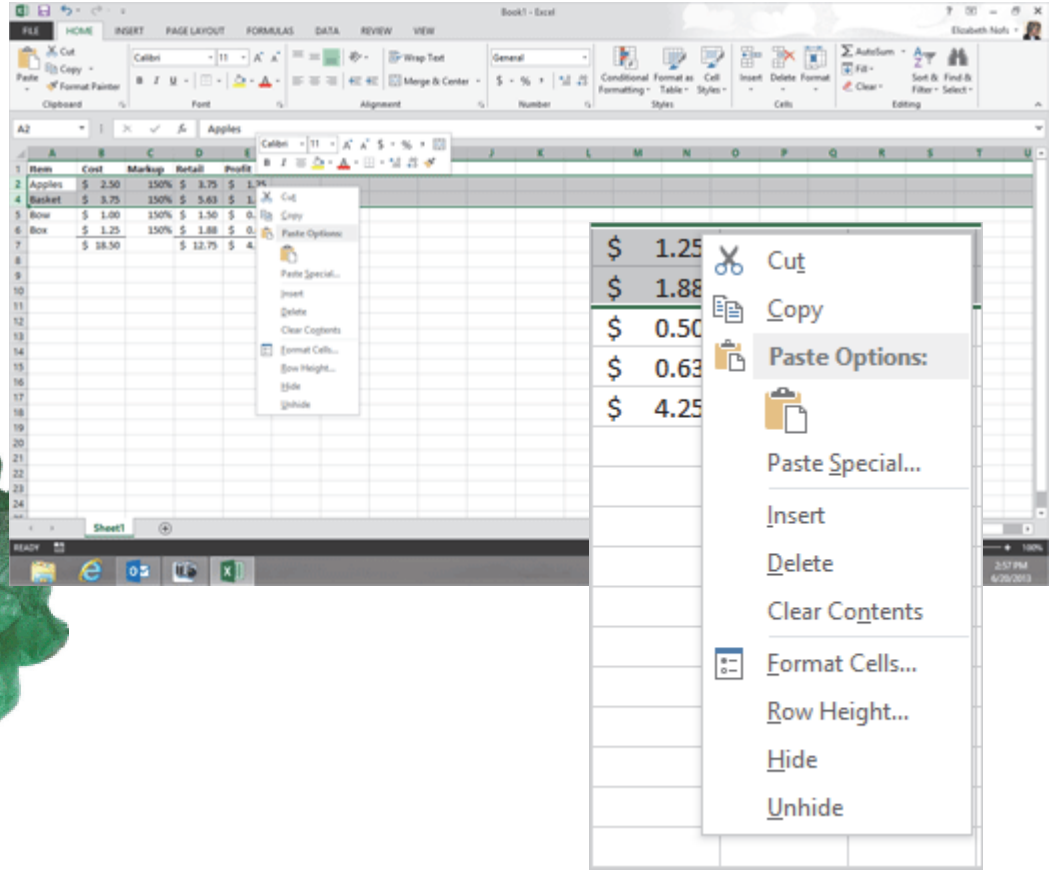
Try This: Use the Right-Click Menu
Select Rows 2 through Row 4.
Right Click Rows 2 through Row 4.

What Do You See? The options available on the Right Click menu include:
Cut
Copy

Paste Options
Paste Special...
Insert
Delete
Clear Contents
Format Cells...
Row Height...
Hide
Unhide.



Right Click Options



Take One

Fill in the Formulas

There are two equations that need to be added to this price sheet.

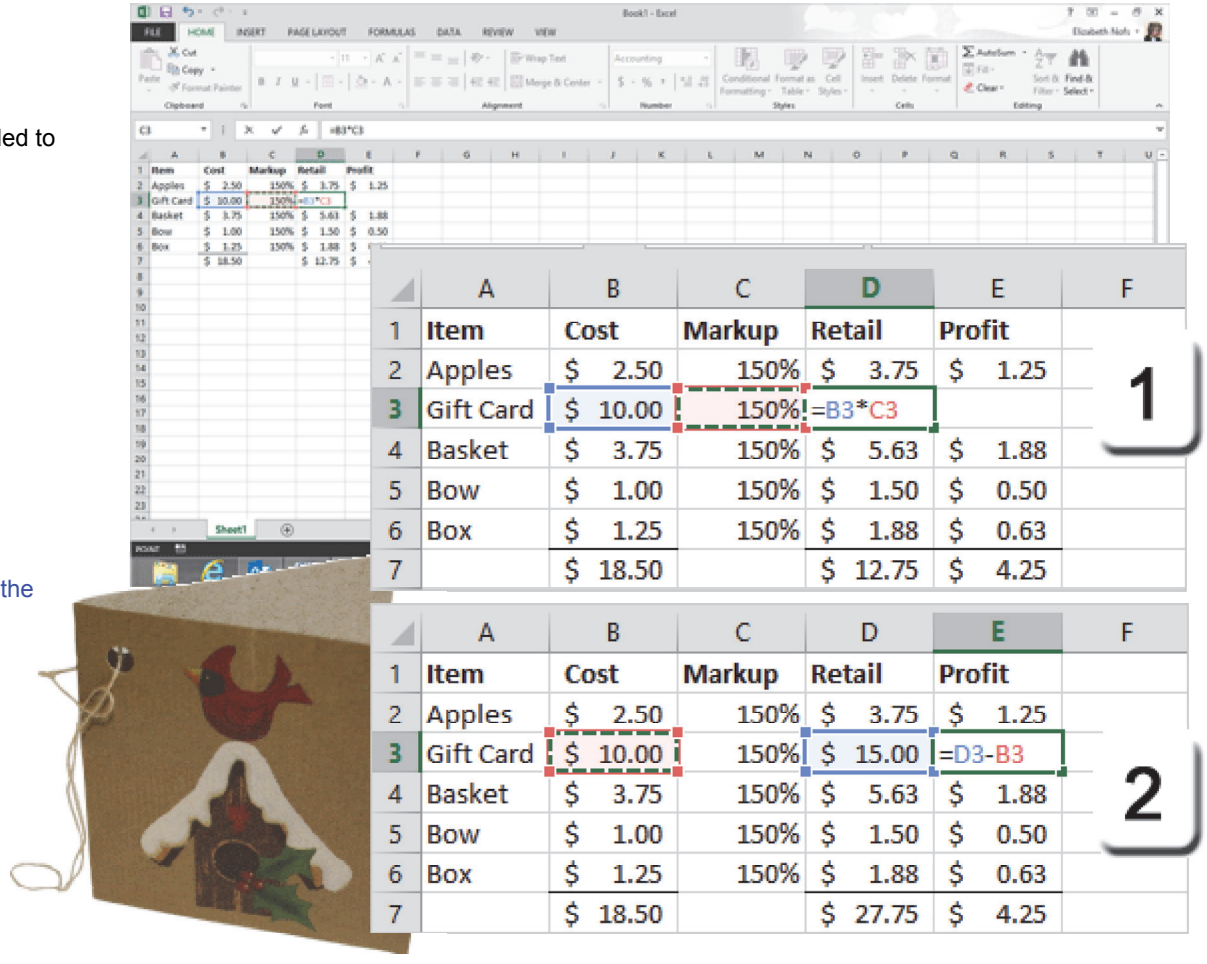
1. Try it: Calculate the Retail
Select Cell D3.
Type: =B3*C3

2. Try This: Calculate the Profit
Select Cell E3.
Type: =D3-B3.

Click ENTER on the keyboard.
You should see an answer: $5.00.

Profit is good!

Memo to Self: All good equations start with the equals sign (=).



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	=B3*C3		
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 12.75	$ 4.25	

1

	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	$ 15.00	=D3-B3	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 27.75	$ 4.25	

2

Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions (Multiply, Subtract)

Take One

Find the Cell Styles

Microsoft Excel has a rich gallery of **Cell Styles**. The Cell Styles format the Text, Cell Color and Borders. The Cell Styles can be found on the Home Ribbon. Let's take a look.

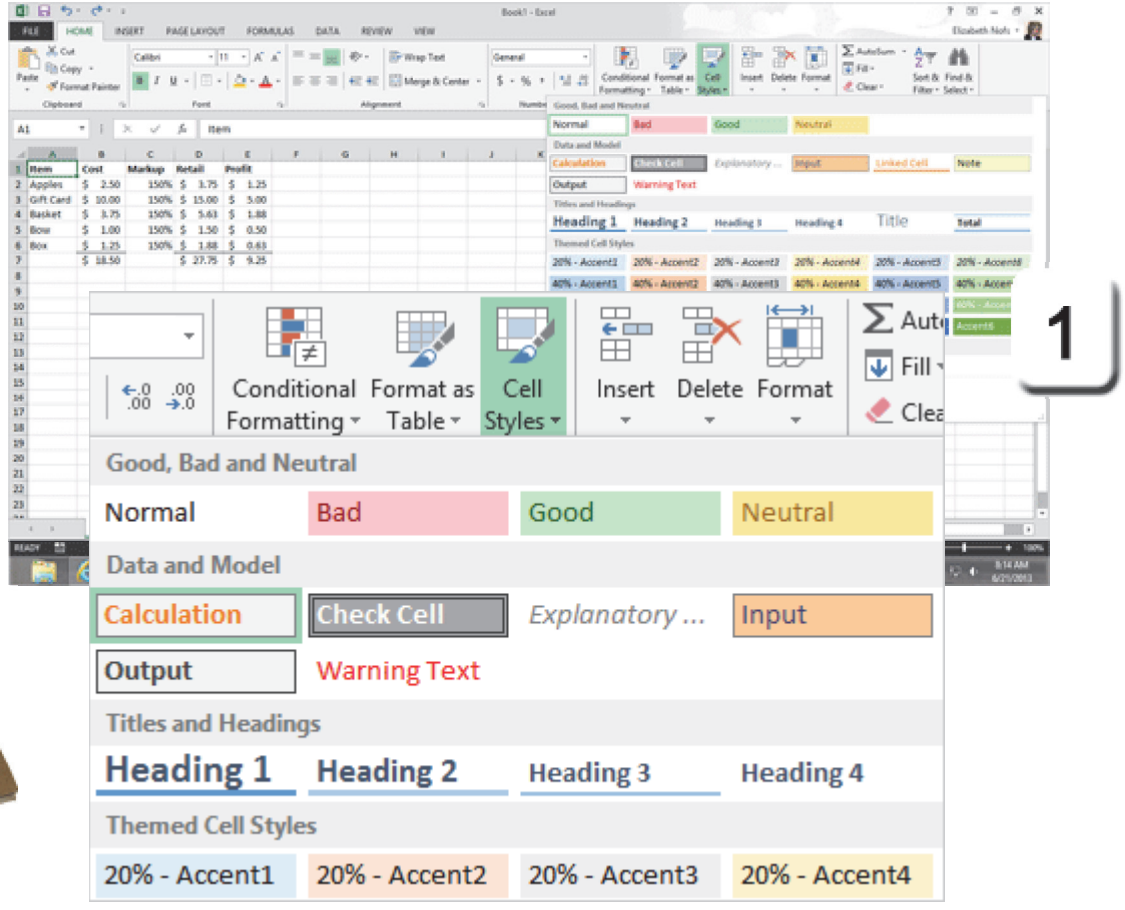
1. Try it: Apply Cell Styles
The little price sheet is still open.
Go to **Home->Styles->Cell Styles**.

What Do You See? The Cell Styles include:
Good, Bad, Neutral
Data and Model
Titles and Headings
Themed Cell Styles
Number Format

Keep going...



Home -> Styles-> Cell Styles



1

Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Apply Cell Styles

Take One

Use the Cell Styles

Say you wanted to use this little price sheet for data entry. You can format the Cell Styles to show which Cells are for Input and which ones are Calculated (no data entry).

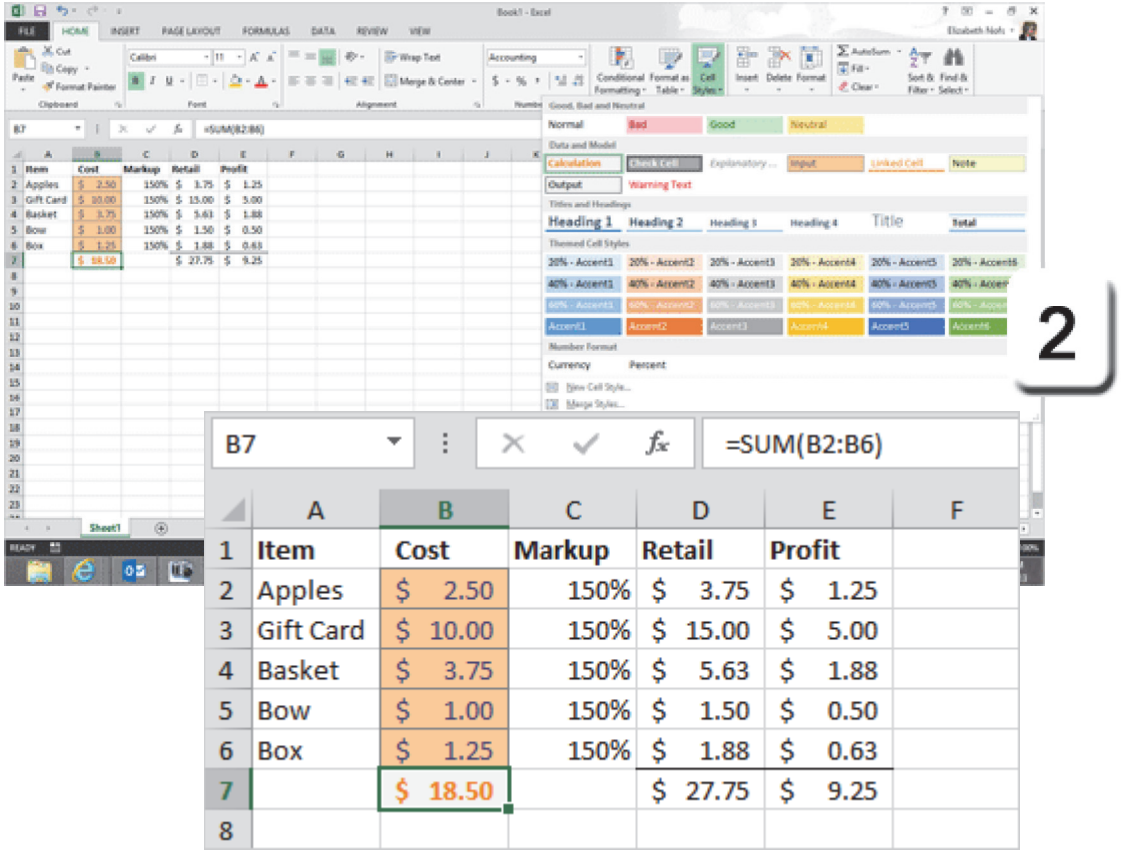
2. Try it: Apply a Cell Style
Select Cells B2 through B6.
Go to **Home->Styles->Cell Styles**.
Select a Style: Input.

And Try This: Apply a Different Cell Style
Select Cell B7.
Go to **Home->Styles->Cell Styles**.
Select a Style: Calculation.

What Do You See? The Cells are formatted differently giving your users strong visual clues.

That works.

Home -> Styles->Cell Styles



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 27.75	$ 9.25	
8						

Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Apply Cell Styles

Take One

Save Your Work

This is a good time to **Save** your work.

Microsoft Excel 2007, 2010 and 2013 have a different file format than previous versions of Excel. This lesson will show how to use the Save options to create versions of your work that are backwards compatible.

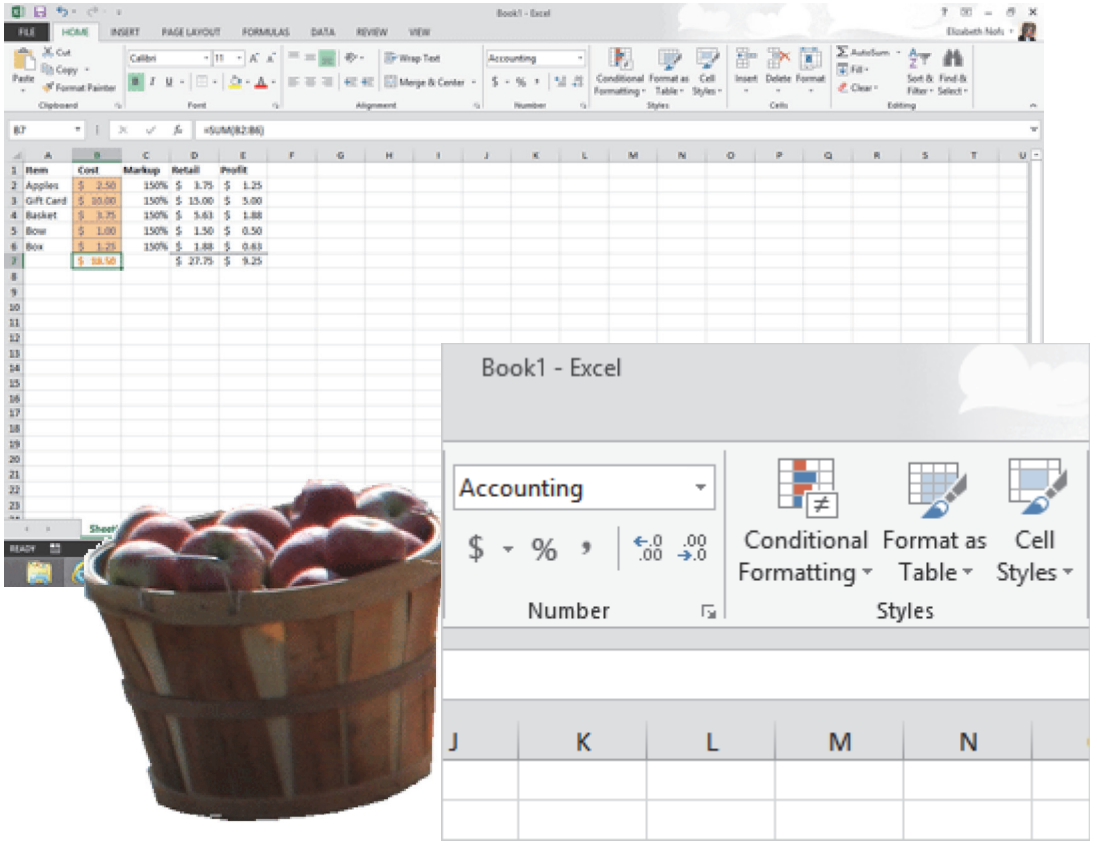
What Do You See? At the top of the screen you might see Book1-Microsoft Excel.

New spreadsheets are named Book1. That is the clue that they are NOT saved.

Keep going...

Memo to Self: It may say Book2, 3 or whatever depending on how many spreadsheets you opened. That is OK.

Microsoft Excel: Book1



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.5 Configure Worksheets and Workbooks to Print or Save

Take One

Save a Spreadsheet

There are three parts to saving a file:
1. Where are you saving it?
2. What are you naming it?
3. What are you doing? SAVE!

These are the steps to save your work and find a folder to keep it in.

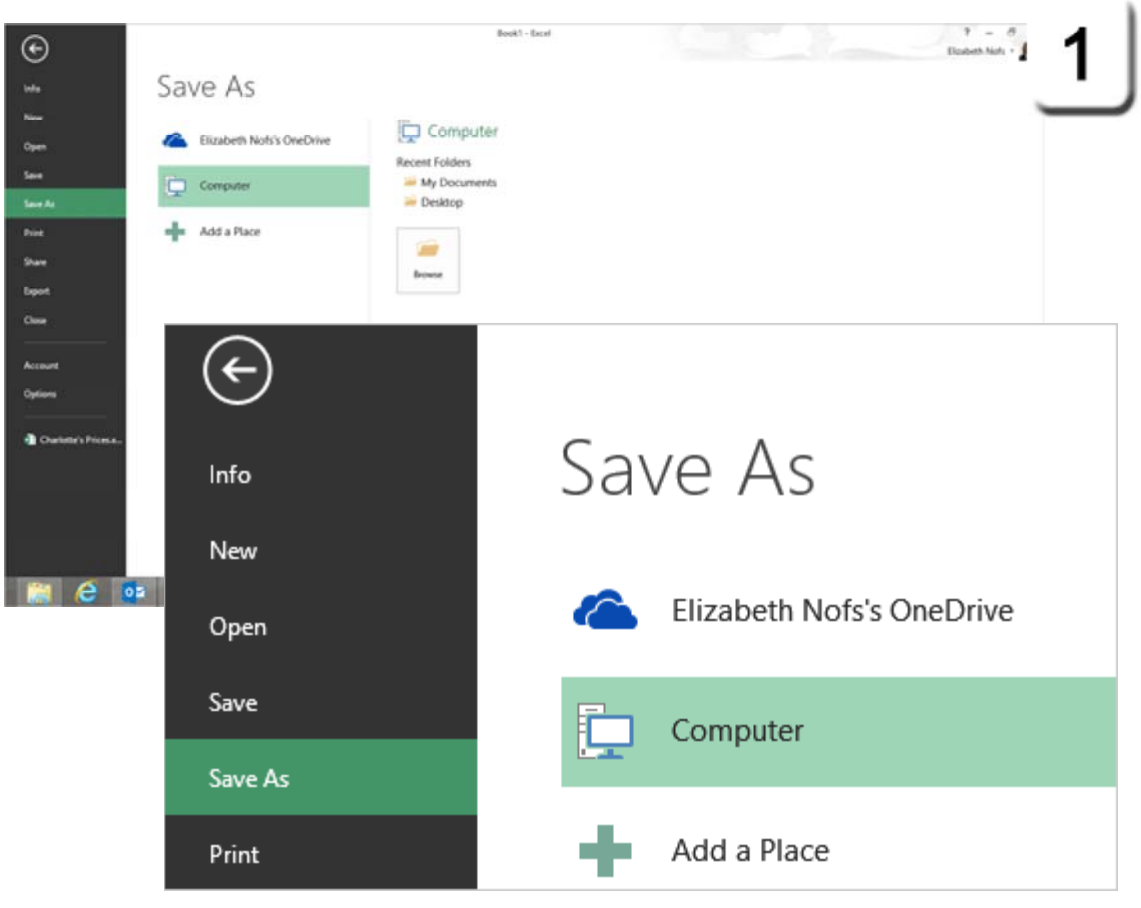
1. Try This: Save a Spreadsheet
Go to **File ->Save**.

Keep going...

Save or Save As? Both options take you to the same window. You can use Save As to create a different version of a file if you wish. We will look at an example in a couple of pages.

Memo to Self: You can go back to the spreadsheet by clicking on the left arrow at the top of the options list if you wish.

File->Save



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.5 Configure Worksheets and Workbooks to Print or Save

Take One

Where Are You Saving It?

There are several places you can choose to save your work. Each place has benefits as well as considerations.

The OneDrive is a virtual drive online: a folder on Microsoft's server somewhere in cyberspace. We will Save to the OneDrive later in the Intermediate lesson: Excel Online.

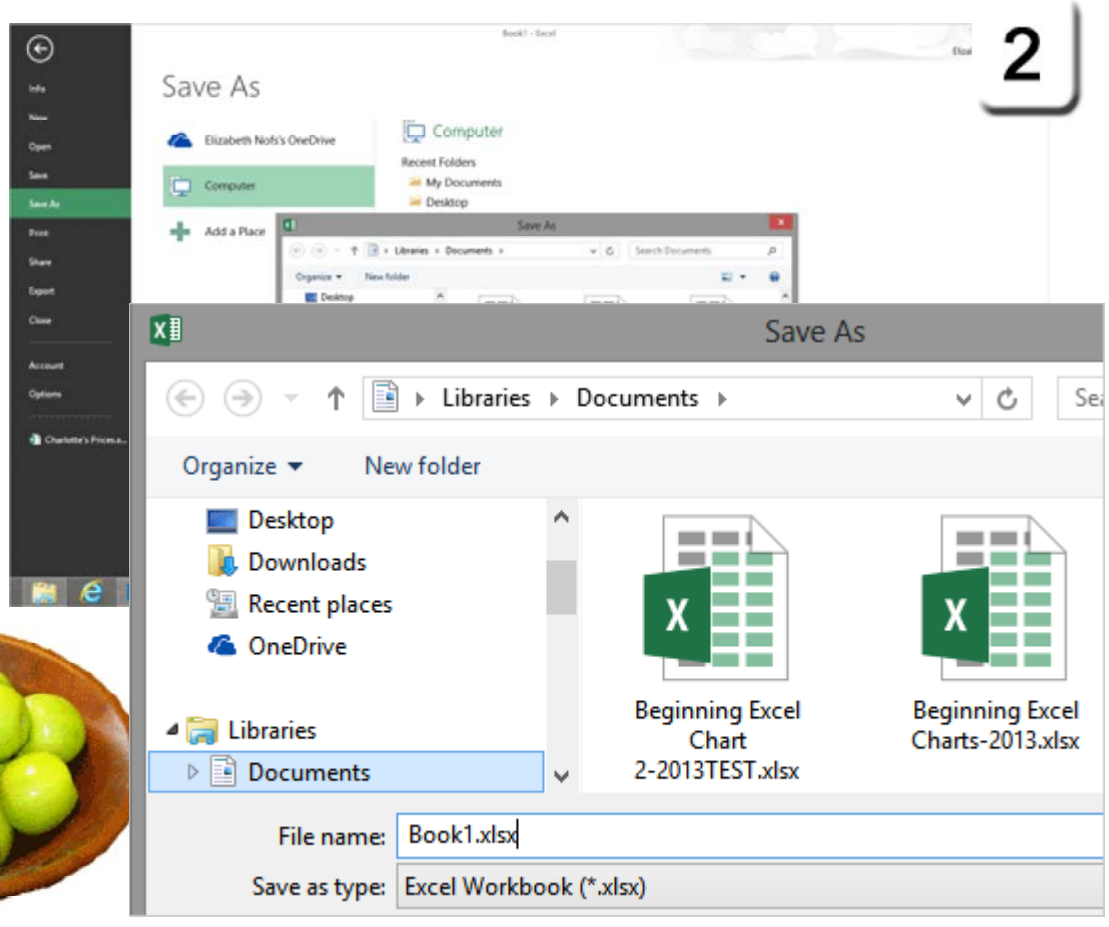
This lesson will save the spreadsheet to the **Documents** folder on your computer.

2. Try This: Save to the Computer
Select **Computer**.

What Do You See? You should see the Documents Folder. It is one of the Libraries in the Favorites Folder on your computer.

Keep going...

File->Save





Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.5 Configure Worksheets and Workbooks to Print or Save

Save: What Are You Naming It?

3. Try This: Name the File
Type the File Name: Charlotte's Prices

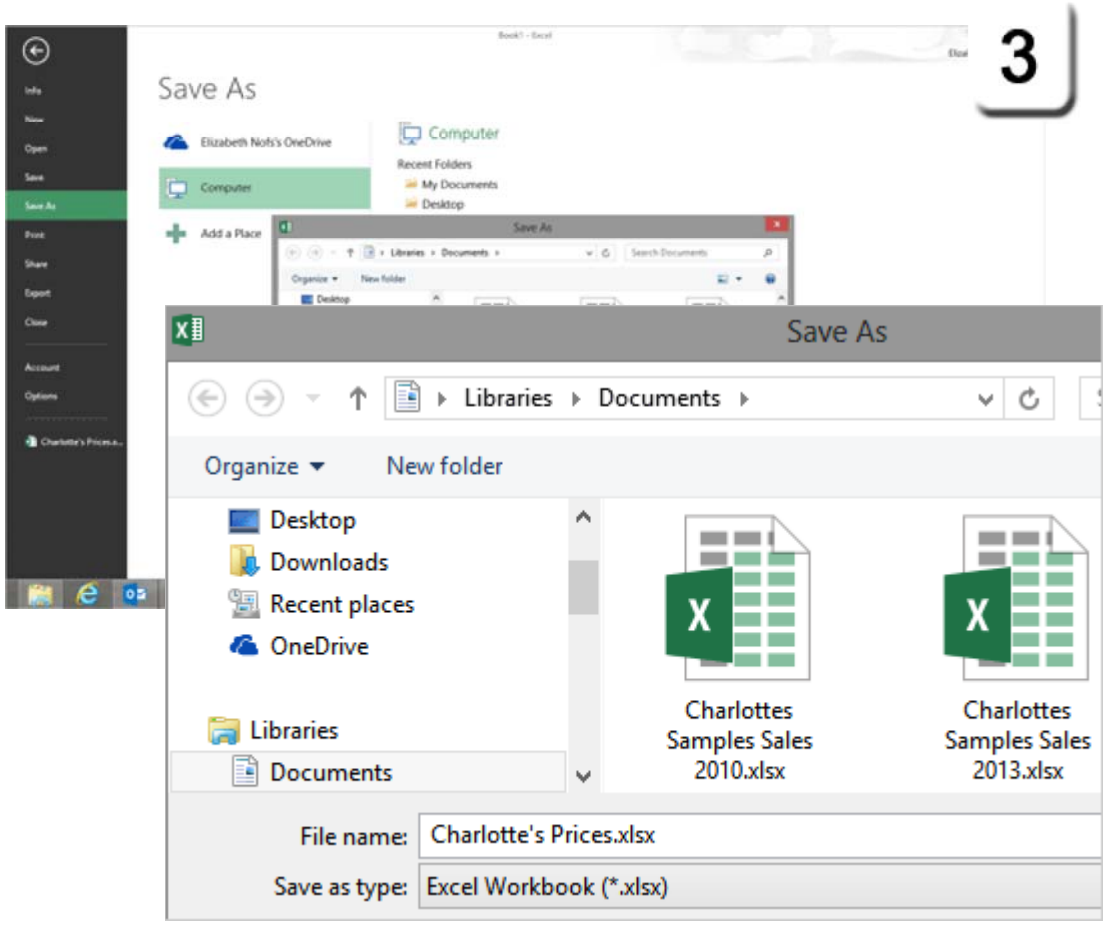
What Do You See? The new file type in Microsoft Excel 2007, 2010 and 2013 is the **xlsx** format.
The **.xlsx** format looks like a Excel spreadsheet, but it is the new international Open Office standard.

So....What Are You Doing?
Click on **Save**.



When you click **Save**, your file will be named, date stamped, and stored in the Documents folder.

File-> Save



Save As Office 97-2003

When you save a new spreadsheet in Microsoft Excel 2007, 2010 or 2013, you should be aware that this is a new file format and that companies with an older version of Microsoft Excel might not be able to open or edit it.

Here are the steps to save a copy of this spreadsheet in the Excel 97-2003 file format.

Try it: Save As Previous Version
Go to **File ->Save As.**
1. Where Are You Saving It?
You can use the Documents folder if you wish.

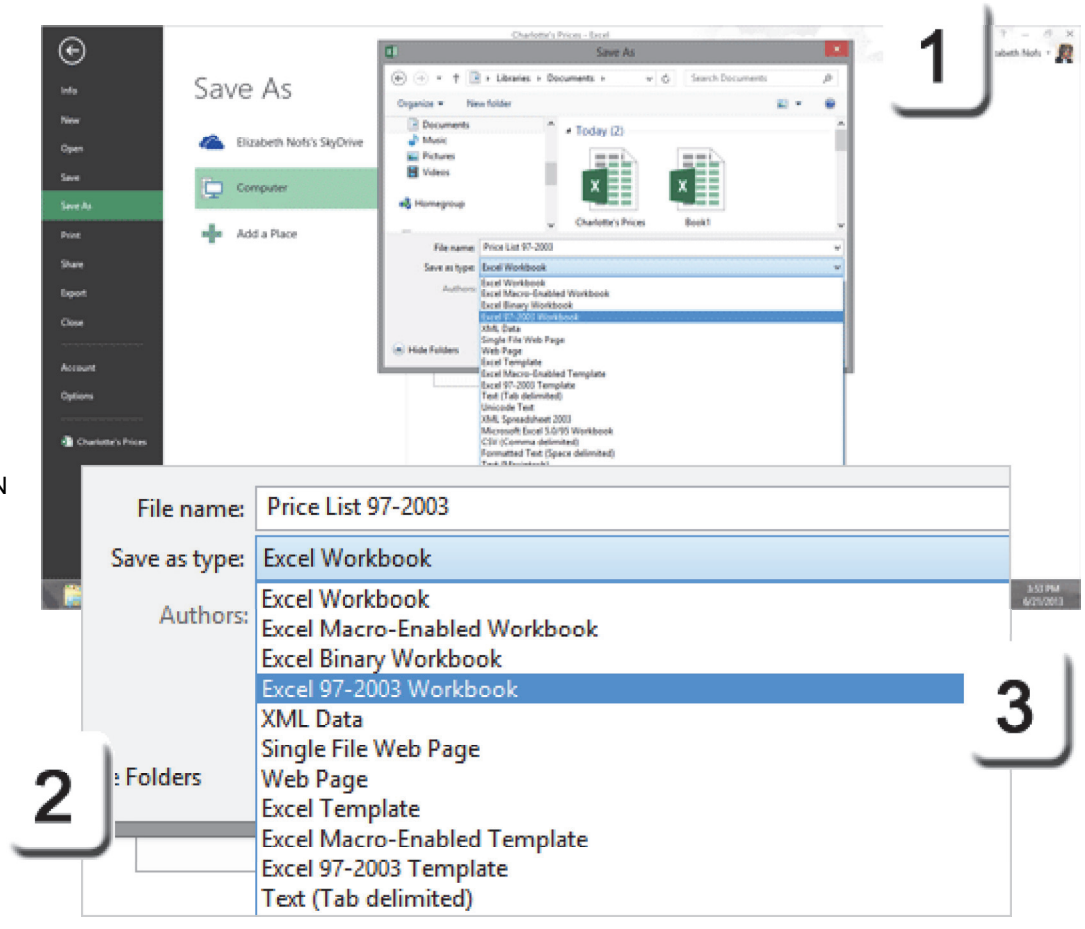
2. What Are You Naming It?
Type the File Name: Price List 97-2003 EAN, where EAN are your initials.

Select a different file **Type**: Microsoft Excel 97-2003. This is the file type that is compatible with most businesses, schools and government departments.

3. What Are You Doing?
Click on **Save.**

Keep going...

File->Save As



Take One

File->Save As

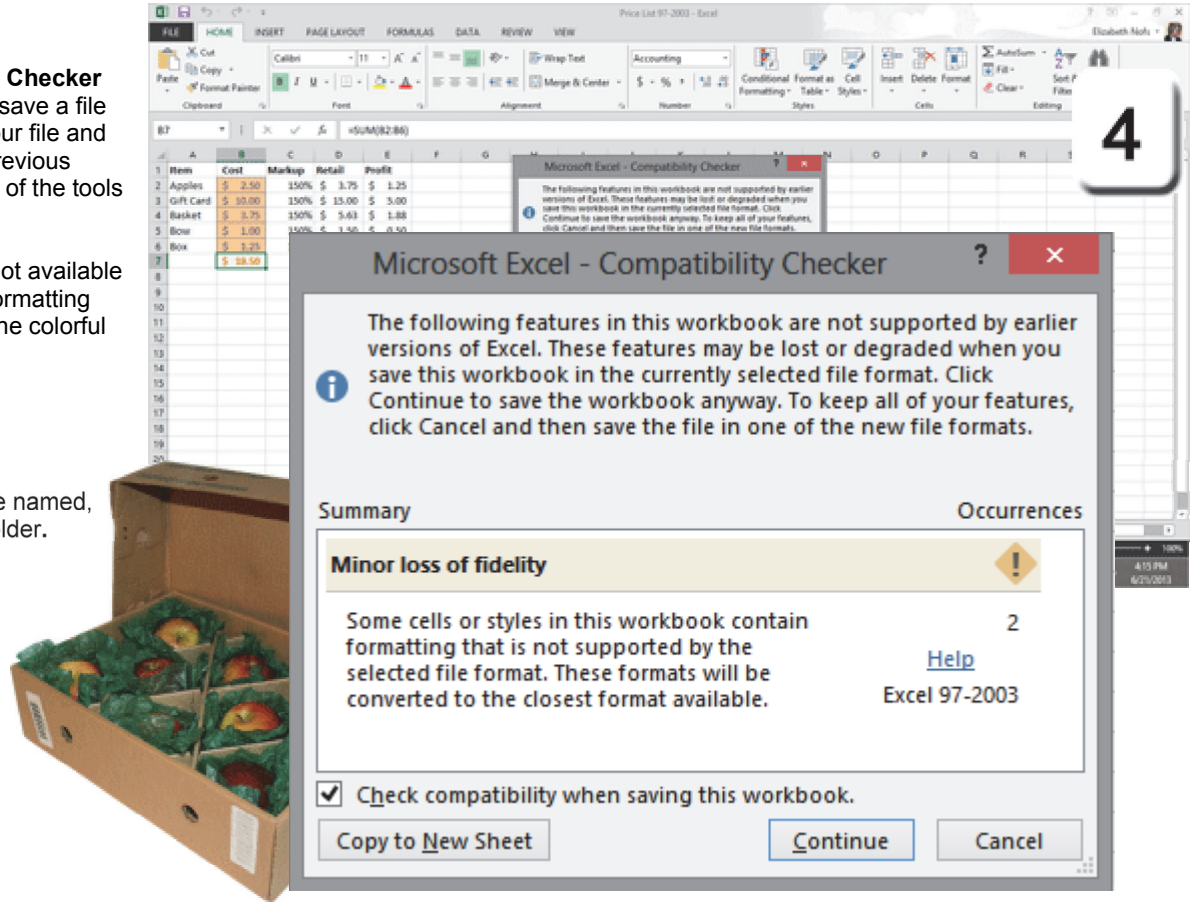
Save As Office 97-2003

4. And What's This? Meet the Compatibility Checker
The Compatibility Checker pops up when you save a file to the previous version. This checker scans your file and determines which features won't work in the previous version of Excel. Old software doesn't have all of the tools as new software.

Our spreadsheet uses Cell Styles, which are not available in Excel 97-2003. So, the numbers and their formatting (currency, percent) will still be saved, but not the colorful Style formatting. No data is lost.

3. Finally, Do This: Continue
Click **Continue** to finish and **Save.**

Again, when you click on **Save**, your file will be named, date stamped, and stored in the Documents folder.



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.5 Configure Worksheets and Workbooks to Print or Save: Maintain Backward Compatibility

Take One

Where Did You Save It?

By default, Microsoft Office saves files in the Documents folder. You can change the default location if you wish. This option can be found under the **File** menu in the new **Backstage**.

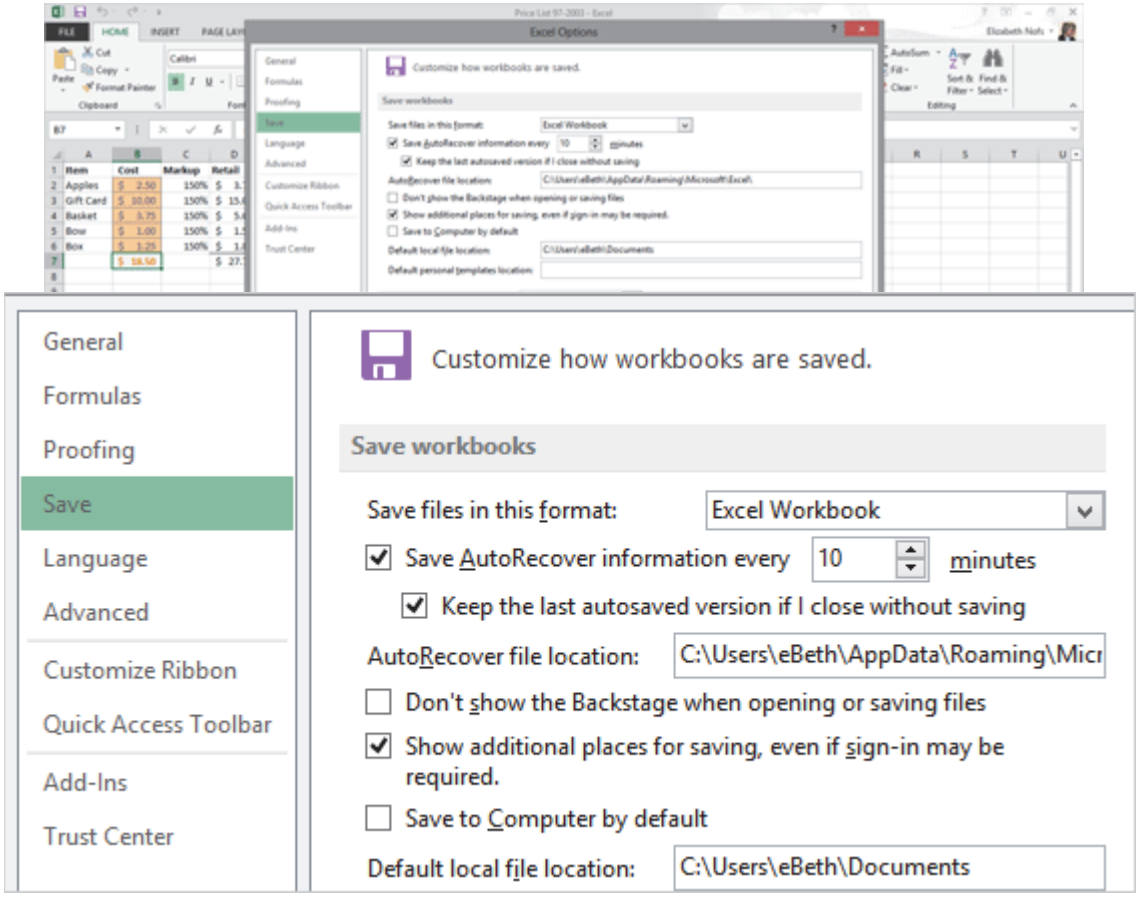
Try This: Find the Default Location for Saving Your Spreadsheets
Go to **File ->Options**.
Select the category: **Save**.

What Do You See? You can use the **Browse** button to find and select a different folder to be the default location when you Save a file.

What Else Do You See? The AutoRecover saves your work every 10 minutes. By default, Microsoft Excel keeps the last **autosaved** version, even if you close without saving.

Please **OK** to close the Excel Options.

File -> Options ->Save



Summary

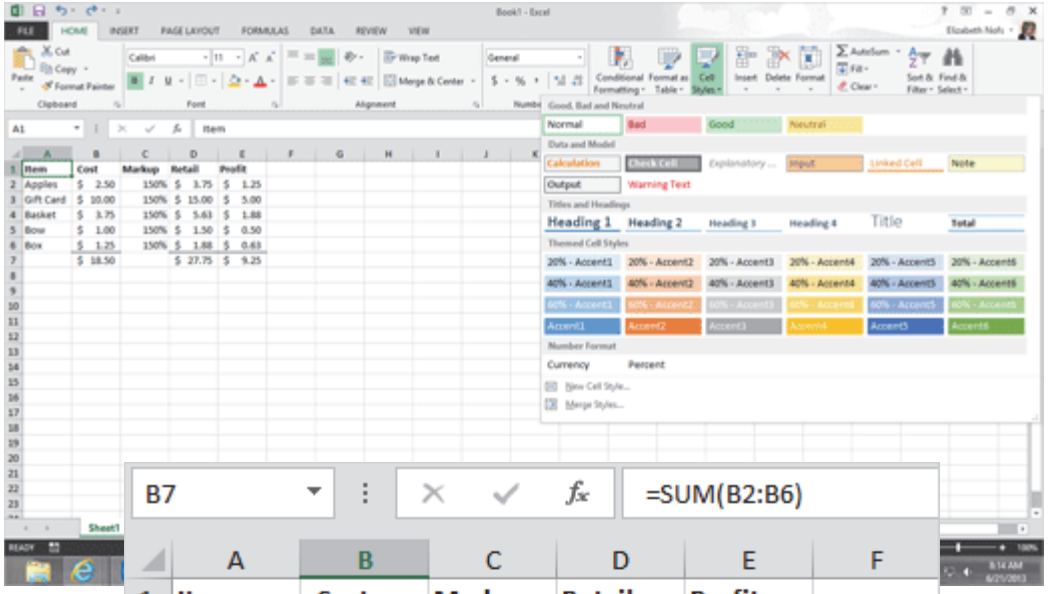
This lesson introduced the basic steps needed to create a price sheet: Labels, Data and Formulas. The lesson also reviewed the formatting options on the Home Ribbon, including the AutoSum.

This lesson also walked through the steps for saving a spreadsheet in the new Excel format as well as in the legacy Office 97-2003 format. It is important to be aware that many offices have not upgraded to Microsoft Office 2007, 2010, or 2013 yet.

Well, you done good.
Go get a cookie and I will see you on the flip side.



Completed speadsheet in Microsoft Excel



B7 =SUM(B2:B6)

	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 27.75	$ 9.25	
8						

Practice Activities

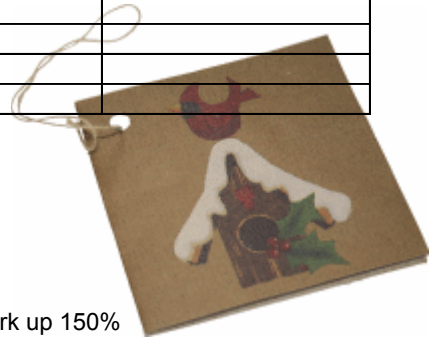
Lesson 3: It All Adds Up

Before You Begin: Start Microsoft Excel 2013. When the Welcome screen appears, open a new, blank spreadsheet.

Try This: Do the following steps

1. Enter the following data into your spreadsheet.

	A	B	C	D	E
1	Item	Cost	Mark Up	Retail	Profit
2	Mugs	2.00	150%		
3	T-Shirts	5.00	150%		
4	Balloons	0.50	150%		
5	Hats	3.50	150%		
6	Sweatshirts	8.00	150%		
7	Tote Bags	10.00	150%		



2. Enter the following formula in Cell D2 =B2*C2
3. Copy and paste the formula into the rest of Column D
4. Enter the following formula inCell E2 =D2-B2
5. Copy and paste the formula into the rest of Column E
6. Use the AutoSum tool to find the Sum of the Profit Column
7. Select the area of the spreadsheet with Data and apply Cell Style Neutral
8. Insert a blank row between T-Shirts and Balloons. Add the following information: Children's Shirts, cost $3.00, mark up 150%
9. Copy and Paste the retail and profit formulas in the row for Children's Shirts
11. Format the data labels in Row A to be Bold and 14 point font
12. Format the Column for Mark Up to be Percentage.
13. Correct the numbers in the Mark Up column to read 150% (not 15000%)
14. Format the Cost, Retail and Profit columns to be Accounting.
15. Change the mark up on T-Shirts, Sweatshirts, and Children's T-Shirts to be 125%

Save your work as Excel Practice Activity 1

Test Yourself

1. All equations in Excel begin with the equals sign =
a. True
b. False
Tip: Beginning Excel, page 56

2. Excel won't calculate a formula until you leave the cell.
a. True
b. False
Tip: Beginning Excel, page 56

3. Which of the following is available when you right-click a selected row? (Select all correct answers.)
a. Insert
b. Delete
c. Clear Contents
d. Hide
Tip: Beginning Excel, page 65

4. Cell Styles format which of the following? (Select all correct answers.)
a. Text
b. Cell color
c. Cell border
Tip: Beginning Excel, page 67

5. What is the default name for an unsaved Excel spreadsheet?
a. Book1
b. Document 1
c. Excel 1
d. Spreadsheet 1
Tip: Beginning Excel, page 69

6. What would you use the Save As command for?
(Select all correct answers.)
a. Save the file in the 97-2003 format
b. Save the file with a different file name
Tip: Beginning Excel, pages 71, 73

7. Which one of these formulas is written correctly?
a. =B2*C2
b. B2*C2
c. B*C2
d. B*C
Tip: Beginning Excel, pages 56, 57



A Question of Balance

Beginning Excel Objectives

In this lesson you will learn how to:

1. Review how to enter labels and data.
2. Review how to calculate the balance.
3. Identify methods to audit your equations.
4. Use currency formatting on the Home Ribbon.
5. Identify the options that format the decimals.
6. Use formulas for SUM, AVERAGE, COUNT.
7. Learn the COUNTA Function.
8. Practice the Max and Min Functions.
9. Use the IF Logical Function.

	A	B	C	D	E	F
1	Check Number	Date	Description	Check	Deposit	Balance
2						$ 500.00
3	100	7/1/2013	Office Supplies	$ 78.50		$ 421.50
4	101	7/2/2013	The Phone Store	$ 180.00		$ 241.50
5	102	7/3/2013	The Electric Co	$ 160.00		$ 81.50
6		7/6/2013	Deposit		$ 500.00	=F5-D6+E6
7						$ 581.50



Lesson 4: A Question of Balance

1. Readings

Read Lesson 4 in your Beginning Excel Guide, page 81-101.

Project

A checkbook and a spreadsheet that compares employee salaries to the average.

Downloads

Checkbook 2013.xlsx (Completed)

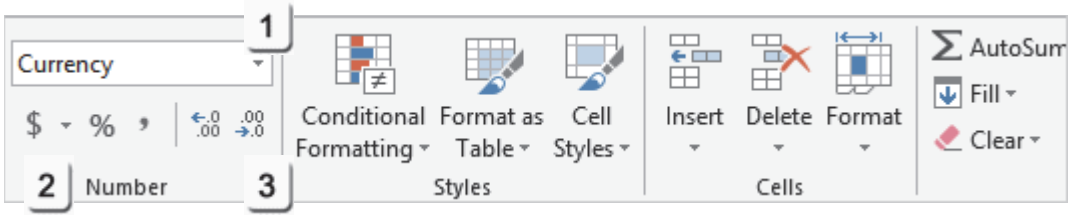
2. Practice

There is no Practice Activity for this lesson.

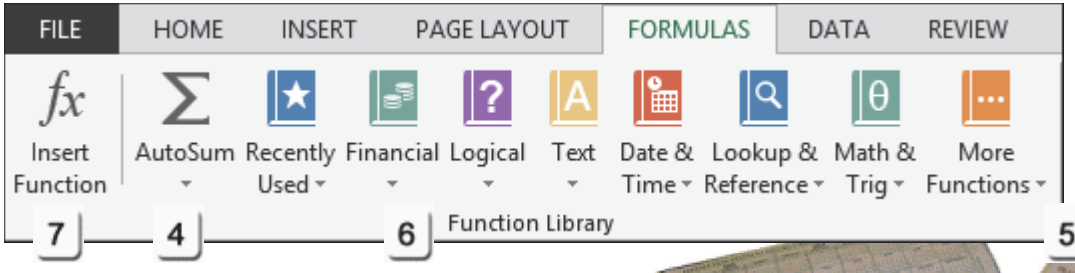
3. Assessment

Review the Test Yourself questions on page 102

Home



Formulas



Menu Maps

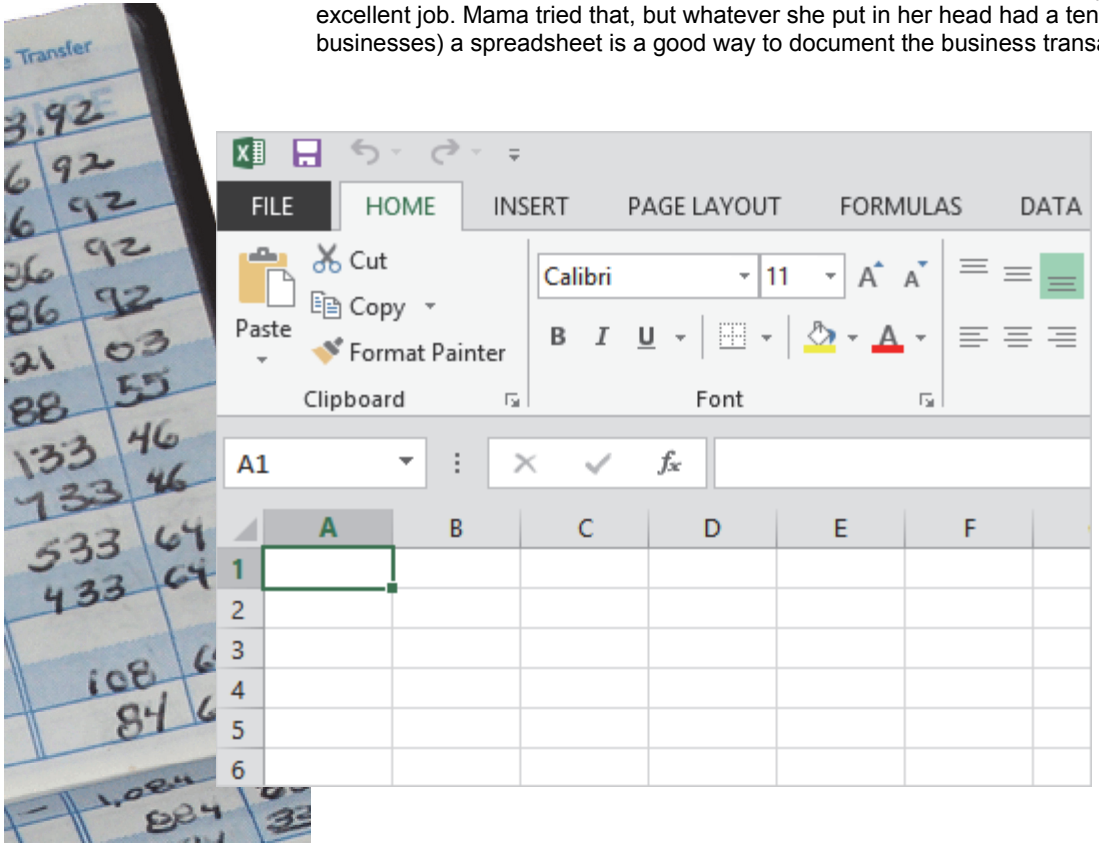
This lesson shows the **Home** and **Formulas** Ribbons.

1. Home ->Number, page 82
2. Home ->Number->Accounting, page 86
3. Home ->Number->Decrease Decimal, page 87
4. Formulas->Function Library-> AutoSum, page 89
5. Formulas->Function Library-> More Functions, page 95
6. Formulas->Function Library->Logical, page 97
7. Formulas->Function Library->Insert Function, page 100



A Question of Balance

An important function of any business is bookkeeping. Somebody has to write down the checks and the deposits that were made. The man in the corner store next to Mama's computer lab never writes anything down: he keeps it all in his head and does an excellent job. Mama tried that, but whatever she put in her head had a tendency to leak. So, for the Computer Mama (and most businesses) a spreadsheet is a good way to document the business transactions. Let's start with a check book.



Go ahead—**Start Microsoft Excel**.
When the Welcome screen appears, open a new, blank workbook, please.

What do you see from the top of the screen? Is there a **Home** Ribbon? And the **Insert**, **Page Layout, Formulas, Data. Review and View** Ribbons as well? Yes. If your screen looks similar to the example on this page, then you are ready to get started.



Create a General Ledger

1. Try This: Enter the Labels
Let's begin by putting in the labels for a checkbook ledger. Enter the following:
In Cell A1: Check Number
In Cell B1: Date
In Cell C1: Description
In Cell D1: Check
In Cell E1: Deposit
In Cell F1: Balance

Select Row 1 and make the labels bold.
Go to **Home -> Font->Bold.**

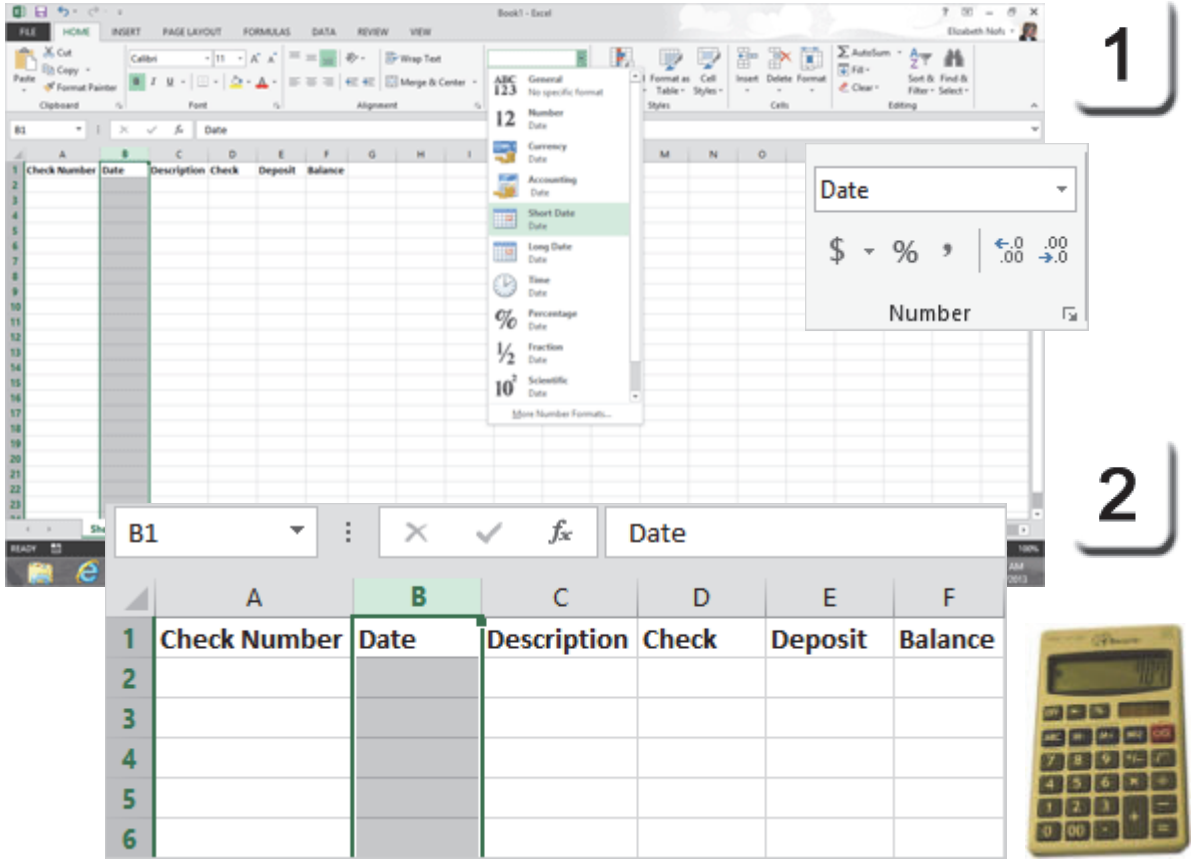
2. Try This, Too: Format the Numbers
Select Column B.
Go to **Home** ->**Number.**
Click on **Short Date.**

Select Columns D, E and F,
Go to **Home ->Number->Number Format.**
Click on **Currency.**

Resize the Columns to fit the data.

Keep going...

Home ->Number->Number Format



Working With a Ledger

3. Try This: Enter some sample data

Select Cell F2 and type 500 for the Opening Balance. Since Column F was formatted for currency, Excel will add the dollar sign and decimals. Say you bought some office supplies, a phone, and paid the electric company a deposit to start the service.
Now, you are officially open for business!

Starting with Cell A3 enter the data:

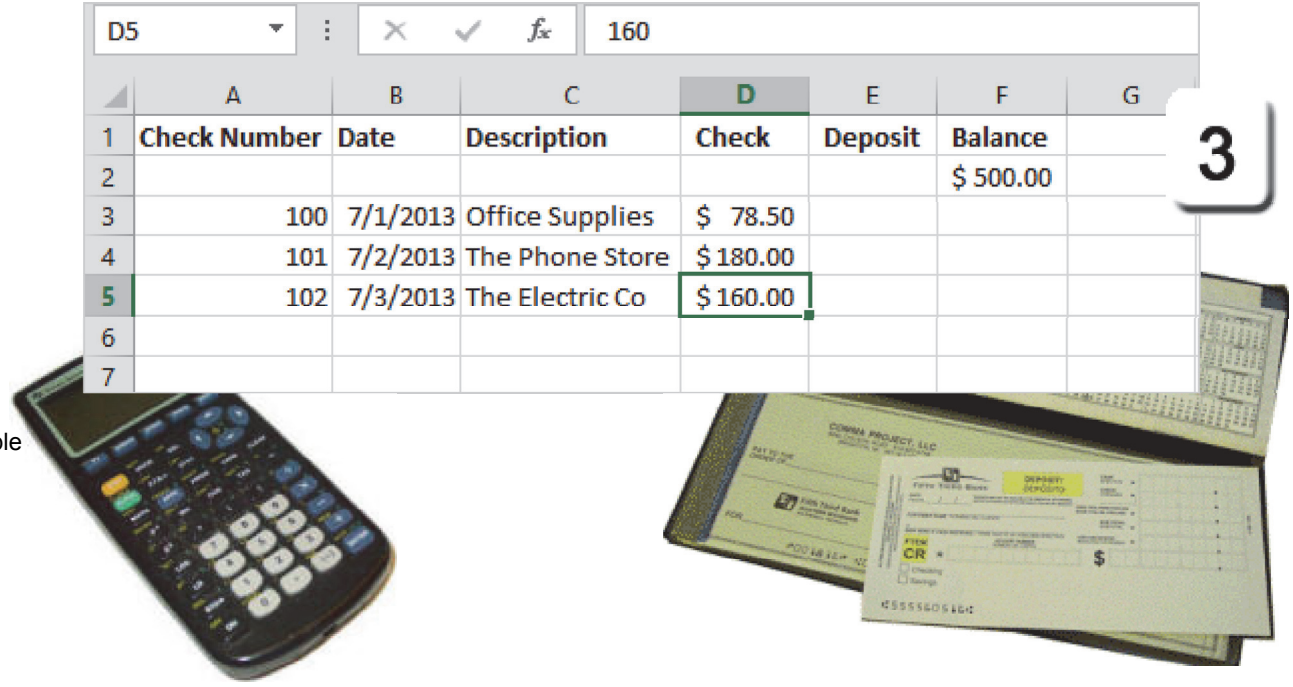
In Cell A3: 100
Description: Office Supplies
Check: $78.50

In Cell A4: 101
Description: The Phone Store
Check: $180.00

In Cell A5: 102
Description: The Electric Co
Check: $160.00

You can use today's date in the sample check book.

Keep going...



Calculate the Balance

Let's visualize how the equation works. In real words, the balance is whatever you had in the bank, minus any checks you wrote, plus any deposits.

4. Try This: Enter the Equation
Select Cell F3 and type in =. The equals sign is on the top of the keyboard to the right of the row of numbers. All equations begin with "=."

Our calculation is =F2-D3+E3.

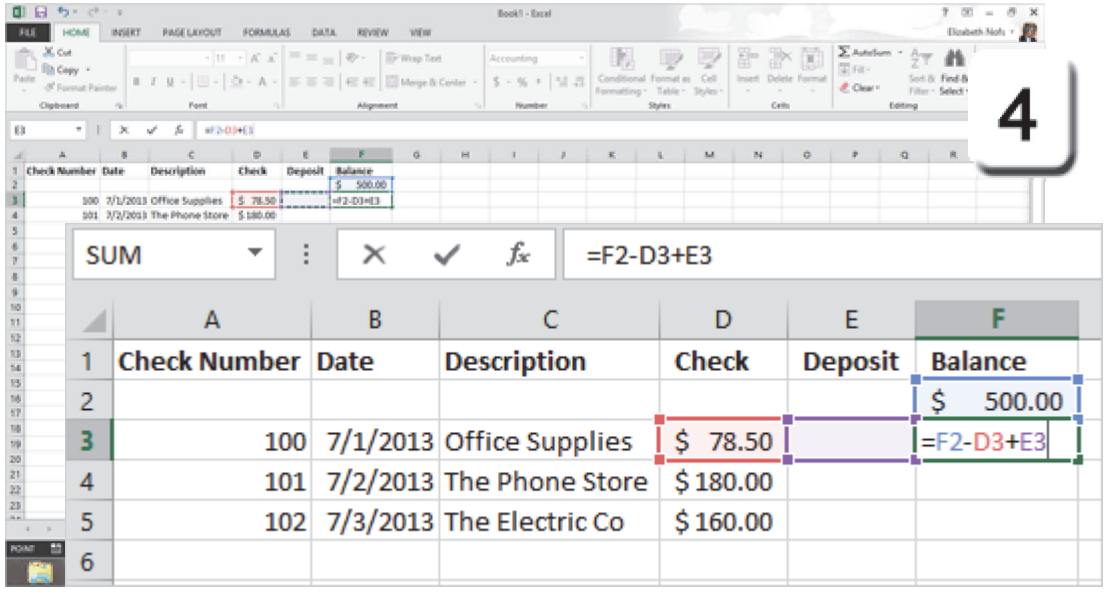
When you hit the Enter or Tab key on your keyboard, Excel will add it all up. Did you get $421.50?

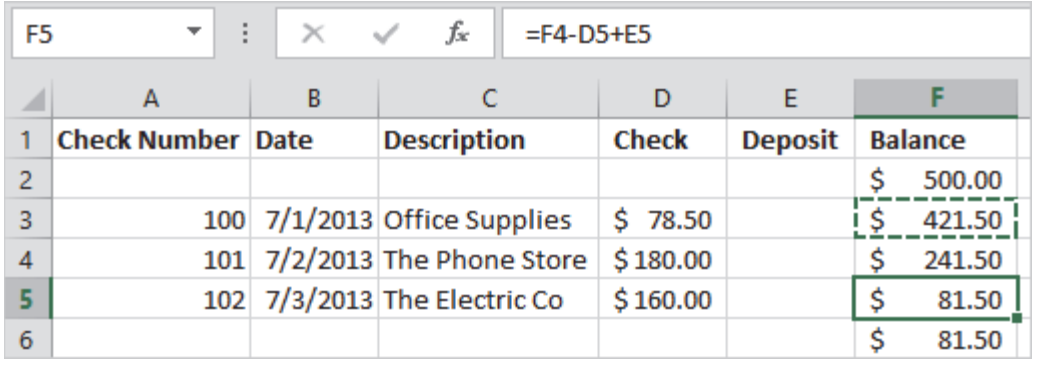
Try it again on Cell F4.
The equation would be: =F3-D4+E4.
The answer should be $241.50.

Select Cell F4.
Copy and Paste the formula down to Row 10

What Did You See? Did you notice that the formula changed? Cell F5 now says =F4-D5+E5. This is an example of **Relative references**.

Keep going...





Proof Your Work

Well, it all adds up, but is it right? Test it.
Enter a date in Cell B6.
Enter a Description in Cell C6: Deposit.
Enter $500.00 in Cell E6.
Is the balance $581.50?

5. Try it: Audit the Equation

Double click Cell F6.

What Do You See? Each cell referenced in the equation is highlighted in color.

6. Name the Spreadsheet

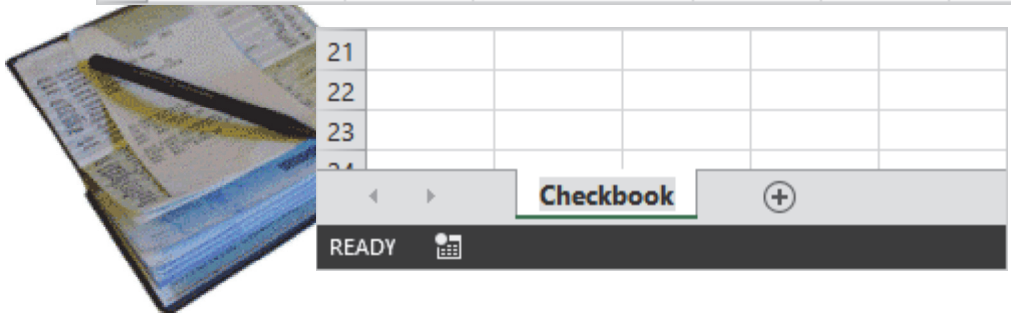
Double click the tab at the bottom of the spreadsheet, Sheet1.
Type: Checkbook.

OK, step-by-step, that's how to make a simple checkbook.

	A	B	C	D	E	F
1	Check Number	Date	Description	Check	Deposit	Balance
2						$ 500.00
3	100	7/1/2013	Office Supplies	$ 78.50		$ 421.50
4	101	7/2/2013	The Phone Store	$ 180.00		$ 241.50
5	102	7/3/2013	The Electric Co	$ 160.00		$ 81.50
6		7/6/2013	Deposit		$ 500.00	$ 581.50
7						$ 581.50

5

	A	B	C	D	E	F
1	Check Number	Date	Description	Check	Deposit	Balance
2						$ 500.00
3	100	7/1/2013	Office Supplies	$ 78.50		$ 421.50
4	101	7/2/2013	The Phone Store	$ 180.00		$ 241.50
5	102	7/3/2013	The Electric Co	$ 160.00		$ 81.50
6		7/6/2013	Deposit		$ 500.00	=F5-D6+E6
7						$ 581.50



6

Working With Equations

Here is a new challenge: How do you compare a range of numbers? What tools are available in Microsoft Excel to analyze your employee salaries?

Before You Begin: Go to the tab at the bottom (Checkbook) and click the + sign to add a blank spreadsheet, Sheet2.

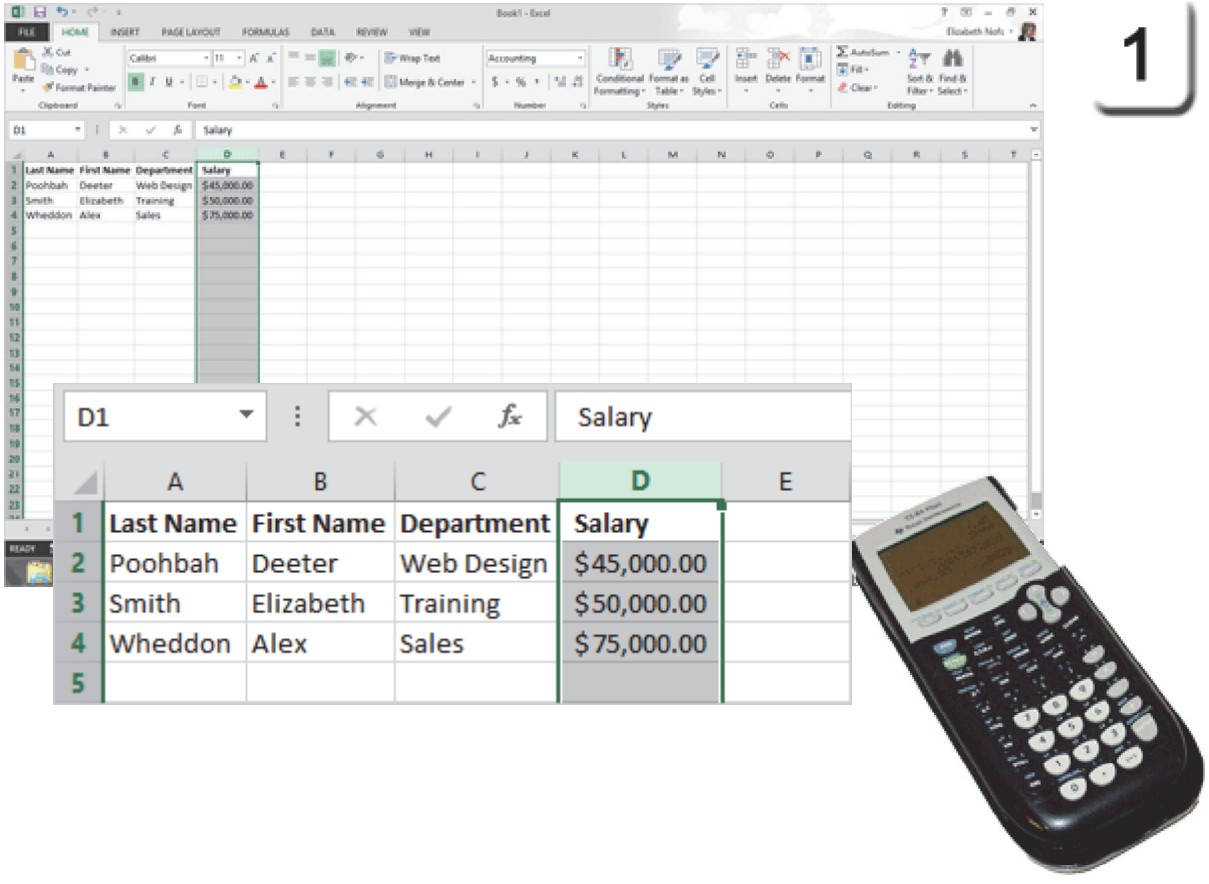
1. Try it: Enter the Labels
Click on a blank spreadsheet
Add the following labels:
Cell A1: Last Name
Cell B1: First Name
Cell C1: Department
Cell D1: Salary

Please add three sample employees and enter salaries from $45,000 to $75,000.

Select Column D and format that column for Accounting. ($)

Keep going...

Home ->Number ->Accounting

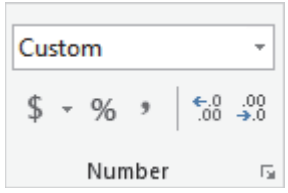


Format the Decimals

How do you format the number of **decimal** places you see?

2. Try it: Practice with Decimals
Select: Cell D2.
Enter a new salary: $45,000.68

Go to **Home -> Number**.
Click on **Decrease Decimal**.



What Do You See? Watch the numbers in Cell D2 as you click on Decrease or Increase Decimal. Did the number Round Up?

Keep going...

Home ->Number->Decrease Decimal

D2 | 45000.68

	A	B	C	D	E
1	Last Name	First Name	Department	Salary	
2	Poohbah	Deeter	Web Design	$45,000.68	
3	Smith	Elizabeth	Training	$50,000.00	
4	Wheddon	Alex	Sales	$75,000.00	
5					

D2 | 45000.68

	A	B	C	D	E
1	Last Name	First Name	Department	Salary	
2	Poohbah	Deeter	Web Design	$ 45,001	
3	Smith	Elizabeth	Training	$50,000.00	
4	Wheddon	Alex	Sales	$75,000.00	
5					



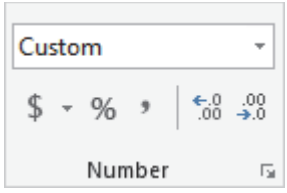
Memo to self: Changing the decimals is like making the number Bold or Red. This is decimal *formatting*. The REAL value of the number is displayed in the Formula bar.



Exam 77-420 Microsoft Excel 2013
2. Create Cells and Ranges
2.2 Format Cells and Ranges: Apply Number Formats (Decimals)

Pick Your Places

3. Try This: Practice with Decimals
Select Column D.
Go to **Home -> Number.**
Click on **Format Cells.**
Note: This option can be found in the bottom right corner of the Number group. It looks like a small, blue arrow.

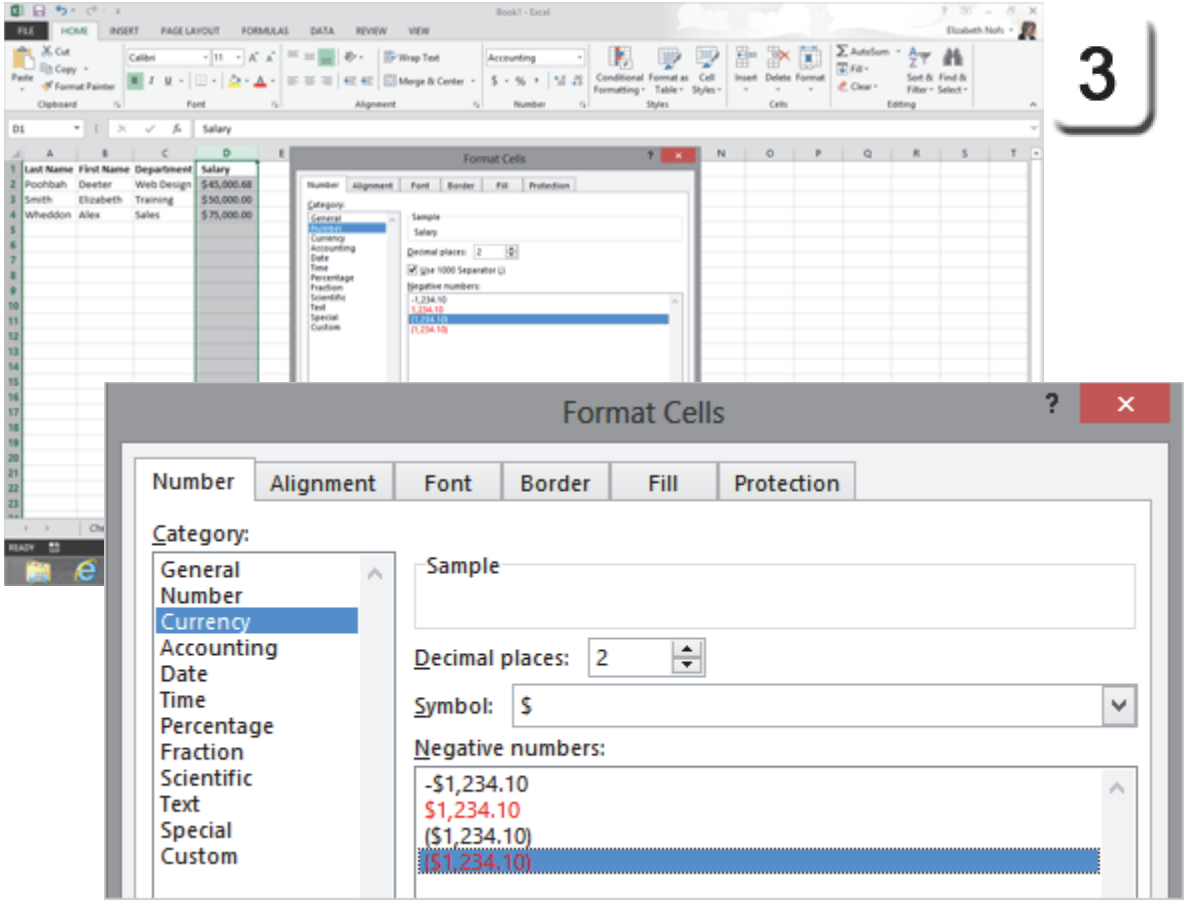


Format the Number
Category: Currency
Decimal Places: 2
Symbol: ($) US Dollars
Negative Numbers: ($1,234.10)

Red ink is bad in anyone's bookkeeping, but use the negative sign or parentheses in case you need to print in black and white.

Click **OK** to Close the Format Cells window.

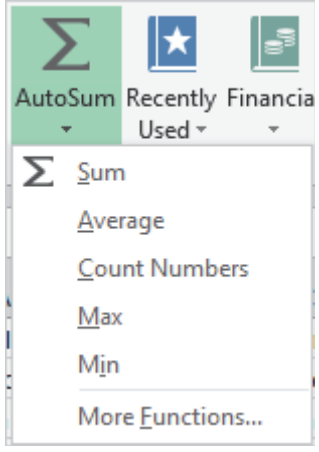
Home ->Number



Calculate the SUM

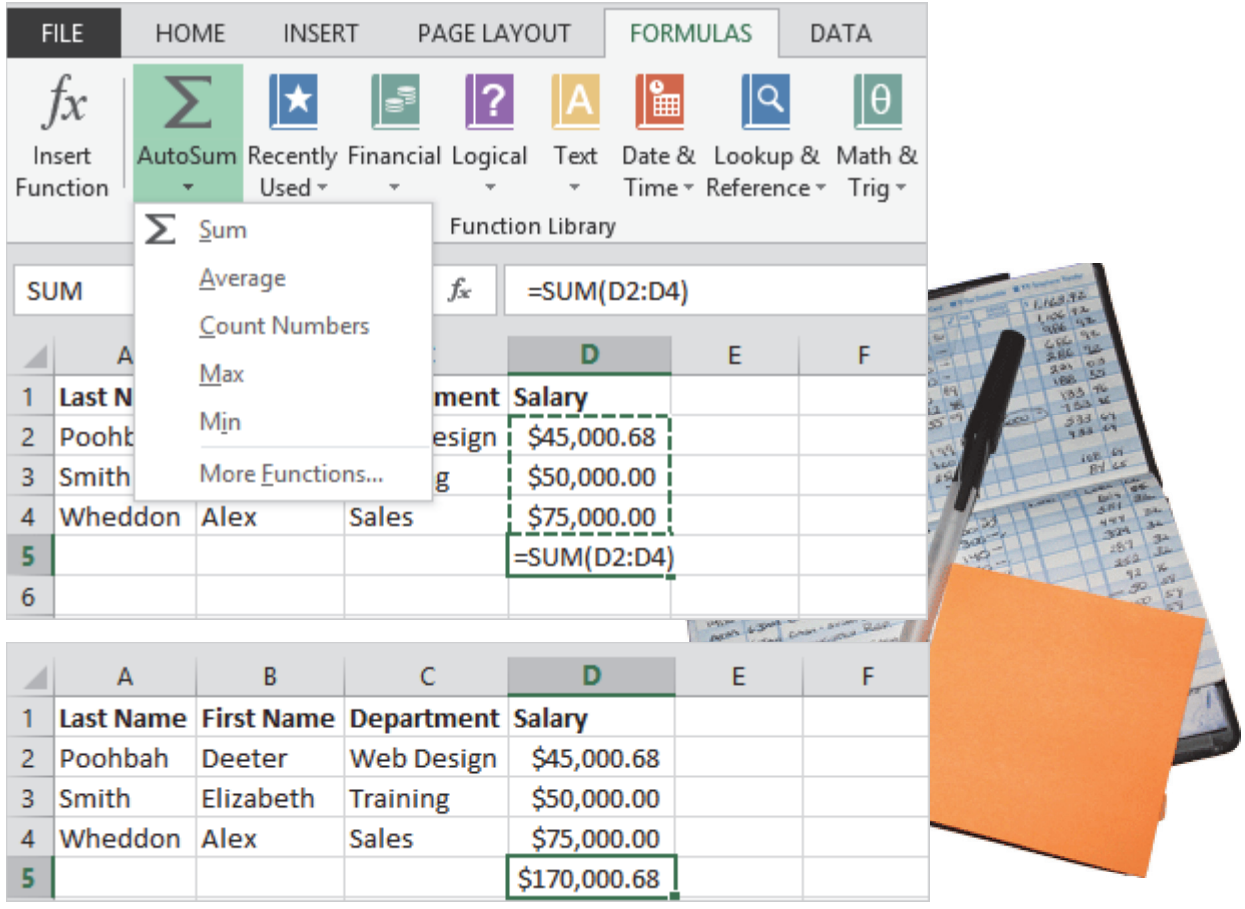
The next examples demonstrate the **AutoSum** Functions.

Try it: AutoSum the Salaries
Select Cell D5.
Go to **Formulas-> Function Library.**
Go to **AutoSum->Sum**.



What Do You See? The equation in Cell D5 is =SUM(D2:D4)

Formulas->Function Library->AutoSum ->Sum

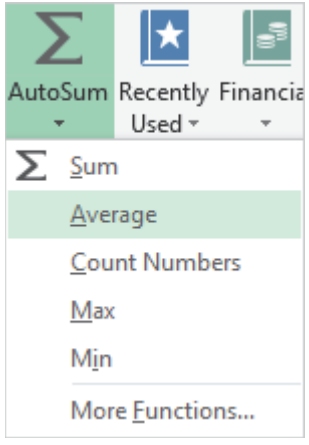


Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions: Demonstrate How To Apply the SUM Function

What is the Average?

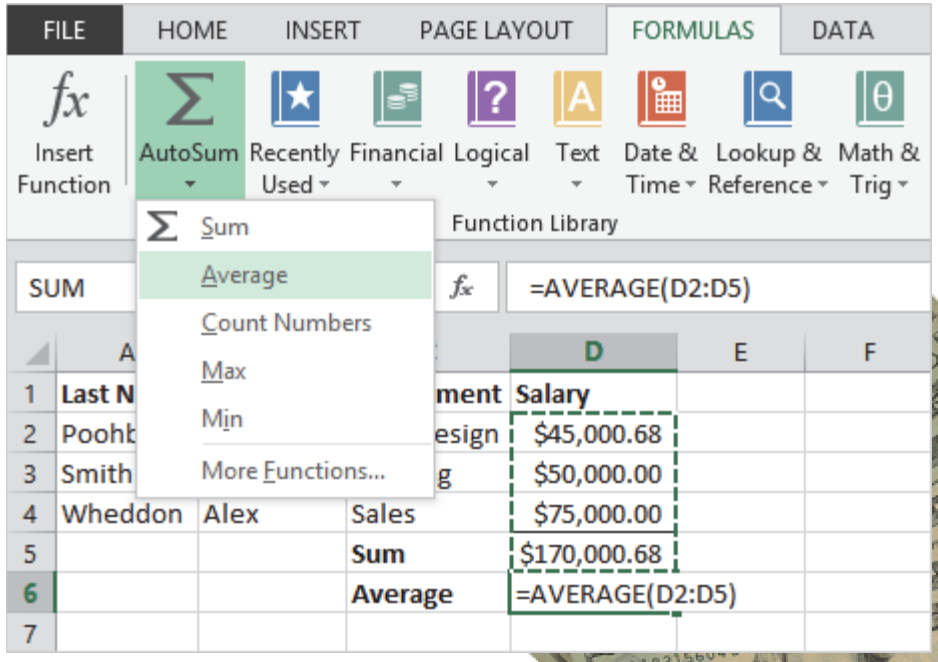
To calculate the **Average**, you need some business math.

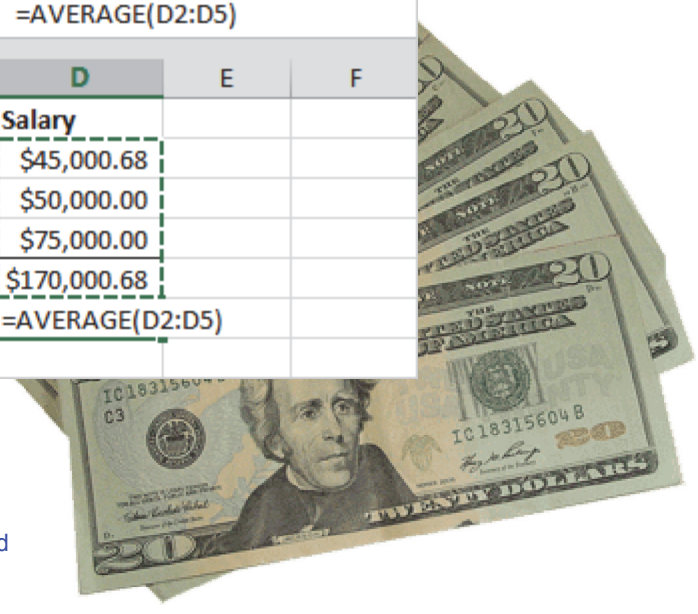
1. Try it: Calculate the Average
Select Cell D6.
Go to **Formulas ->Function Library.**
Go to **AutoSum.**
Click on **Average**.



What Do You See? The equation in Cell D6 is =AVERAGE(D2:D5)...wait!

Formulas->Function Library->AutoSum ->Average





Memo to Self: Proof the formulas. The example on this page is wrong!

Another Memo: As you add a new function, add a Label in the cell to the left of it (in Column C) so you know which function you are using.

Calculate the Average

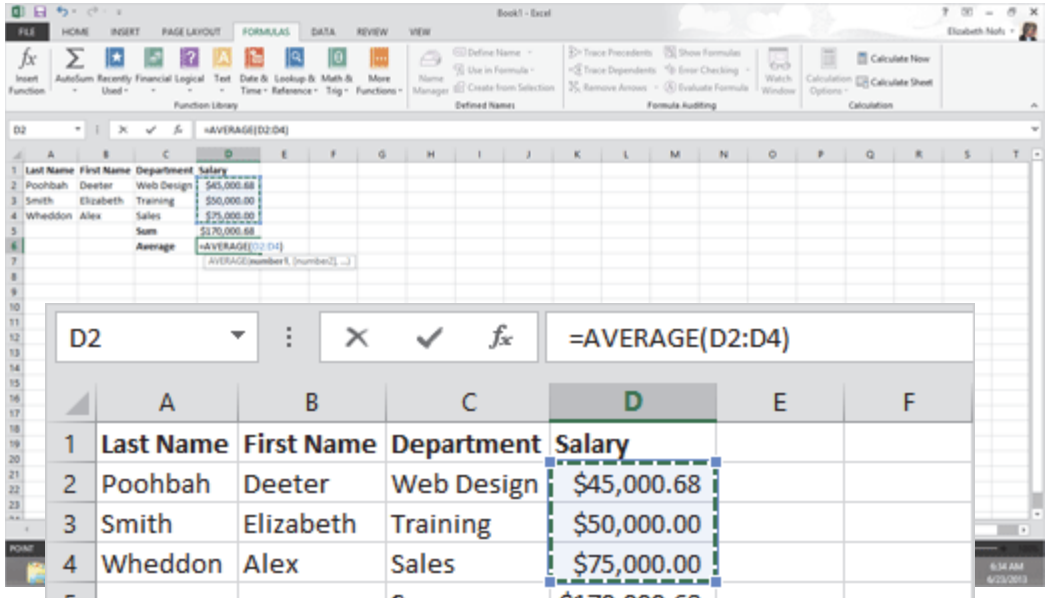
The built-in functions in Microsoft Excel look for a range of cells. Sometimes, the suggested range is NOT correct.

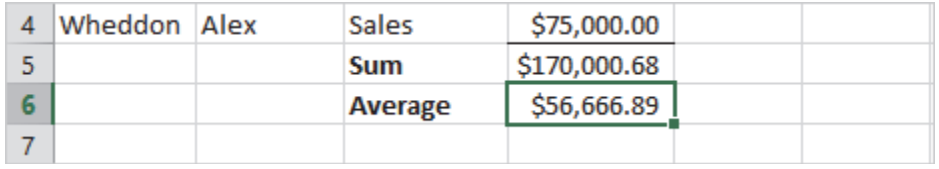
In this example, the Average equation added in the salaries, AND the SUM of the salaries. This makes a **Circular Reference**, it adds itself again and again and again.

2. Try it: Select the Right Range
Select Cell D6.
Go to **Formulas-> Function Library.**
Go to **AutoSum**.
Click on **Average**.
Use your cursor to highlight (select) Cells D2:D4.

3. What Do You See Now?
The correct equation in Cell D6 is:
=AVERAGE(D2:D4)

Formulas->Function Library->AutoSum ->Average





Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions: Demonstrate How To Apply the Average Function

What Is The Count?

The **Count Numbers** function uses the same steps as figuring the Average.

1. Try it: Count the values
Select Cell D7
Go to **Formulas-> Function Library.**
Go to **AutoSum.**
Click on **Count Numbers.**

Excel wrote the following equation:
=COUNT(D2:D6)
This is the wrong range.

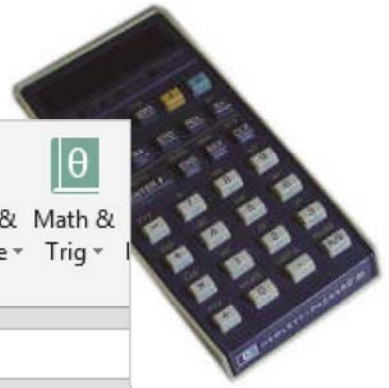
Use your cursor to highlight (select) Cells D2:D4.

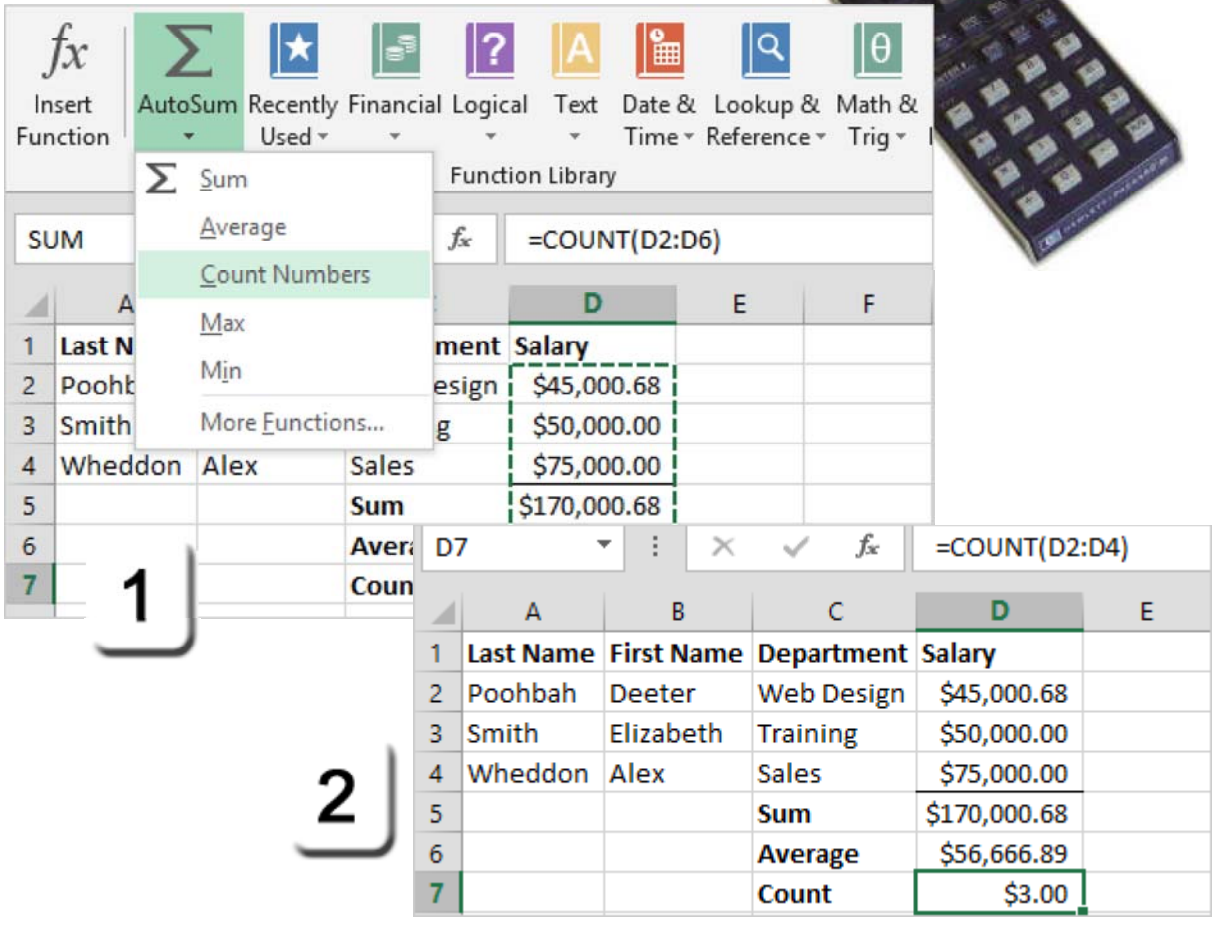
2. What Do You See Now?
The correct equation is:
=COUNT(D2:D4)

What Else Do You See? The **Count** is still formatted as **Currency**.

OK, Do This: Format the Number
Select Cell D7.
Go to **Home->Number->General**.

Formulas->Function Library->AutoSum ->Count Numbers





The MAX Function

The **MAX** Function finds the greatest value in a range. In this example, the Max will display the highest salary.

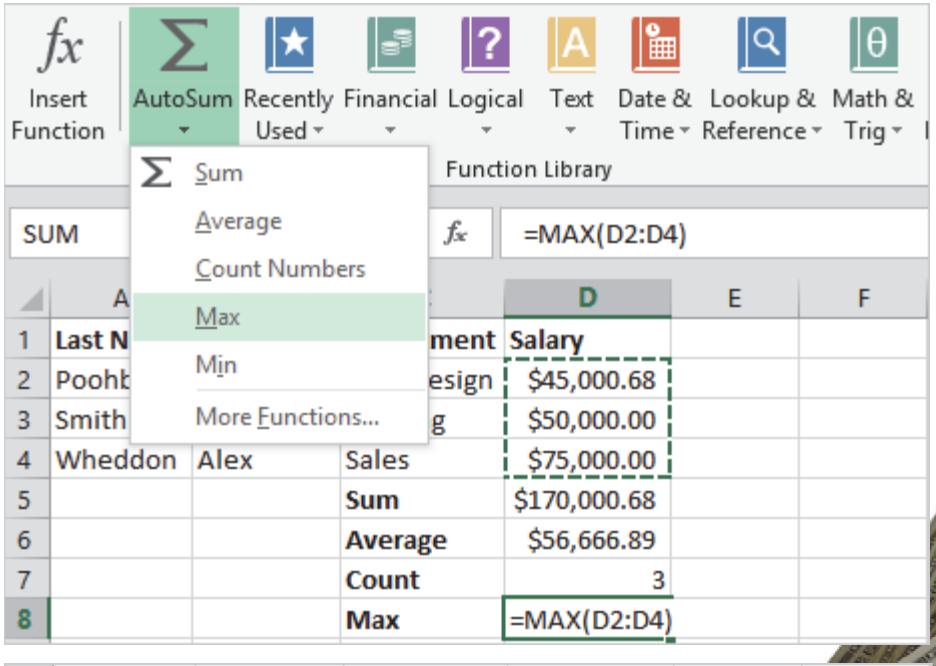
1. Try It: Use the MAX Function
Select Cell D8.
Go to **Formulas ->Function Library**
Go to **AutoSum.**
Click on **Max**.

Excel wrote the following equation:
=MAX(D2:D7)
This is the wrong range.

Use your cursor to highlight (select) Cells D2:D4.

2. What Do You See Now?
The correct equation is:
=MAX(D2:D4)

Formulas->Function Library->AutoSum ->Max



The MIN Function

The **MIN** Function finds the least value in a range. In this example, the Min will determine the smallest salary.

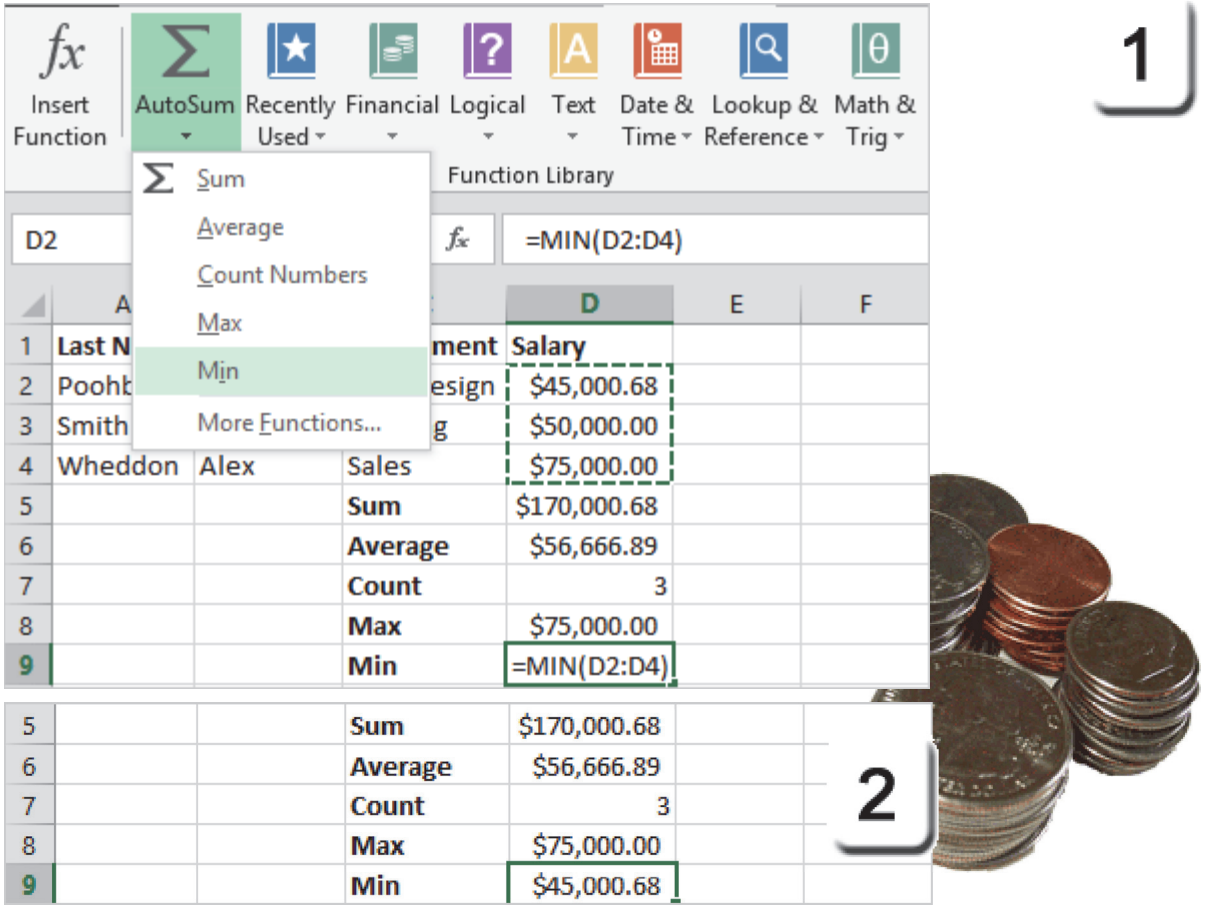
1. Try It: Use the MIN Function
Select Cell D9**.**
Go to **Formulas ->Function Library.**
Go to **AutoSum.**
Click on **Min.**

Excel wrote the following equation:
=MIN(D2:D8)
This is the wrong range.

Use your cursor to highlight (select) Cells D2:D4.

2. What Do You See Now?
The correct equation is:
=MIN(D2:D4)

Formulas->Function Library->AutoSum ->MIN



The CountA Function

The **Count** Function counts numbers.

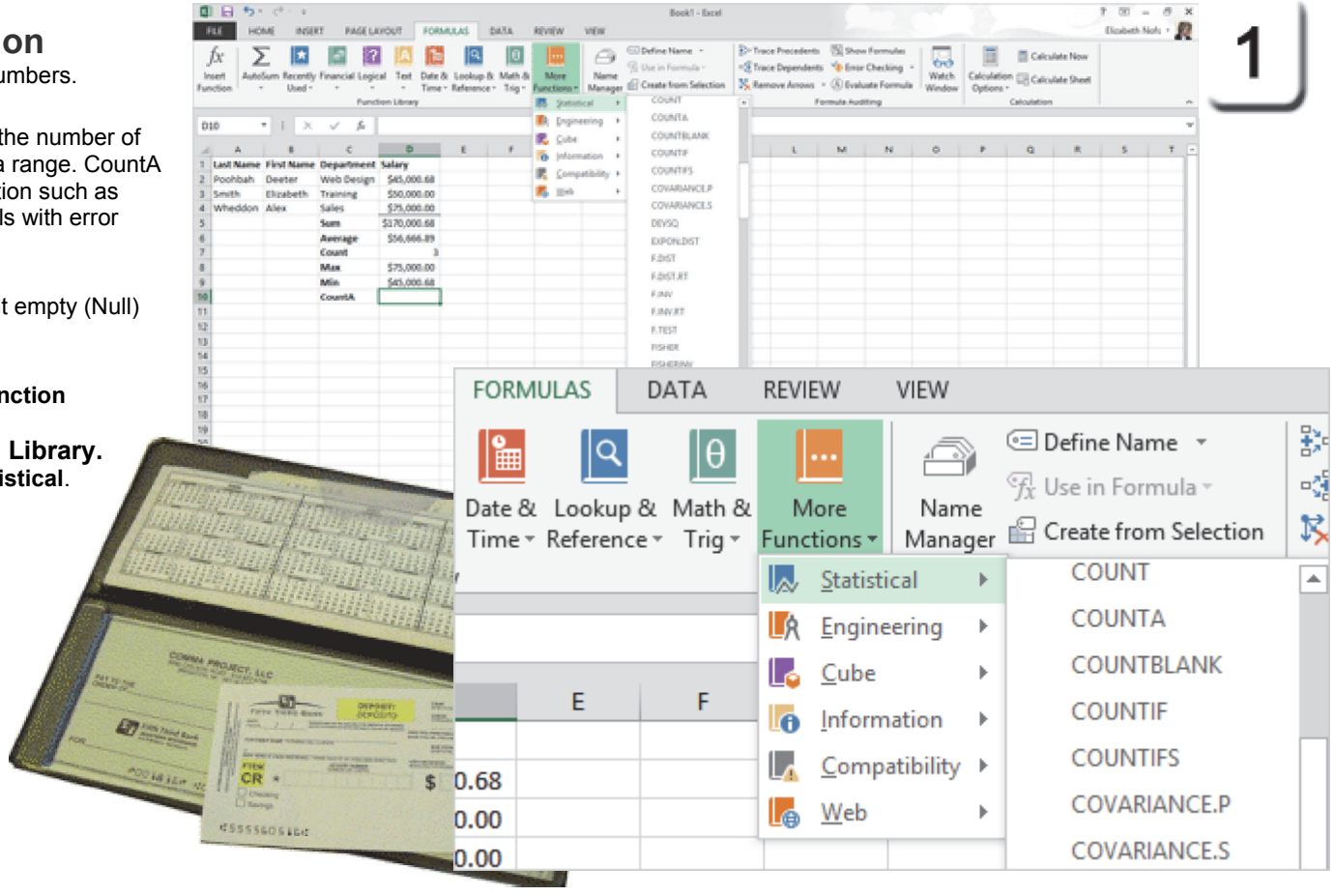
The **CountA** Function counts the number of cells, or variables, that are in a range. CountA can count any type of information such as names (text), values, even cells with error messages in them.

Neither Count or CountA count empty (Null) cells.

1. Try It: Use the CountA Function
Select Cell D10.
Go to **Formulas -> Function Library.**
Go to **More Functions**-> **Statistical**.
Click on **COUNTA**.

Keep going...

Formulas->Function Library->More Functions ->Statistical-> COUNTA



Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions: Demonstrate How To Apply the COUNTA Function

Use CountA

What Do You See? You can use the **Function Arguments** form to "fill in the blanks" and write your equation. Just as the SUM, AVERAGE and COUNT Functions use a range of cells, you need to select the data for this equation, too.

2. Try it: Edit the Function Arguments
Your cursor should be in Value1.

Select Value1: Reach over to the spreadsheet that is behind the Function Arguments form and highlight (select) Cells A2:A4.

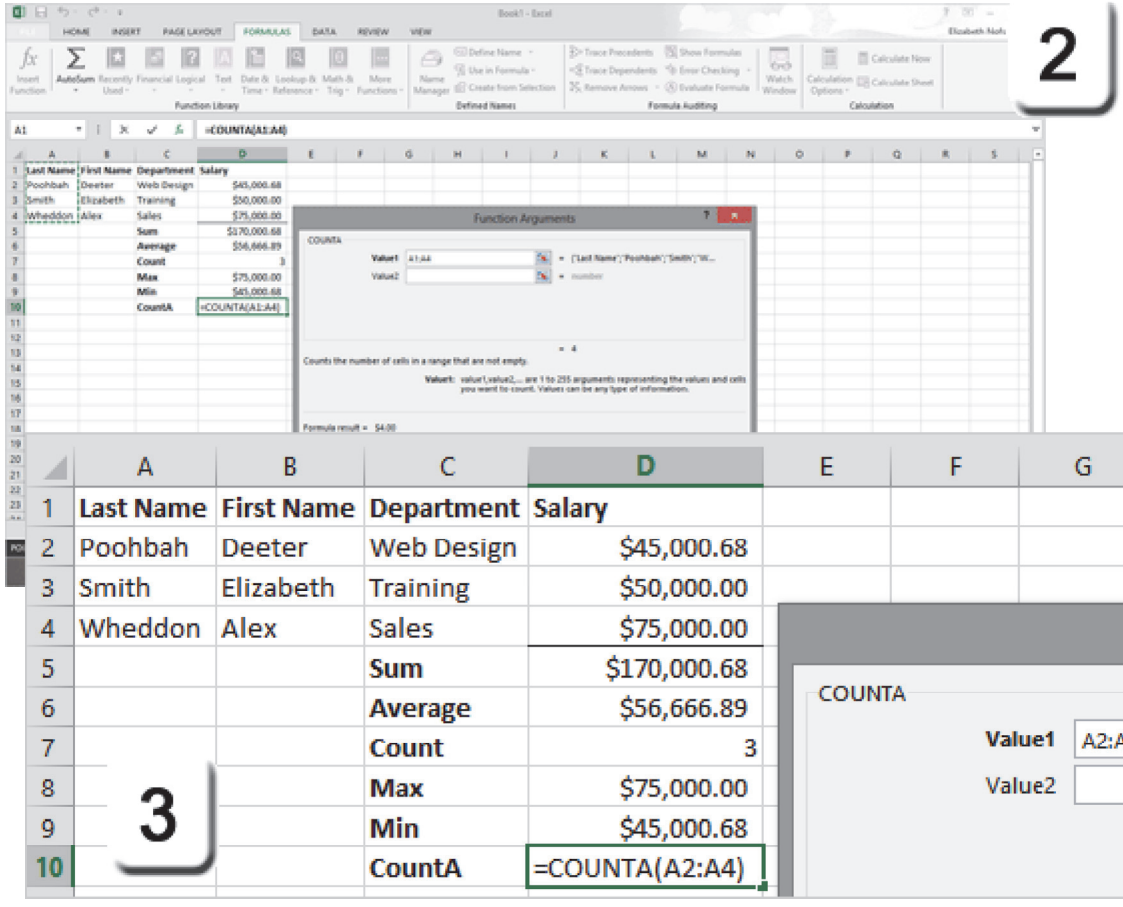
Click **OK** to close the Function Arguments.

3. What Do You See Now?
The correct equation is:
=COUNTA(A2:A4)

What Else Do You See? When you click ENTER, there should be a count of 3, for the 3 last names in our data.

OK, Do This: Format the Number
Select Cell D10.
Go to **Home->Number->General**.

Formulas->Function Library->More Functions ->Statistical->CountA



	A	B	C	D
1	Last Name	First Name	Department	Salary
2	Poohbah	Deeter	Web Design	$45,000.68
3	Smith	Elizabeth	Training	$50,000.00
4	Wheddon	Alex	Sales	$75,000.00
5			Sum	$170,000.68
6			Average	$56,666.89
7			Count	3
8			Max	$75,000.00
9			Min	$45,000.68
10			CountA	=COUNTA(A2:A4)

Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions: Demonstrate How To Apply the COUNTA Function

Think Harder

Suppose we wanted to find out which employee salaries are greater than and which are less than the AVERAGE.

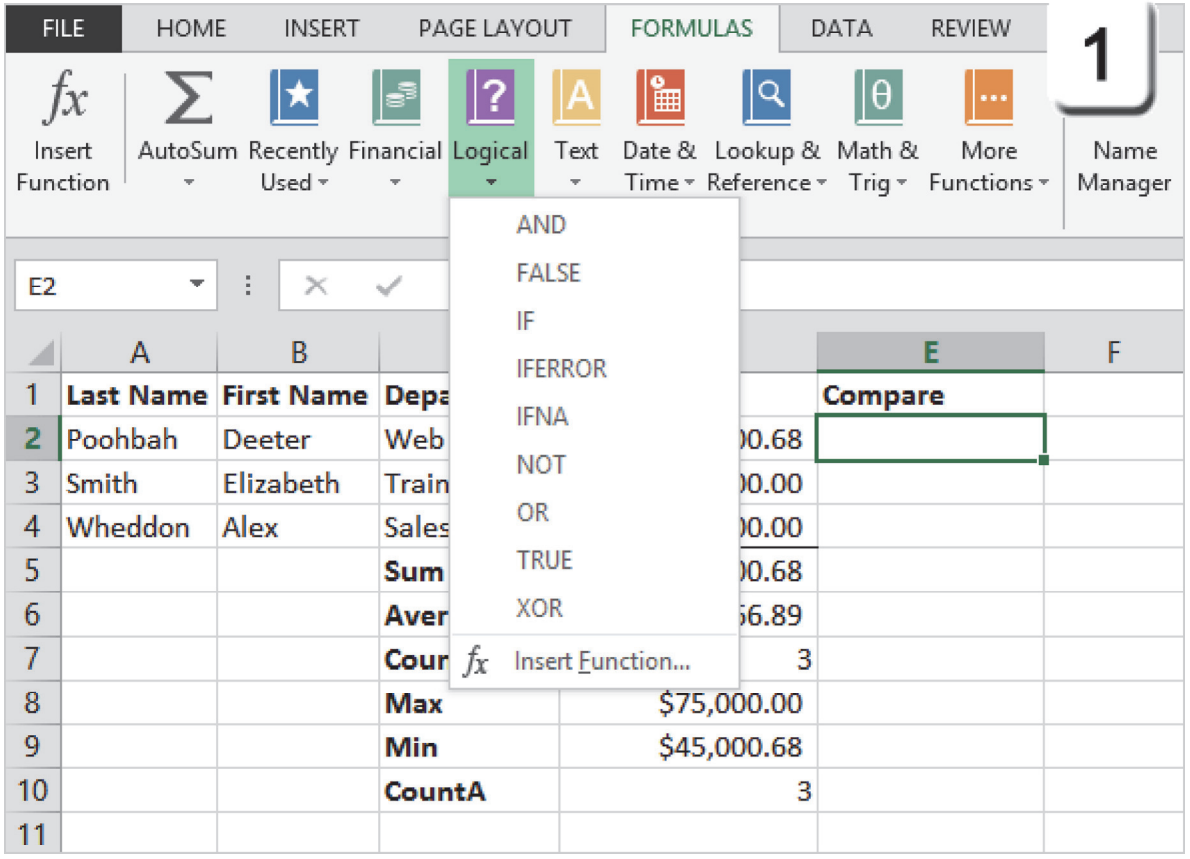
If the salary is greater than the average, let's have Excel say, "Above." If the salary is less than the average, Excel should return with, "Below."

This is a **Conditional** equation. In Excel, we would use the **IF Function**.

1. Try it: Using the Logical Function
Select Cell E1.
Type in the label: Compare.
Select Cell E2.
Go to **Formulas ->Function Library.**
Go to **Logical**.
Select **IF**, the Logical function, from the list of options. Keep going...

What is a Logical Function? A Logical function asks a question, and then determines if your data matches. The answers are usually binary: True or False, Yes or No. The IF function uses a test to compare your data.

Formulas->Function Library->Logical ->IF



Take Two

Formulas->Function Library->Logical ->IF

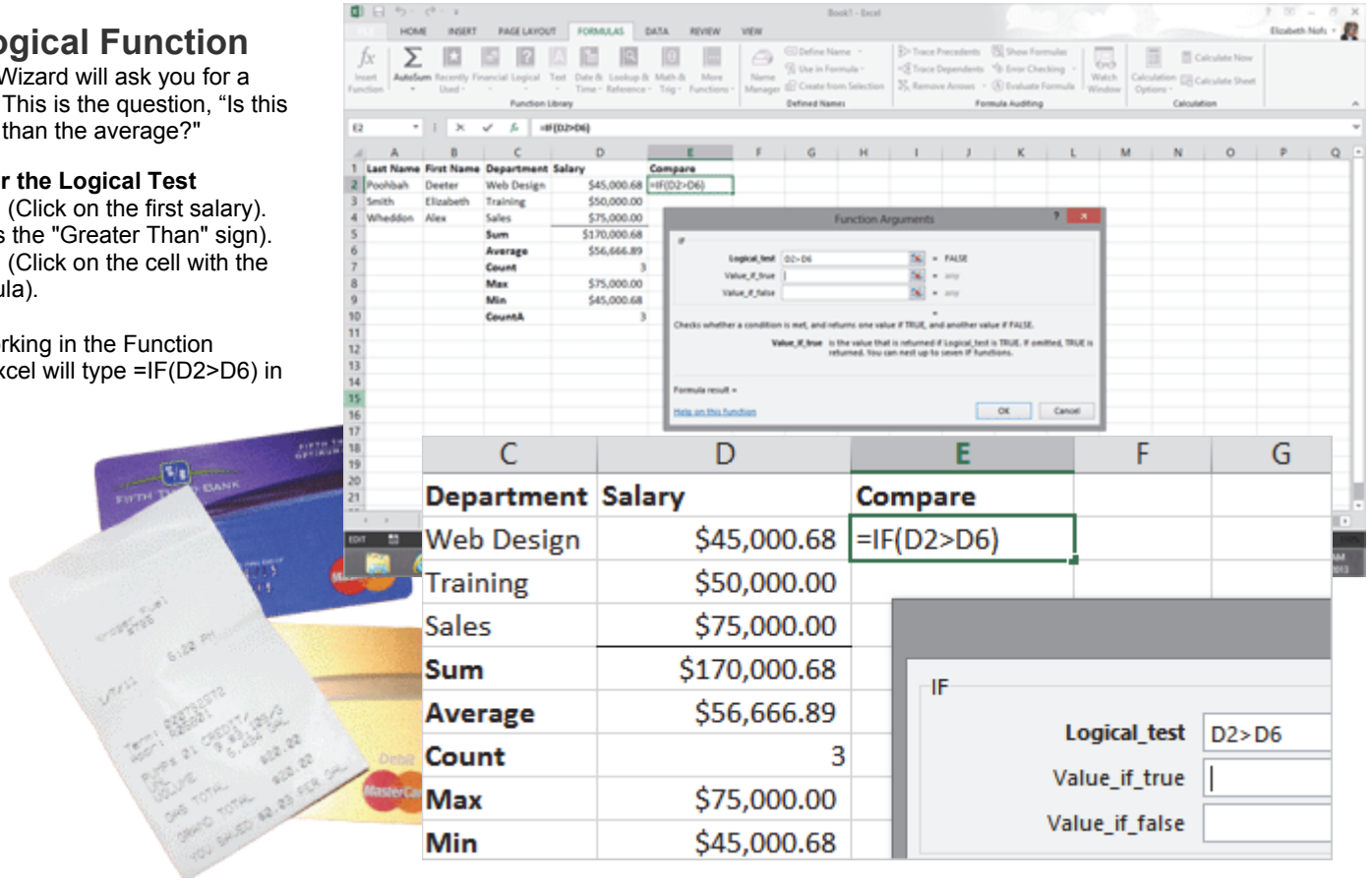
The IF Logical Function

The Function Wizard will ask you for a **Logical Test**. This is the question, “Is this salary greater than the average?"

2. Try it: Enter the Logical Test
Select Cell D2 (Click on the first salary).
Type: > (this is the "Greater Than" sign).
Select Cell D6 (Click on the cell with the Average formula).

As you are working in the Function Arguments, Excel will type =IF(D2>D6) in Cell E2.

Keep going...



Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.3 Apply Conditional Logic in Functions: Apply Conditional Logic in Functions (IF)

The IF Function

3. Try it: Enter the Function Arguments
Type: Above for the true values.
Type: Below for the false values.
Excel will put the quote marks (" ") around the text that you type.

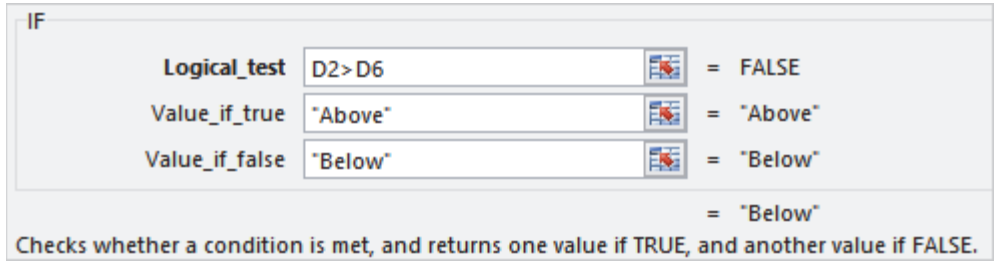
Click OK to finish the formula.

The equation, as it is written, uses **relative references**. If you copy and paste this equation, you may not get the results that you wanted**.**

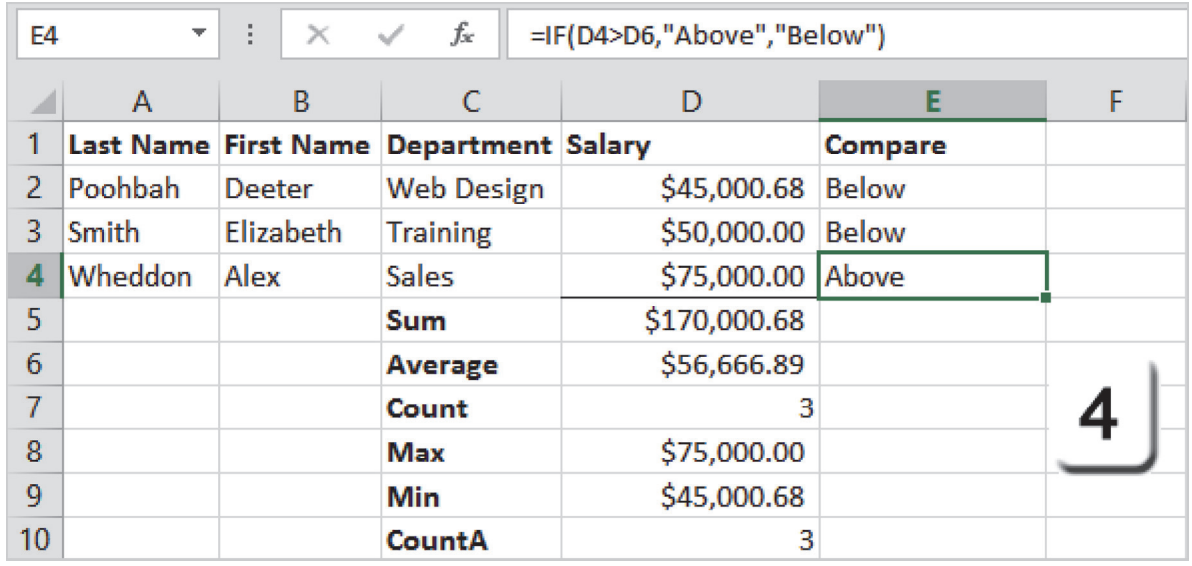
4. Try This: Practice the IF Formula
For practice, use the **Formula tools** to create the IF Logical equation in Cell E3 and Cell E4.

Very good. Keep going...

Formulas->Function Library->Logical ->IF



3



	A	B	C	D	E	F
1	**Last Name**	**First Name**	**Department**	**Salary**	**Compare**	
2	Poohbah	Deeter	Web Design	$45,000.68	Below	
3	Smith	Elizabeth	Training	$50,000.00	Below	
4	Wheddon	Alex	Sales	$75,000.00	Above	
5			**Sum**	$170,000.68		
6			**Average**	$56,666.89		
7			**Count**	3		
8			**Max**	$75,000.00		
9			**Min**	$45,000.68		
10			**CountA**	3		

4

Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.3 Apply Conditional Logic in Functions: Apply Conditional Logic in Functions (IF)

Review: Insert Function

Microsoft Excel has an extensive library of functions. The little books on the Formulas Ribbon are just subsets of the vast collection. Let's review the Functions.

5. Try This: Review the Functions
Select Cell D11.
Go to **Formulas->Function Library**.
Click on **Insert Function**.

What Do You See? Microsoft Excel will display a brief list of the most frequently used functions.

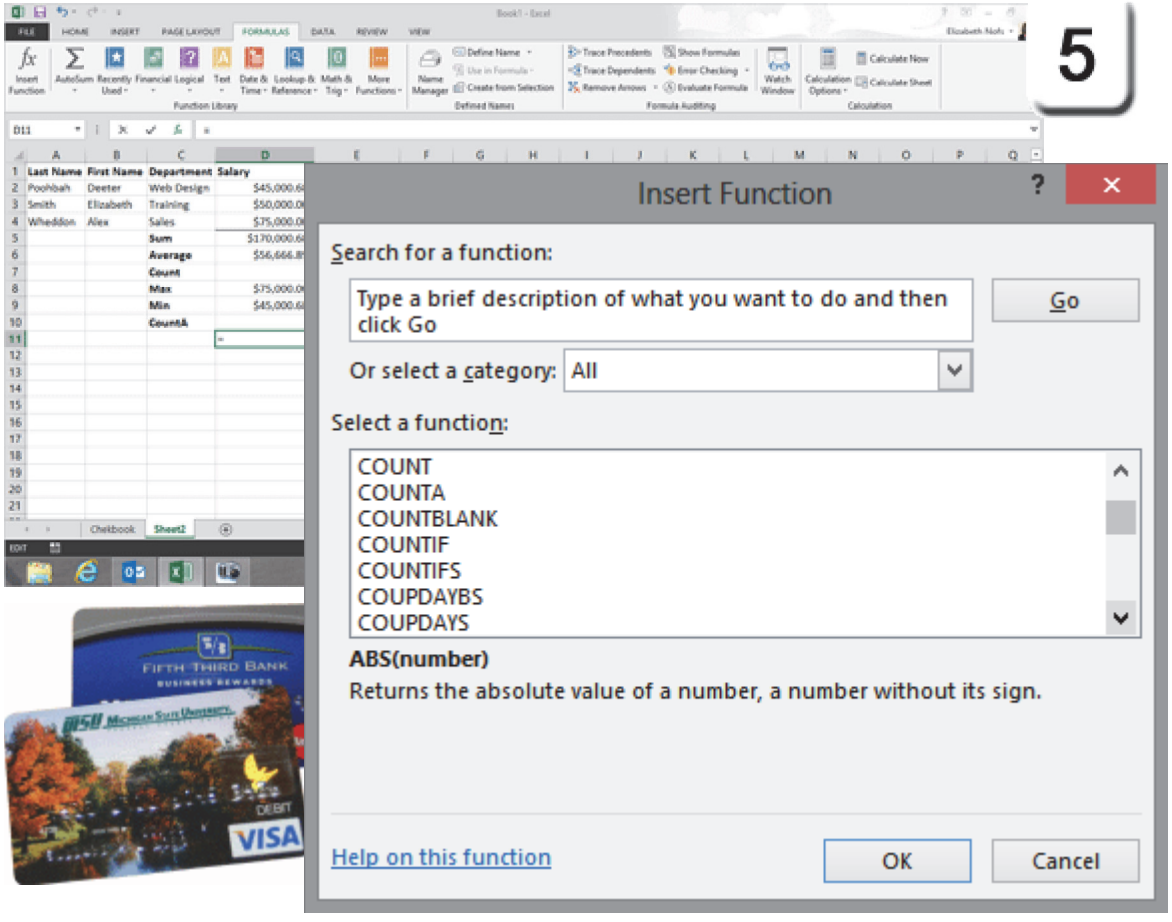
Change the **Category** to All.

It's a long list, isn't it? The Computer Mama finds this impressive...

Click **CANCEL** and return to the spreadsheet.

And Do This: Save the Spreadsheet
Go to **File->Save**.
Browse to your Documents folder.
Enter the Name: Excel Functions EAN, where EAN are your initials.
Click on **Save**.

Formulas->Function Library->Insert Function



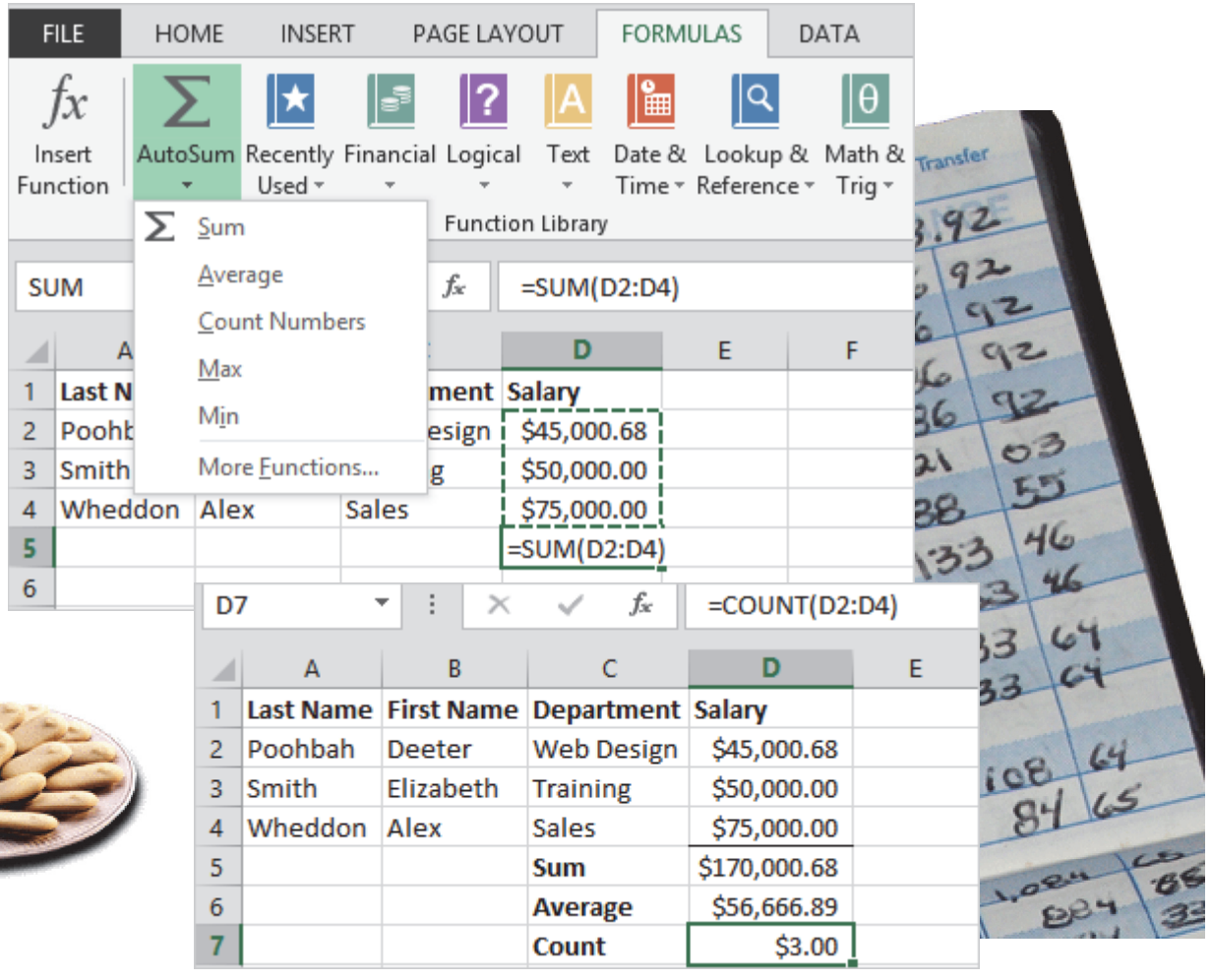
Summary

This lesson created a spreadsheet that balanced a checkbook and another spreadsheet that compared salaries.

This lesson focused on the basic formulas found under AutoSum.

Well, you done good.
You can get the cookie.





Test Yourself

1. You can copy and paste a formula.
a. True
b. False
Tip: Beginning Excel, page 84

2. You can rename sheets in an Excel workbook.
a. True
b. False
Tip: Beginning Excel, page 85

3. Changing the decimal place using the Decrease Decimal command does NOT change the number, only how it is formatted.
a. True
b. False
Tip: Beginning Excel, page. 87

4. Where is the AutoSum command?
(Select all correct answers.)
a. Formulas-> Function Library-> AutoSum
b. Home->Editing-> AutoSum
Tip: Beginning Excel, page 57, 89

5. The Sum and Average commands suggest a range of cells that may or may not be what you want.
a. True
b. False
Tip: Beginning Excel, page 91

6. Which of the following commands are in the AutoSum menu?
(Select all correct answers.)
a. Sum
b. Average
c. Count Numbers
d. Max
e. Min
Tip: Beginning Excel, page 90

7. Which of the following is true?
(Select all correct answers.)
a. COUNTA counts all cells with text or numbers
b. COUNT counts all cells with numbers
c. Neither COUNT or COUNTA counts empty cells
Tip: Beginning Excel, page 95

8. A logical function asks a question, then determines if your data matches.
a. True
b. False
Tip: Beginning Excel, page 97

9. Which is a logical function?
a. COUNTA
b. Average
c. IF
d. Sum
Tip: Beginning Excel, page 97

10. Which of the following is a way to enter a formula?
(Select all correct answers.)
a. Type the formula
b. Insert the formula using the Formula Ribbon
c. Copy and paste the formula
Tip: Beginning Excel, page 84, 89



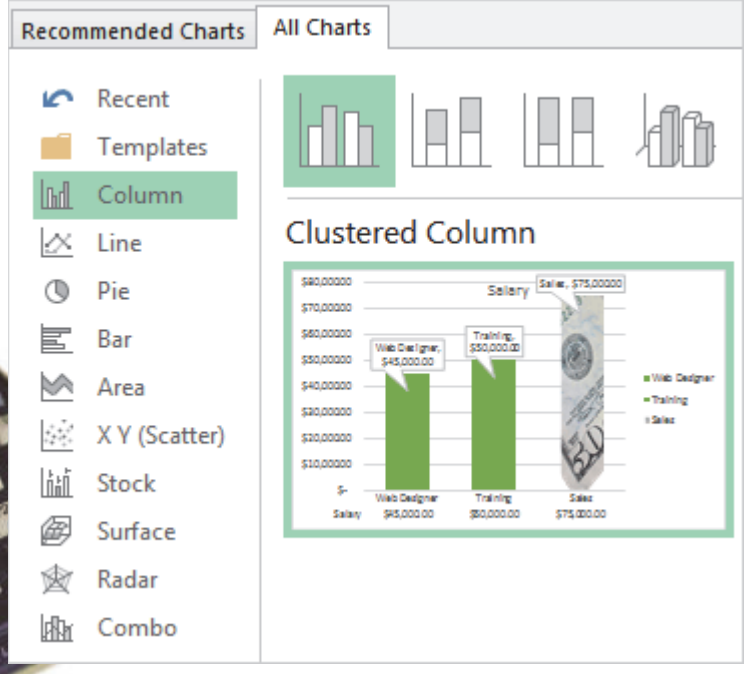
Charts and Chart Tools

Beginning Excel Objectives

In this lesson, you will learn how to:

1. Present data visually in a Chart
2. Create and format a Pie Chart
3. Edit the Chart Layout
4. Design and edit a Column Chart
5. Format the Shape Styles and Shape Fill







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Lesson 5: Charts and Chart Tools

1. Readings

Read Lesson 5 in the Beginning Excel guide, page 103-139.

Project

A sample spreadsheet that demonstrates the Chart Tools: Design Layout and Format.

Downloads

Charlotte's Prices.xlsx (Completed)
Beginning Excel Charts-2013.xlsx
Money8.jpg
Money15.jpg

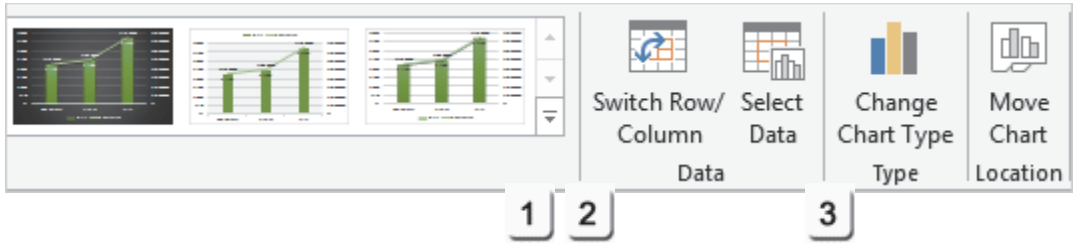
2. Practice

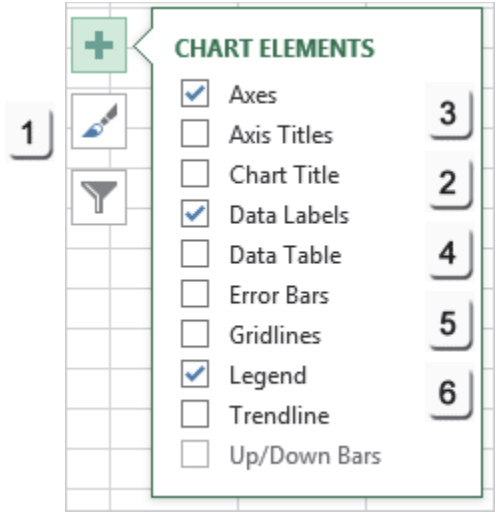
There is no Practice Activity.

3. Assessment

Review the Test questions on page 140.

Chart Tools->Design





Menu Maps

This lesson show options on the **Chart Elements**

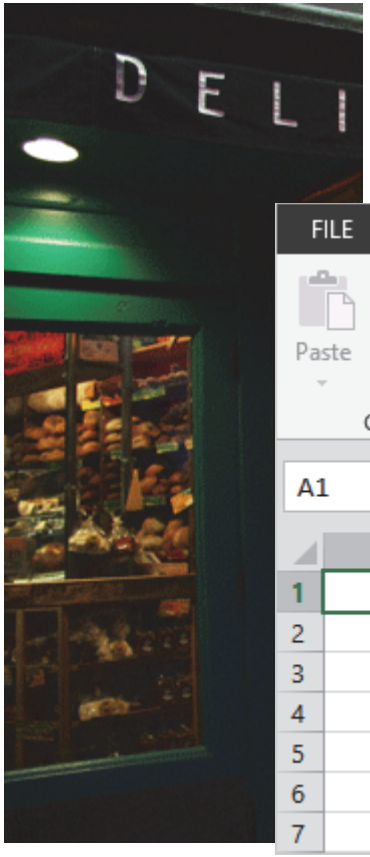
1. Chart Elements->Chart Styles, page 112
2. Chart Elements->Chart Title, page 117
3. Chart Elements->Axis TItles, page 118
4. Chart Elements>Data Labels, page 122
5. Chart Elements->Data Table, page 124
6. Chart Tools->Layout->Gridlines, page 126

From the Chart Design Ribbon:

1. Chart Tools->Design->Chart Styles, page 110
2. Chart Tools->Design->Chart Style->Color, page 111
3. Chart Tools->Design->Change Chart Type, page 131

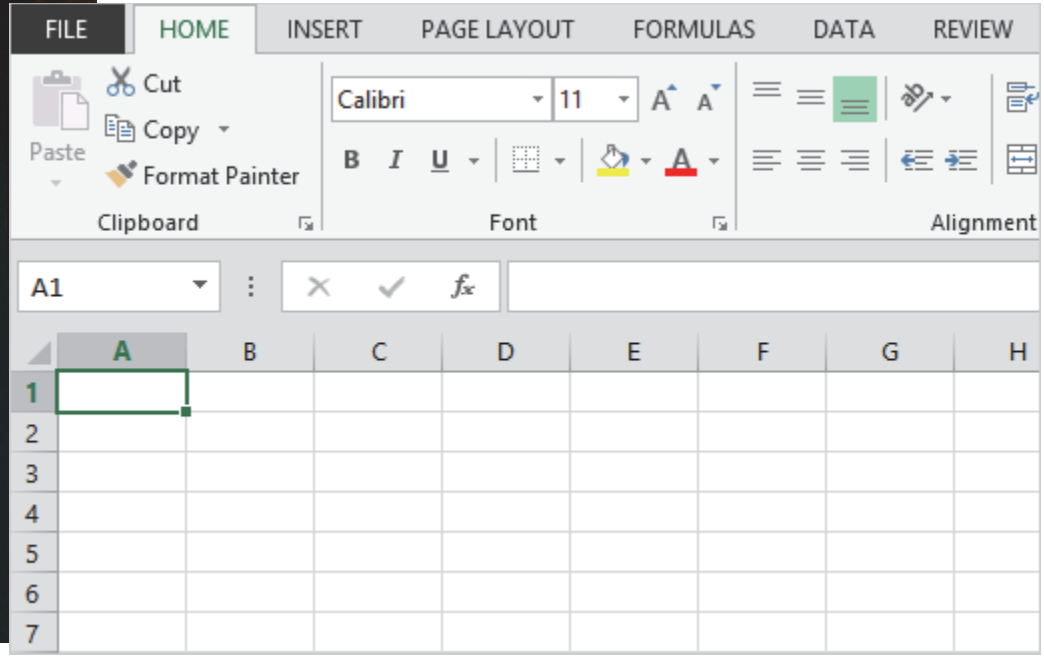
Presenting Data Visually

A **Chart** represents data as symbols, bars, lines or slices of a pie. The data can be tabular (rows and columns in a table), functions (a collection of all ordered pairs, or curve mapping) or structural.



People read charts better than they read columns of data. A chart should tell the story of this data as quickly a possible without a lot of distractions. This lesson demonstrates how to create and format a Chart with the **Chart Tools** (Chart Layout and Chart Design) so that the data is easy to figure out and understand.

Start ->Microsoft Excel



Start Microsoft Excel. When the Welcome screen appears, open a new, blank workbook.

What do you see from the top of the screen? Is there a **Home** Ribbon? And the **Insert**, **Page Layout, Formulas, Data. Review and View** Ribbons as well? Yes.

If your screen looks similar to the example on this page, then you are ready to get started.

Take One

Home -> Number

Sample Data

Before You Begin: These pages are based on data from a spreadsheet that we created in an earlier chapter. It is a simple spreadsheet that you can make or you can download if you wish.

Try it: Create a Price Sheet
Enter the Labels in Row 1.
Enter the Data in Columns A and B.

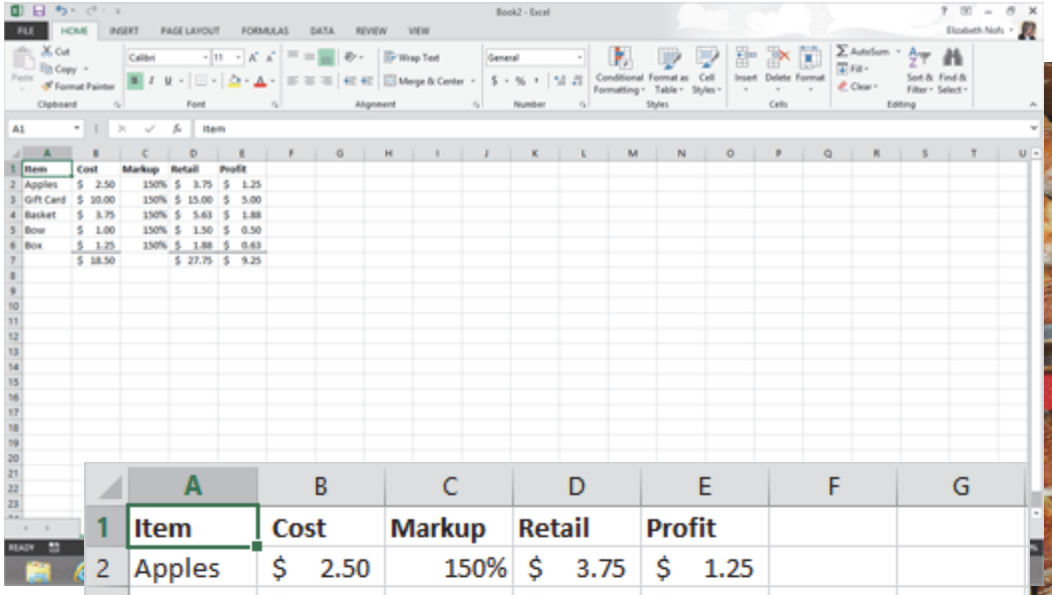
Format Row 1: Bold
Format Column B: Accounting.
Format Column C: Percentage
Format Column D: Accounting

Enter the Markup in Column C: 150%

Calculate the Retail Sale:
D2=B2*C2.
Please copy the formula in Cell D2 into Cells D3:D6.

Calculate the Profit:
E2=D2-B2. Fill that formula down, too.

Keep going...



	A	B	C	D	E	F	G
1	Item	Cost	Markup	Retail	Profit		
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25		
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00		
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88		
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50		
6	Box	$ 1.25	150%	$ 1.88	$ 0.63		
7		$ 18.50		$ 27.75	$ 9.25		
8							
9							



Take One

Create a Pie Chart

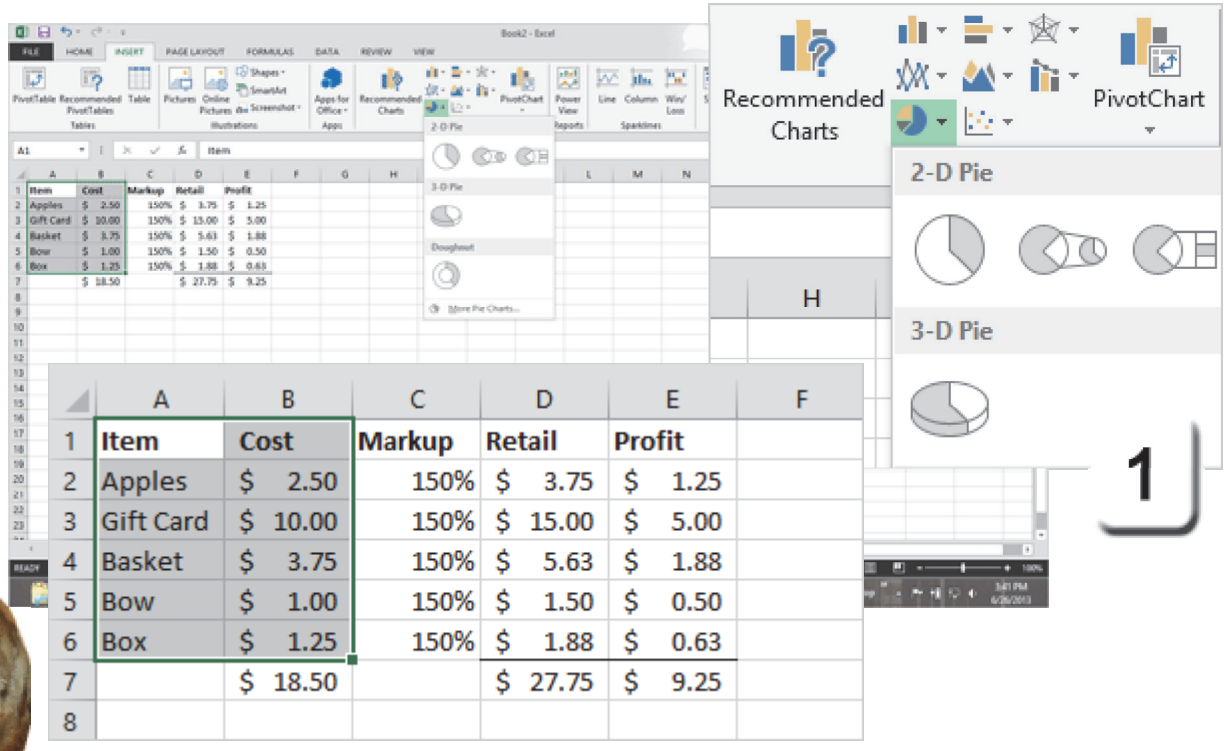
Our goal is to show the percentage of cost that comes from the apples, basket, bow and box. A **pie chart** is a good way to represent the data.

1. Try it: Insert a Pie Chart
Select Cells A1 through B6.
Go to **Insert -> Charts.**
Click on **Insert Pie or Doughnut Chart.**
Select the **3D Pie** from the options.

Keep going...



Insert ->Charts-> Insert Pie or Doughnut Chart



	A	B	C	D	E	F
1	Item	Cost	Markup	Retail	Profit	
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25	
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00	
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88	
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50	
6	Box	$ 1.25	150%	$ 1.88	$ 0.63	
7		$ 18.50		$ 27.75	$ 9.25	
8						

Pie Chart Bonus Points: This chart automatically calculates the percentages for you if you know where to look. <grin>

Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.1 Create a Chart: Select the Range

Take One

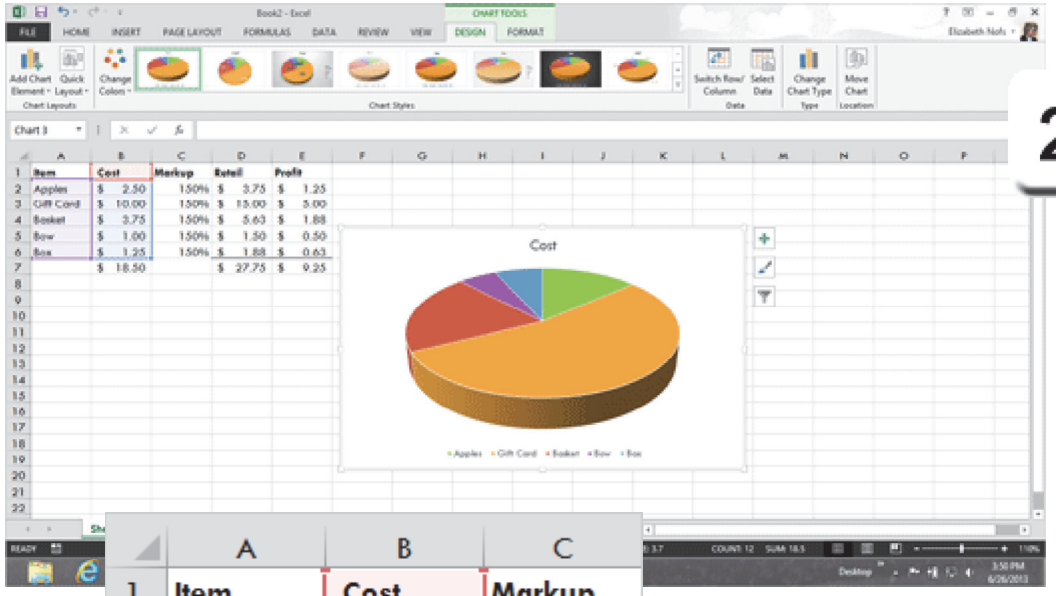
Hello, New Chart

2. What Do You See? Microsoft Excel created a Pie Chart on this sheet. When the chart is selected, you can see the light frame Border.

What Else Do You See? When you select the chart, the **RANGE** of cells that you used are outlined in color. In this example, that RANGE includes the labels and the data from A1:B6.

Keep going....

Chart Tools -> Design



2



	A	B	C
1	Item	Cost	Markup
2	Apples	$ 2.50	150%
3	Gift Card	$ 10.00	150%
4	Basket	$ 3.75	150%
5	Bow	$ 1.00	150%
6	Box	$ 1.25	150%
7		$ 18.50	

Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.1 Create a Chart: Select the Range

Take One

Hello, Chart Tools

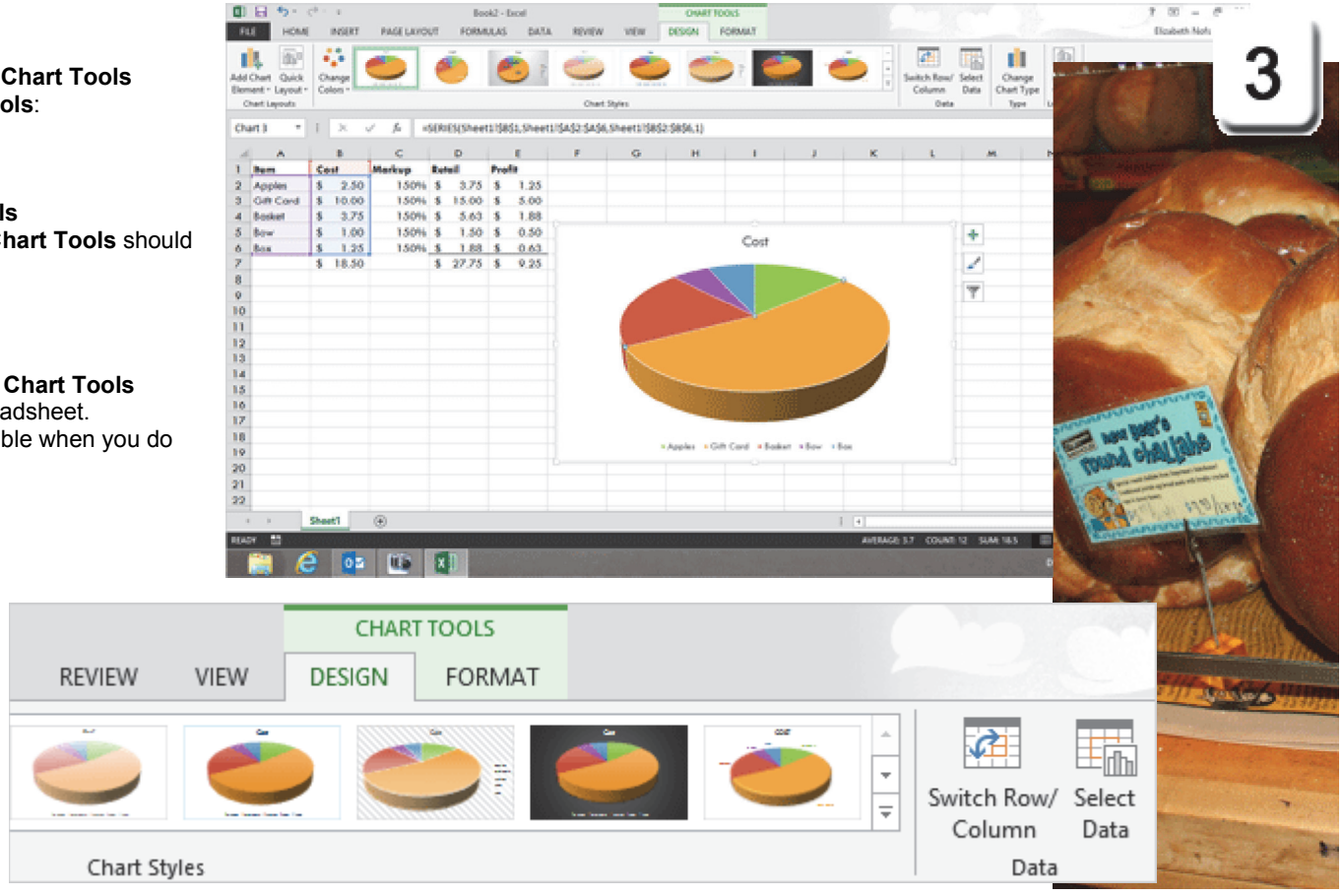
3. Keep Looking: Review the Chart Tools
There are two sets of **Chart Tools**:
Design
Format

Try it: Activate the Chart Tools
When you select a Chart, the **Chart Tools** should be available.
Go to **Chart Tools**->**Design.**
Go to **Chart Tools->Format.**

Try This, Too: Deactivate the Chart Tools
Click on a blank cell in the spreadsheet.
The **Chart Tools** are not available when you do not select the Chart.

Keep going...

Chart Tools->Design



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.1 Create a Chart: Chart Tools (Design)

Chart Tools: Design

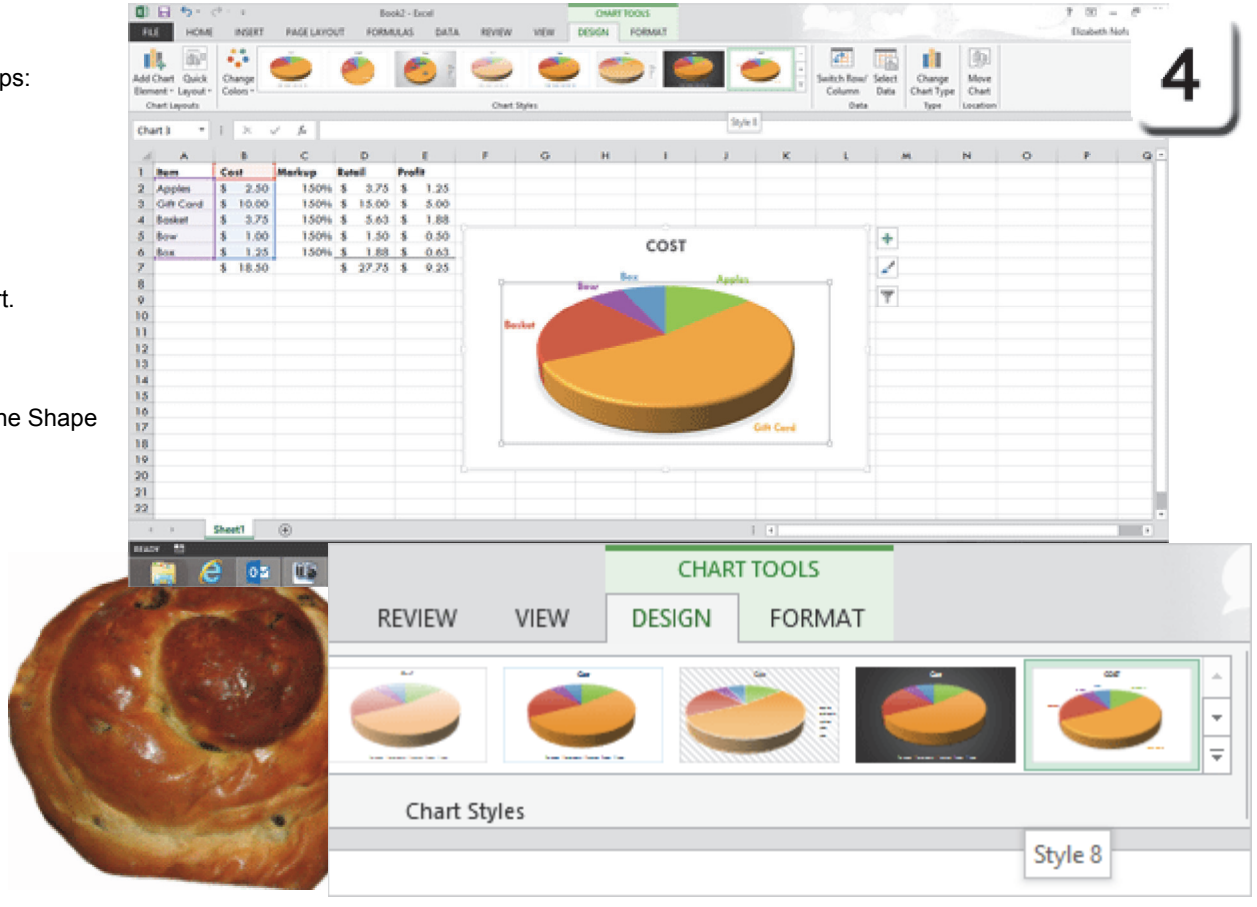
The **Chart Design Ribbon** has five groups:
Chart Layouts
Chart Styles
Data
Type
Location

4. Try it: Play With the Styles
Before you begin, please select the Chart.
Go to **Chart Tools->Design.**
Select a **Chart Style:** Style 8.

What Do You See? The **Styles** format the Shape Fill, Outline and Effects.

Keep going...

Chart Tools->Design-> Chart Style



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles

Take One

Chart Design: Color

The **Chart Styles** includes **Chart Colors**.

5. Try it: Change the Chart Colors
Select the Chart before you begin.
Go to **Chart Tools->Design->Chart Styles.**
Click on **Change Colors.**

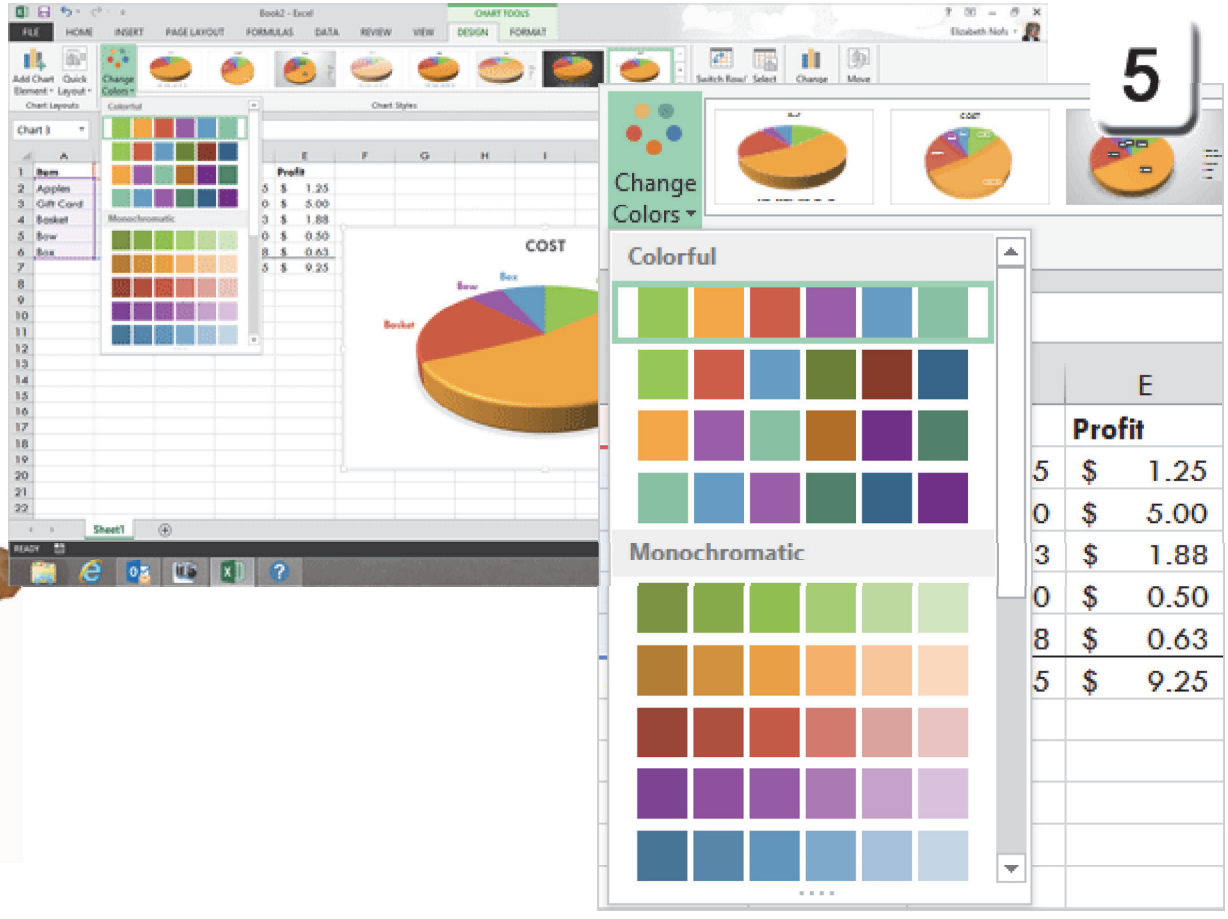
What Do You See? There are Colorful and Monochromatic Styles. Watch how the formatting changes in Live Preview as you run your mouse over the options.

OK, Excel CAN be fun. Really.

Keep going...



Chart Tools->Design-> Chart Styles



Take One

Chart Elements

Something to Note: When you select a Chart you should see the **Chart Elements** on the right side of the Chart.

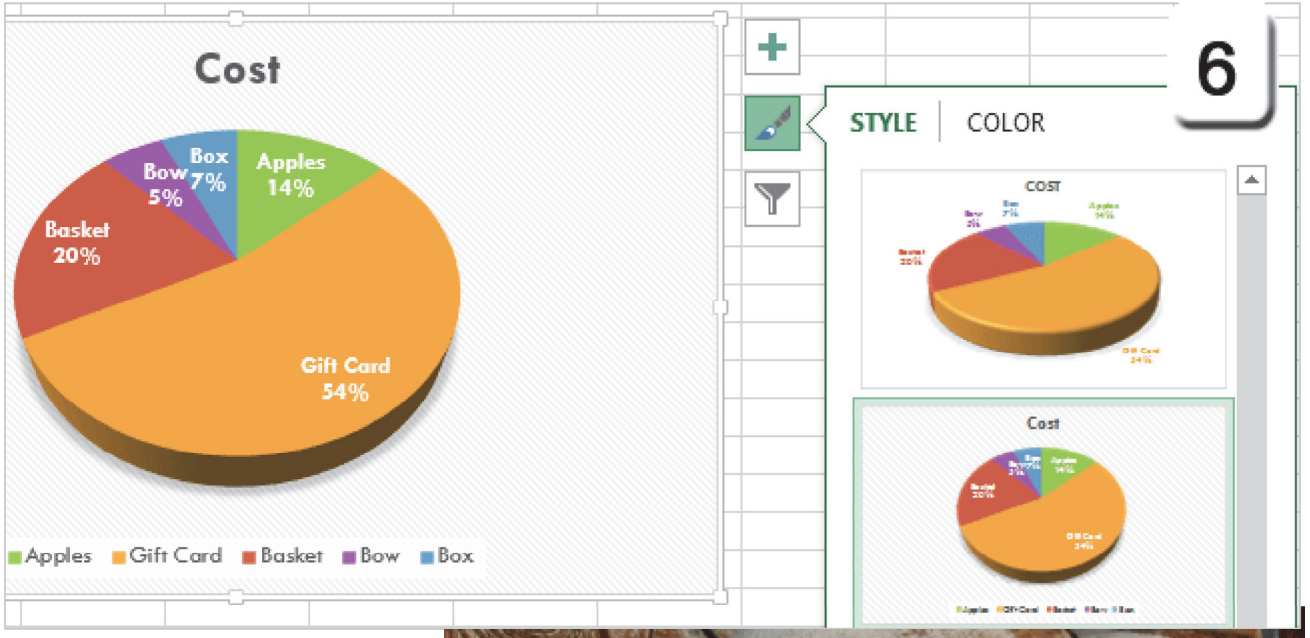
There are three Chart Elements:
Chart Elements (a plus sign)
Chart Styles (a paint brush)
Chart Filters (a funnel)

6. Try This: Find the Chart Styles
Click on the Chart to select it.
Go to the **Chart Elements**
Click on **Chart Styles.**

What Do You See? There are two options: Style and Color.
Click on **Style**.
Select a **Chart Style**: Style 9.

That's a start: a simple pie Chart. Please close this spreadsheet. You do not have to save it.

Chart Elements->Chart Styles



Take One

Chart Layout

The next pages will demonstrate several more **Chart Elements**. This example is based on a Column Chart. Here are the steps to create that Chart.

1. Try it: Enter the Data
Please select a blank spreadsheet.
Enter the Labels in Row 1.
Cell A1: Department
Cell B1: Salary

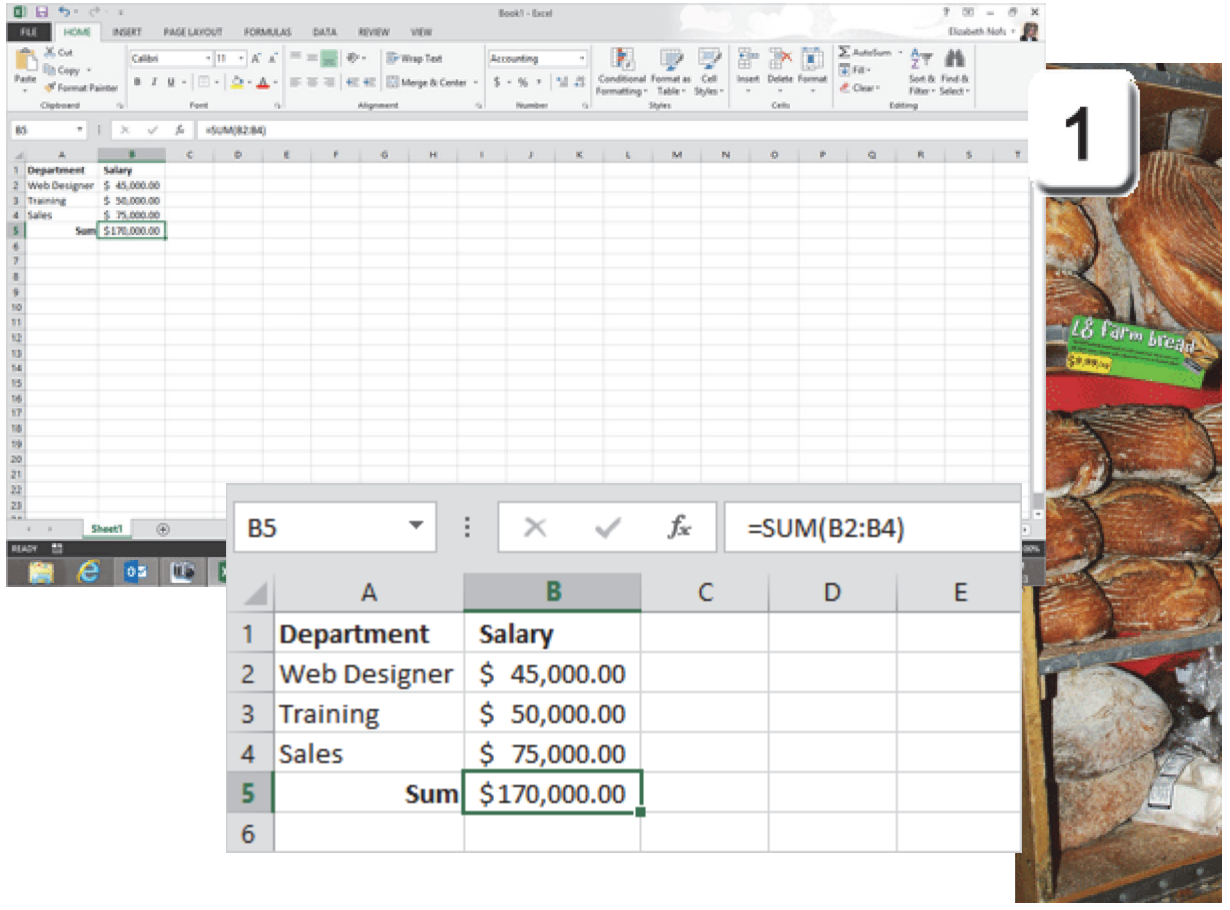
Enter the Data in Column A.
Cell A2: Web Designer
Cell A3: Training
Cell A4: Sales

Enter the Numbers in Column B.
Cell B2: 45,000
Cell B3: 50,000
Cell B4: 75,000
Format Row 1: Bold
Format Column B: Accounting

Calculate the SUM
B5=SUM(B2:B4)

Keep going...

Home->Number

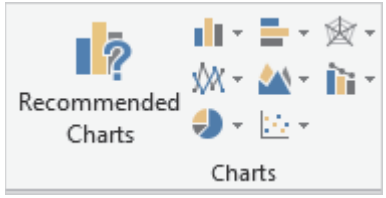


Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions: Demonstrate How To Apply the SUM Function

Take One

Insert a Column Chart

2. Try it: Insert a Column Chart
Please select Cells A1:B4.
Go to **Insert->Charts.**
Click on **Recommended Charts.**



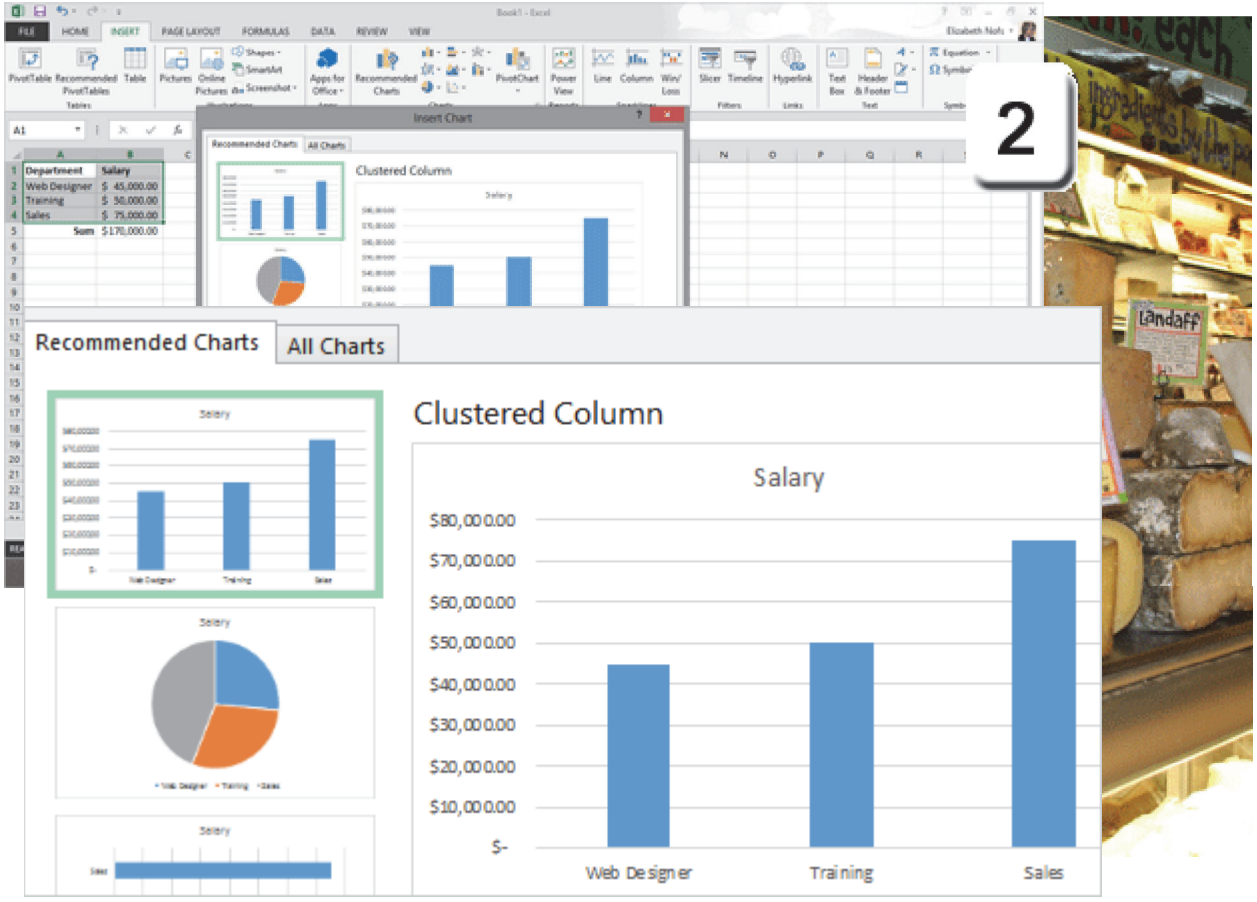
What Do You See? A window will prompt you to select a **Recommended Chart**. The first recommendation, a Clustered Column Chart, is shown with a preview of the selected data .

What Else Do You See? There is a second tab that lists **All Charts**.

Select a Recommended Chart:
Clustered Column.
Click **OK**.

Keep going...

Insert->Chart-> Recommended Charts



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Recommended Charts)

Take One

Hello, Column Chart

3. Now, What Do You See? Microsoft Excel created a new Column Chart based on the data that you selected: A1:B4.

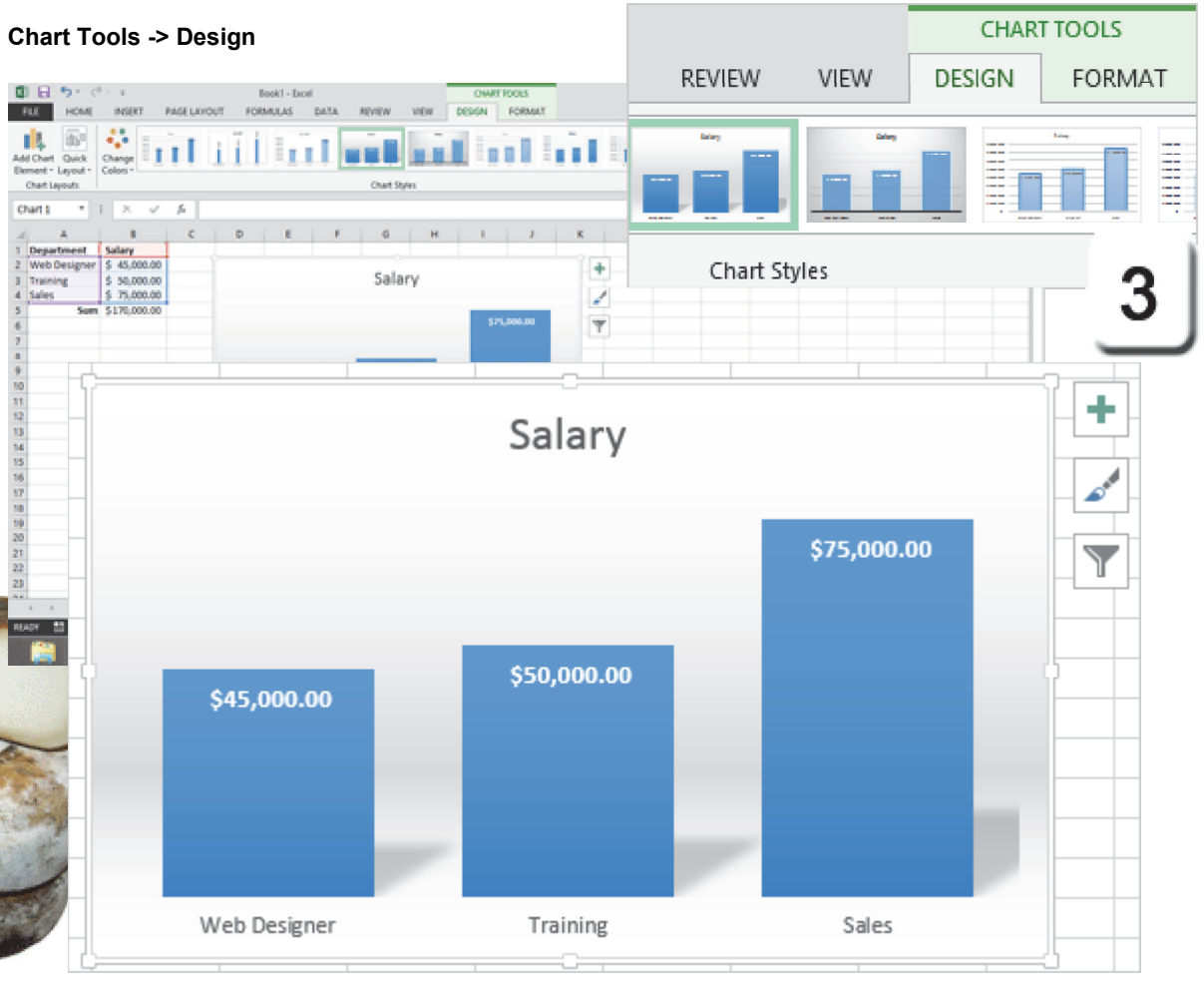
The Chart includes the Departments in Column A and the Salaries in Column B. There is a Chart Title as well as labels.

Try This, Too: Apply a Chart Style
The Chart is selected.
Go to **Chart Tools->Design**.
Select a **Chart Style**: Style 4 .

Keep going...



Chart Tools -> Design



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles

Take One

Chart Elements

Chart Elements are the Titles, Labels and Shapes in a Chart. These Elements can be displayed and formatted.

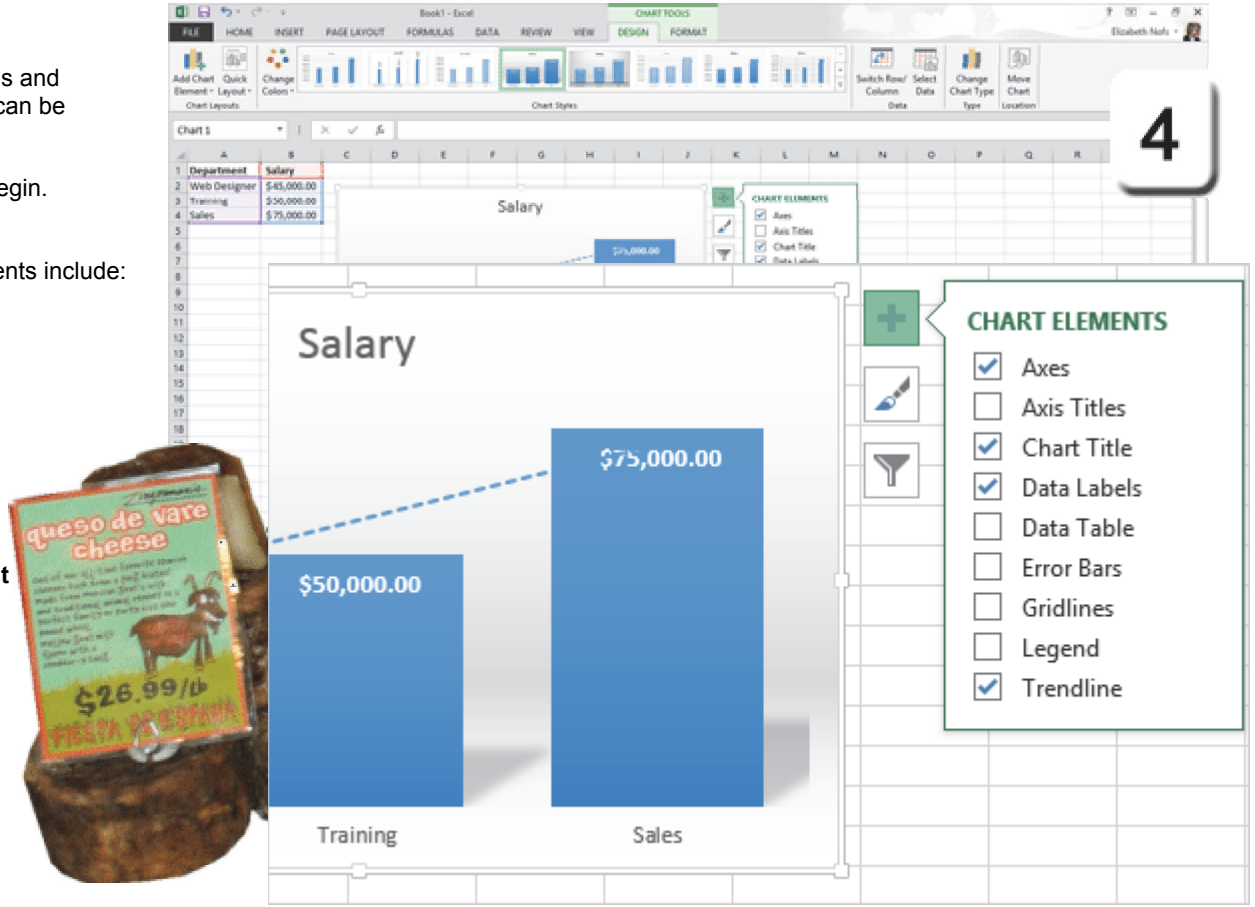
Please select the Chart before you begin.

4. Try it: Find the Chart Elements
Click on **Chart Elements**. The Elements include:
Axes
Axis Titles
Chart Title
Data Labels
Data Table
Error Bars
Gridlines
Legend
Trendline

Try This, Too: Add a Chart Element
Go to the **Chart Elements**.
Click on **Trendline**.
The Trendline will be displayed.

OK, please uncheck Trendline.
Keep going...

Chart Elements



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements: Trendline)

Take One

Modify the Chart Title

The **Chart Title** is the text at the top of the Chart. The Chart Title In this example is Salary.

5. Try it: Find the Chart Title Options
The Chart is still selected.
Go to **Chart Elements->Chart Title**.
Click on the small arrow on the right.

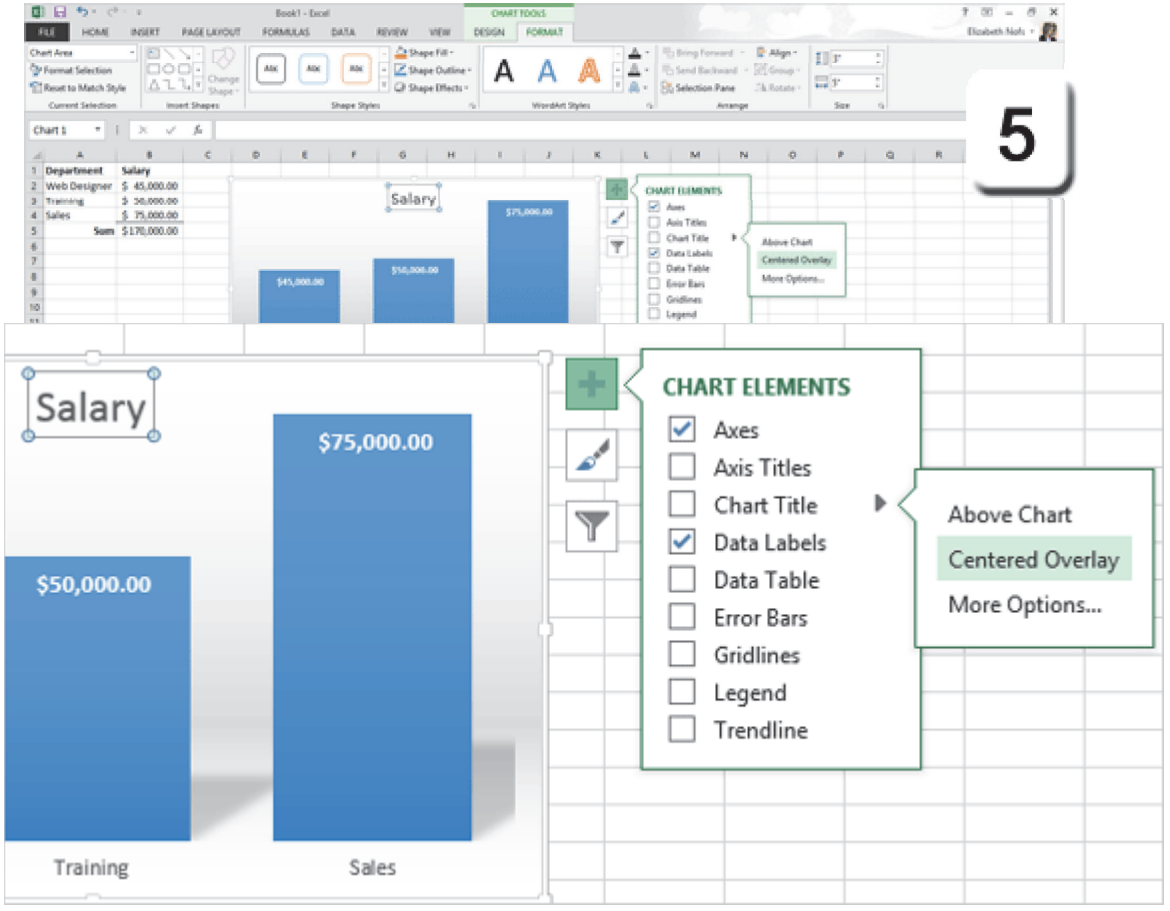
What Do You See? There are several options for the **Chart Title** including:
Above Chart
Centered Overlay
More Options...

Now, Try This: Modify the Chart Title
Select: **Centered Overlay**.

The Title should be centered between the columns instead of above them.

Memo to Self: The Chart Title was created from the label in Cell B1. What happens if you edit the Chart Title directly on the Chart? Will the label in Cell B1 update? (No.)

Chart Elements-> Chart Title



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements)

Take One

Add the Axis Titles

By definition, an **Axis** is the line bordering the chart that indicates the unit of measurement: money, weight, size. The y axis is usually the vertical axis and contains data. The x-axis is usually the horizontal axis and has categories.

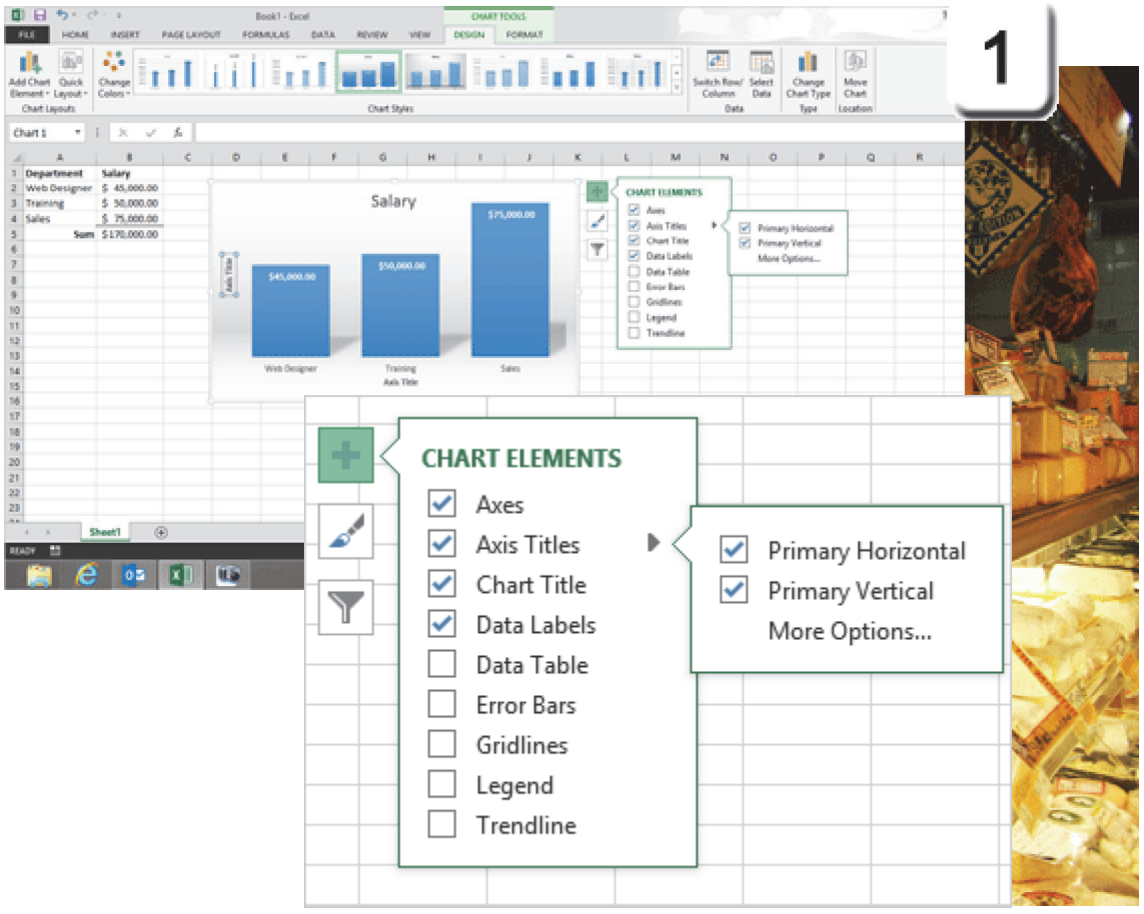
A column or bar chart has two axes: **Primary Horizontal** Axis and **Primary Vertical** Axis. The **Axis** and the Axis Labels can be modified.

1. Try it: Add the Axis Titles
Select the Chart before you begin.
Go to **Chart Elements ->Axis Titles.**
Click on: **Axis Titles.**
Click on the arrow to the right of **Axis Titles.**

What Do You See? When you select Axis Titles both the of the Axes (**Primary Horizontal and Primary Vertical)** are selected. You can pick one or both if you wish.

Keep going...

Chart Elements -> Axis Titles



Take One

Chart Elements -> Axis Titles

Modify the Axis Titles

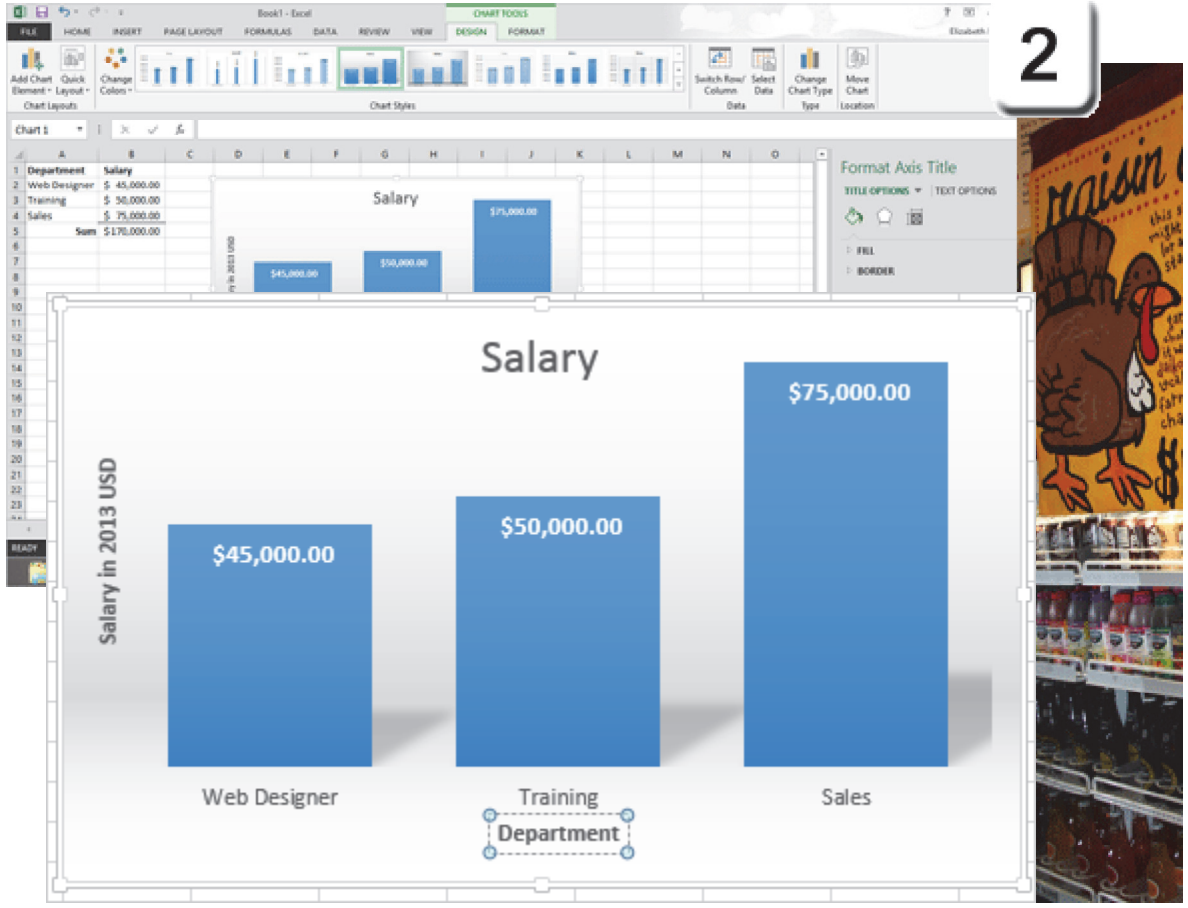
The **Axis Title** is a Text Box, like the Text Boxes found in Microsoft Word and PowerPoint. You can see the borders of the Text Box as you edit the Axis Titles.

2. Try it: Edit the Horizontal Axis Title
Double click the Horizontal Axis Title.
Your cursor should be in the Text Box.
Type: Department

And Try This: Edit the Vertical Axis Title
Double click the Vertical Axis Title.
Your cursor should be in the Text Box.
Type: Salary in 2013 USD

Try This, Too: Can you select the Text Box border and move the Axis Title?

Keep going...



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements) Axis TItle

Find More Axis Title Options

3. Try it: Find the Axis Title Options
Double click the Horizontal Axis Title.
Your cursor should be in the Text Box.

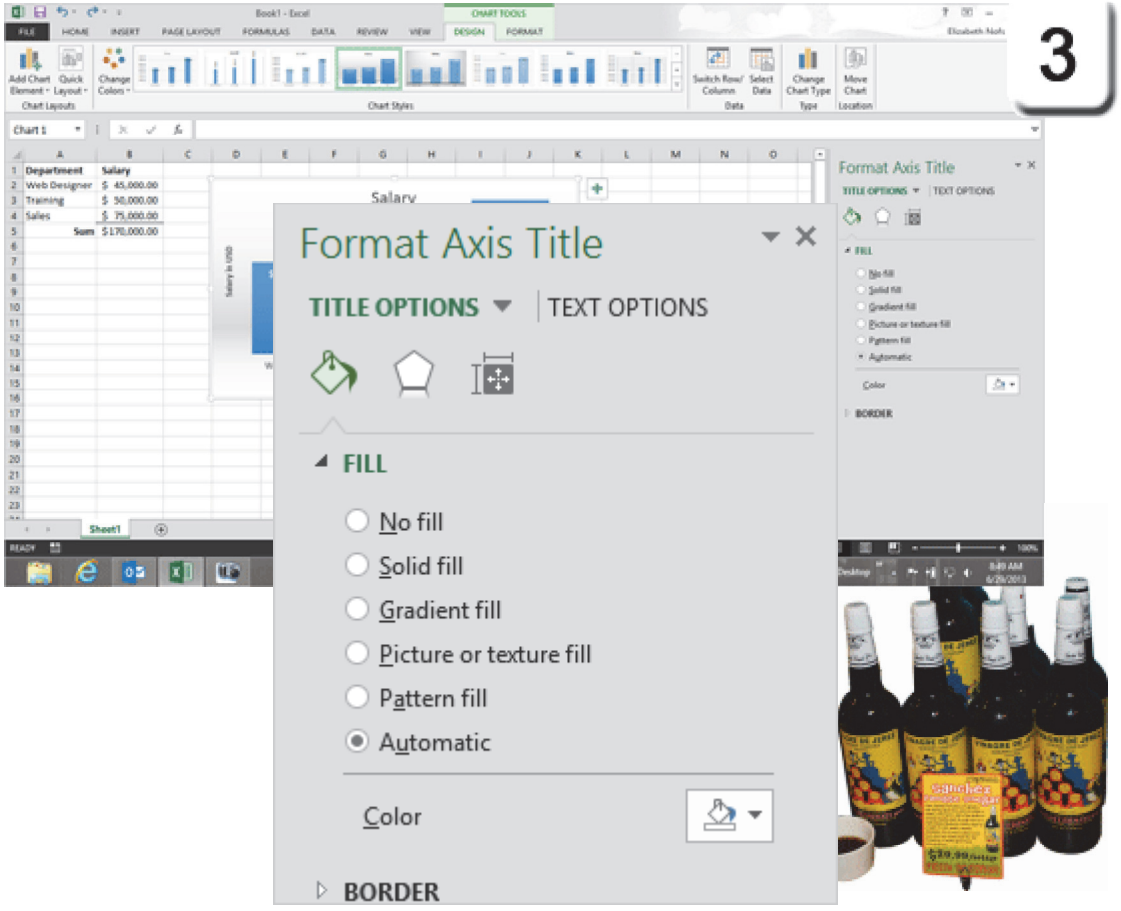
What Do You See? When you click any Axis Title the **Format Axis Title** options will open.

There are **Title Options** and **Text Options**.
The Title Options format the Text Box:
Fill & Line
Effects
Size & Properties

The Text Options format the Text in the Text Box:
Text Fill & Outline
Text Effects
Textbox (Alignment and Margins)

Keeep going...

Memo to Self: Say the Title Options are closed.
This is how you can find them again.
The Chart is selected.
Go to **Chart Elements -> Axis Titles**.
Click on **More Options...**



Take One

Chart Elements -> Axis Titles-> More Options...

4

Axis Title Options: Effects

The Axis Title is a **Text Box.** By definition, a Text Box is also a Shape. Shapes can be formatted. Here are some options.

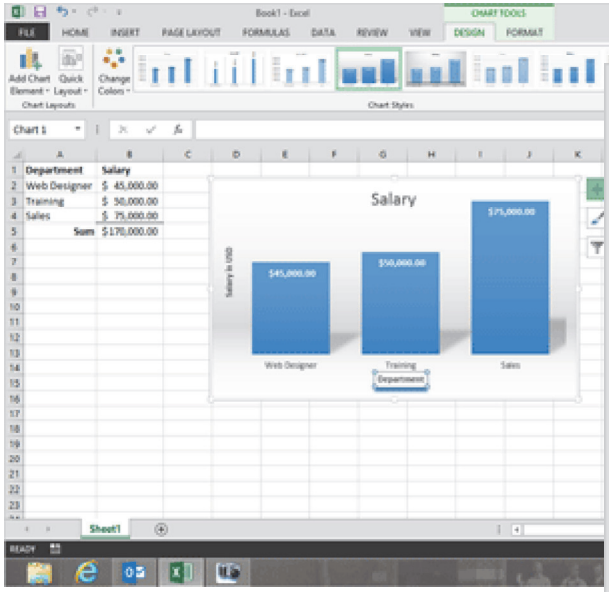
4. Try it: Format the Effects
Choose an **Effect**: Shadow.
Edit the **Color**: Blue.
There should be a blue shadow under the Primary Horizontal Axis Title.

What Else Do You See? The **Effects** include:
Shadow
Glow
Soft Edges
3-D Format

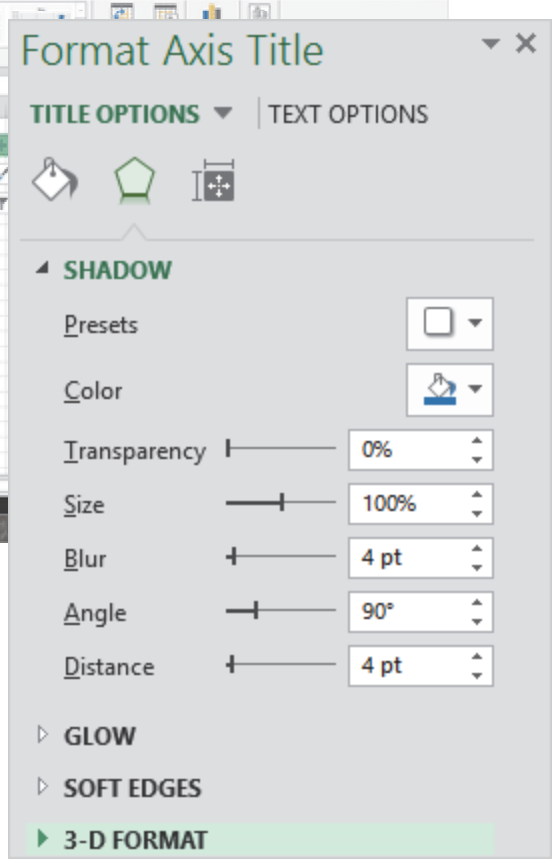
More on that later.

Close the Format Axis Title Options by clicking on the small "x" to the right of the heading Format Axis Title.

Keeeeep going...







Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements) Axis Title Options

Show the Data Labels

The Chart **Data Labels** display the numbers (money) for each Column. The Data Labels can be shown inside or outside the Column.

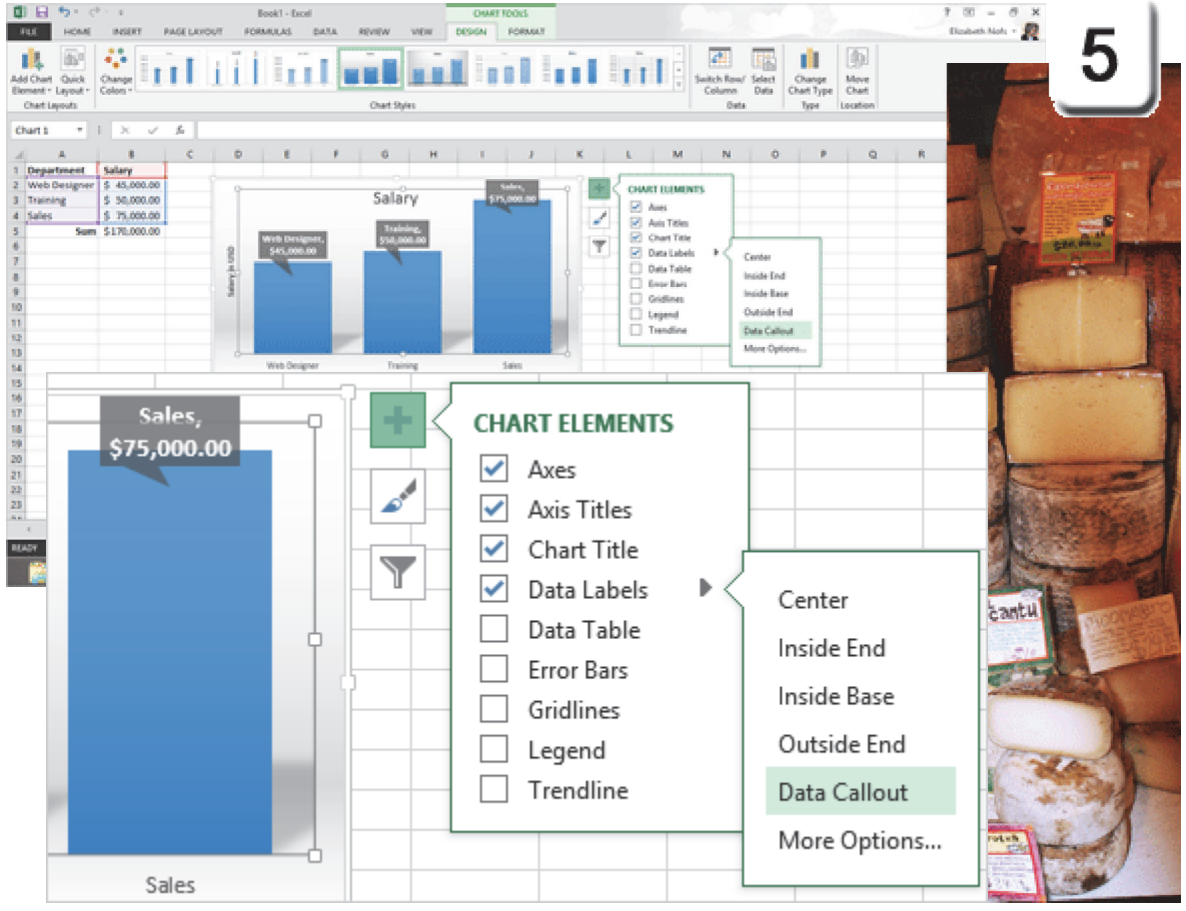
5. Try it: Find the Data Labels
The Chart is still selected.
Go to **Chart Elements -> Data Labels.**

What Do You See? There are several options:
Center
Inside End
Inside Base
Outside End
Data Callout
More Options...

OK, Try it: Show the Data Labels
Click on: **Data Callout.**

Not bad. There's more...

Chart Elements -> Data Labels-> Data Callout



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements) Data Label Options

Take One

More Data Label Options

The Callout Label shows two sets of data: The **Category Name** and the **Value**. The Category Names are the departments in Column A. The Values are the salaries in Column B.

6. Try it: Format the Data Labels
Go to **Chart Elements -> Data Labels.**
Click on: **More Options...**
The Data Label options will open on the right.

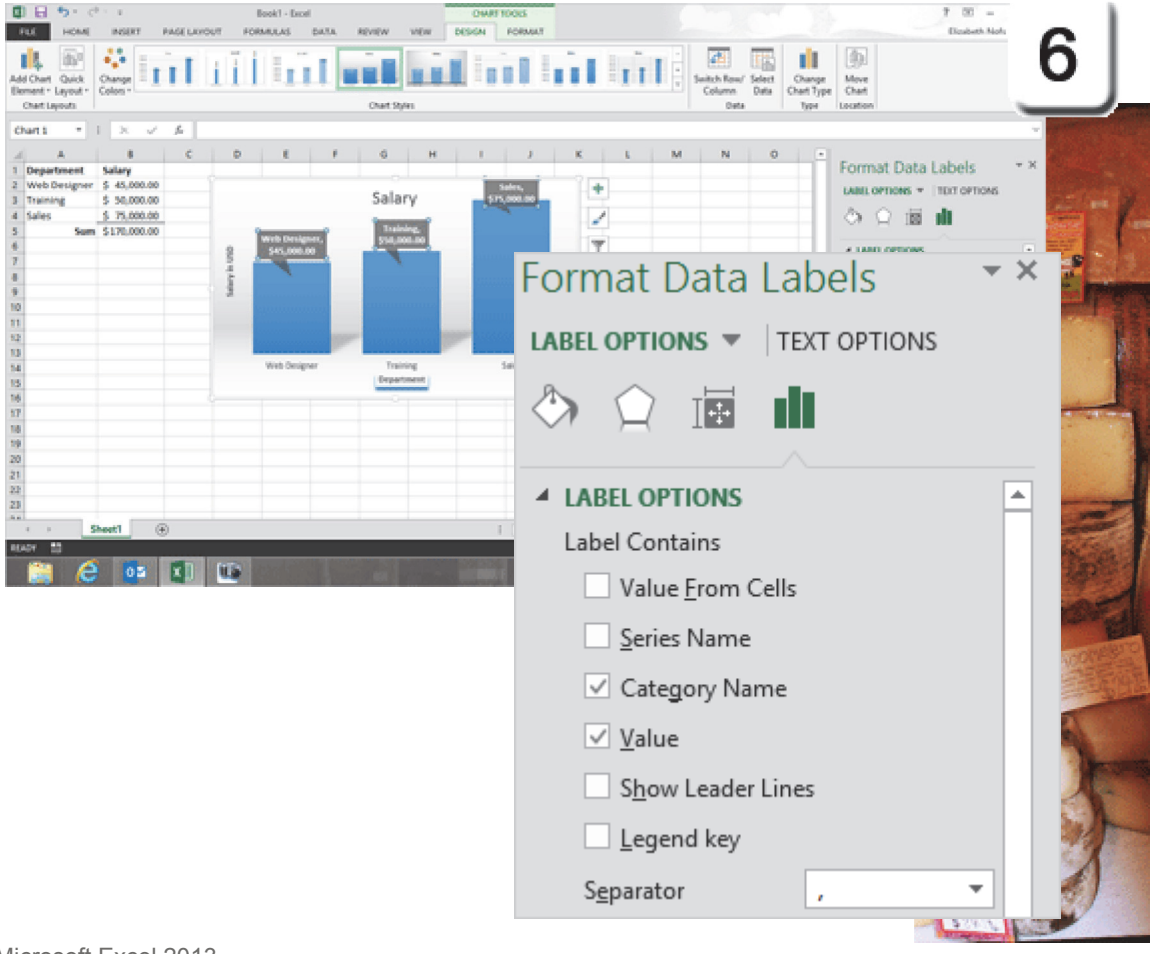
What Do You See? The Label Options are:
Label Contains
Label Position

The options under **Label Contains** are:
Value From Cells
Series Name
Category Name
Value
Show Leader Lines
Legend key

A **Separator** keeps the data from running together. The Seperator can be a comma, semicolon, period, New Line or space.

Close the Format Data Labels options.
Keep going...

Chart Elements -> Data Labels-> More Options...



Take One

Add a Data Table

A **Data Table** is another way to convey the information. A Data Table displays the Chart data in Rows and Columns. By default, the Data Table is placed under the Chart.

7. Try it: Show the Data Labels
Select the Chart before you begin.
Go to **Chart Elements-> Data Table.**

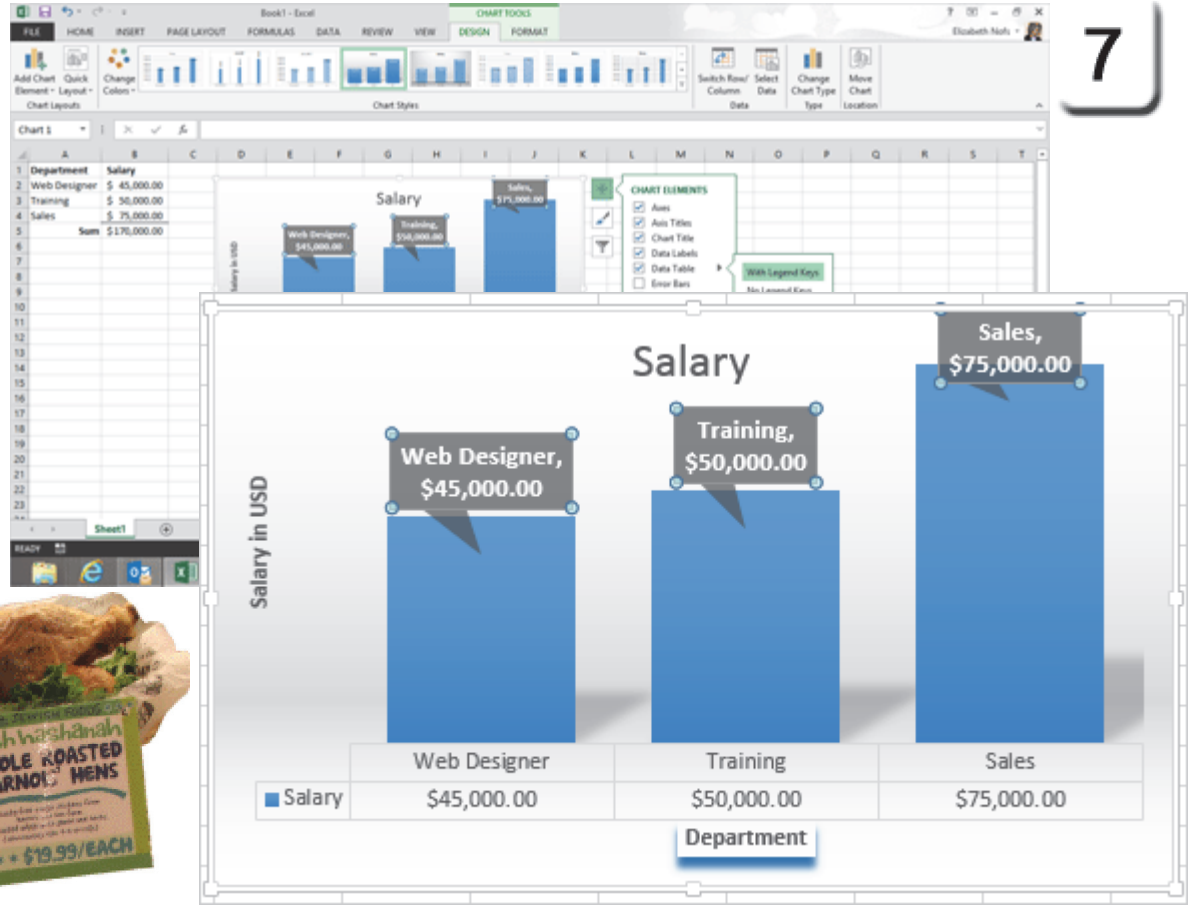
What Do You See? A new **Data Table** will be added to the Chart. The Data Table includes the Category and the Value.

There is also a Legend that displays the Series Name: Salary.

But wait...There's more!

Chart Elements -> Data Table

7





Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements) Data Table Options

Take One

More Data Table Options

8. Try it: Format the Data Table
Go to **Chart Elements-> Data Table.**
Click: **More Options**.
The **Data Table** options will open on the right.

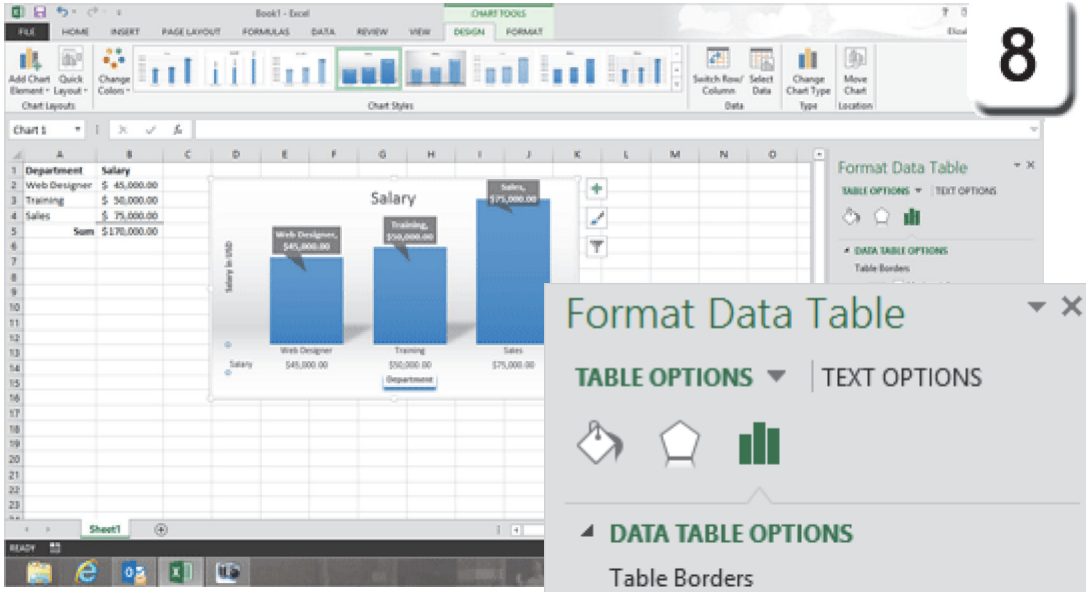
And Do This: Edit the Data Table Borders
Horizontal: Unchecked
Vertical: Unchecked
Outline: Unchecked
Show legend keys: Unchecked

The Data Table looks simple: no borders.

Keep going...

Memo to Self: The purpose of the Chart Elements and the Data Table is to provide information. This Chart has ALL of the Labels turned on. Many of the labels are repeated. You can turn off some of the Chart Elements, such as the Data Table, if you wish.

Chart Elements -> Data Table-> More Options...



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements) Data Table Options

Take One

Chart Elements: Gridlines

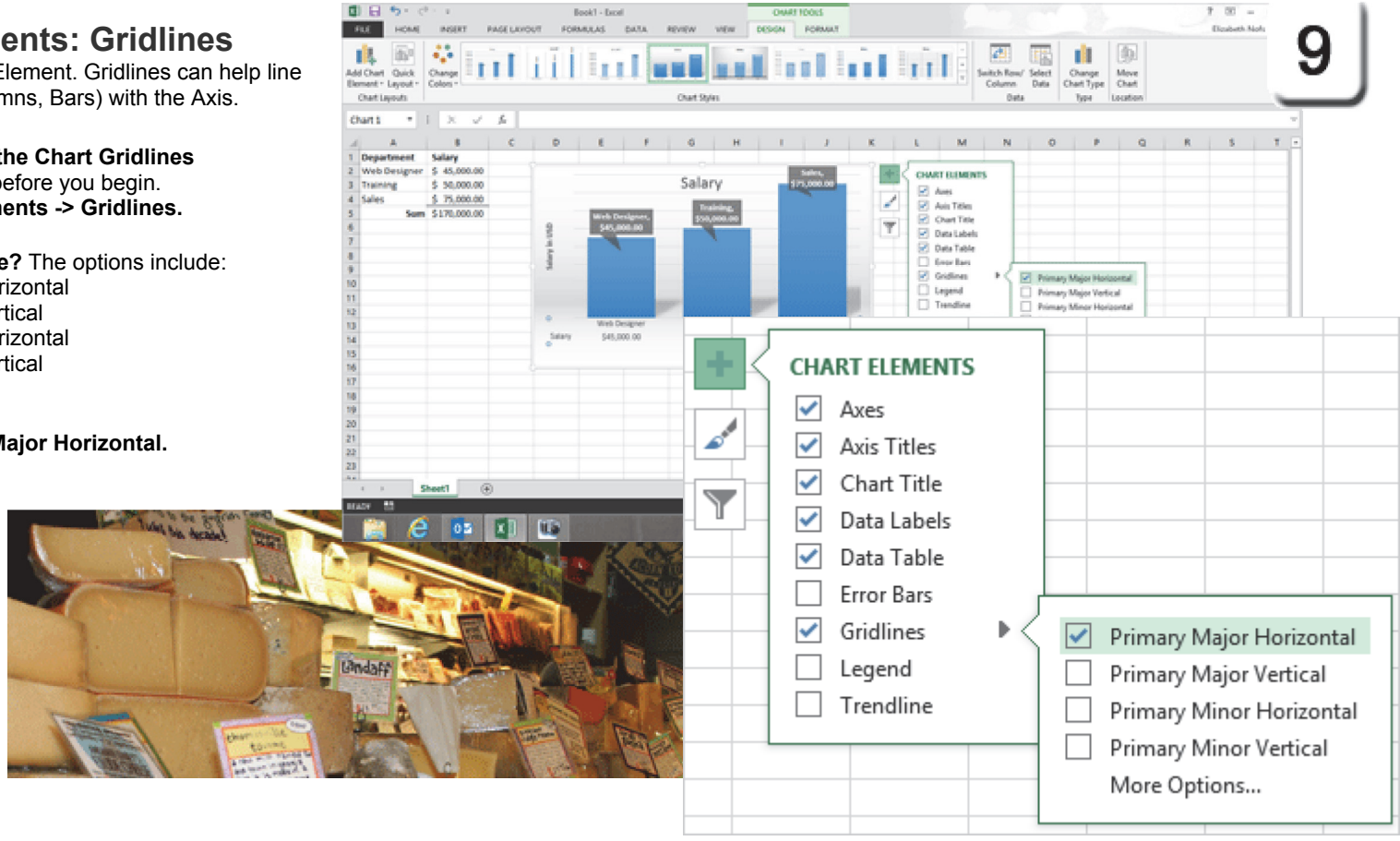
One more Chart Element. Gridlines can help line up the data (Columns, Bars) with the Axis.

9. Try it: Modify the Chart Gridlines
Select the Chart before you begin.
Go to **Chart Elements -> Gridlines.**

What Do You See? The options include:
Primary Major Horizontal
Primary Major Vertical
Primary Minor Horizontal
Primary Minor Vertical
More Options...

Select: **Primary Major Horizontal.**

Chart Elements -> Gridlines-> Primary Major Horizontal



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Elements) Gridlines

Take One

Chart Styles -> Style

Chart Style: Style

Chart Styles quickly change the Layout and Formatting of the Chart Elements: Titles, Labels, Gridlines and Background. There are many Styles that you can apply.

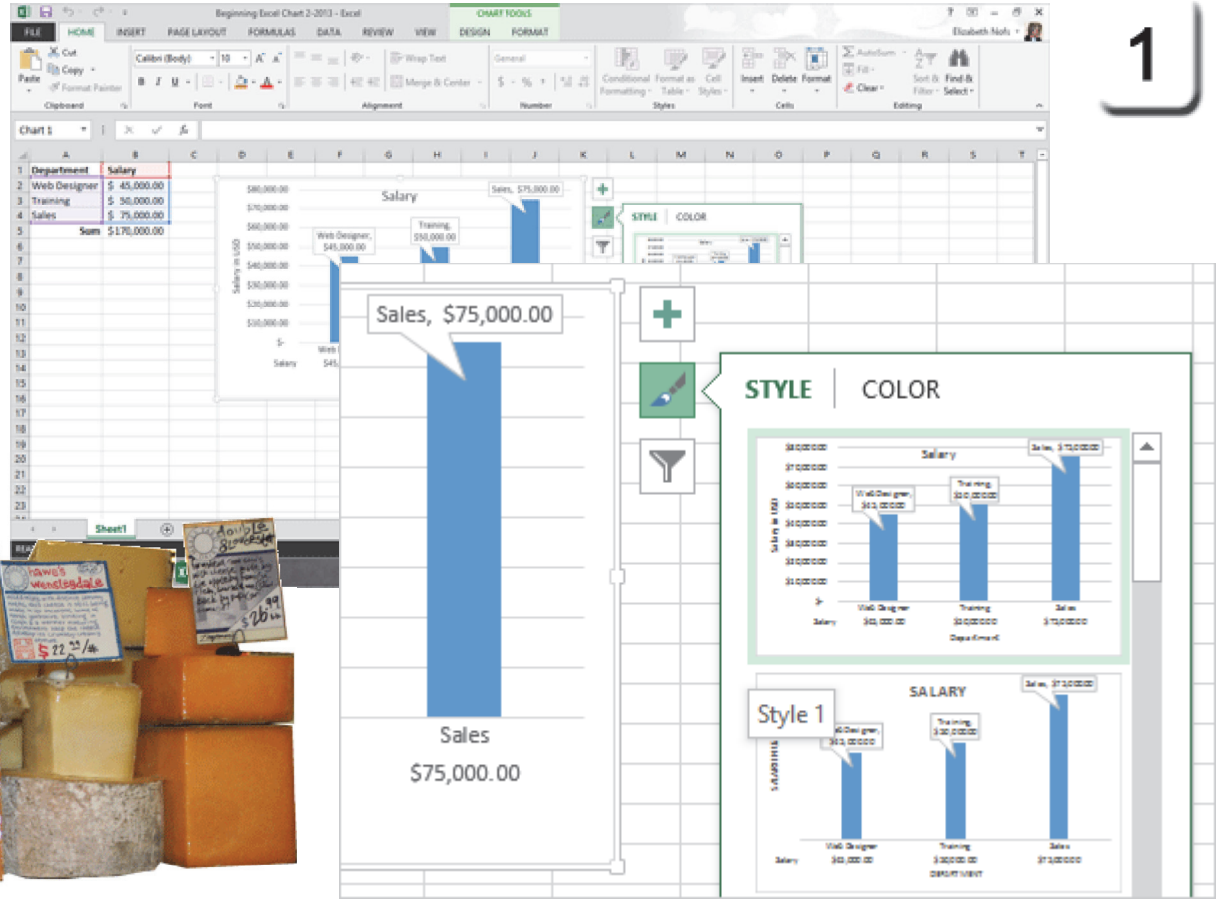
1. Try it: Find the Chart Styles
Select the Chart before you begin, please. Go to **Chart Styles->Style**.

What Do You See? There is a gallery of Chart Styles. This little Chart will change as you run your cursor over the templates. Some of the Charts are easy to read. Others have more detail.

OK, OK: Choose a Chart Style
Select: **Style 1.**

Keep going...





Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Styles)

Take One

Chart Style: Color

The **Chart Style** has two tabs: Style and Color. Let's look at the options for **Color**.

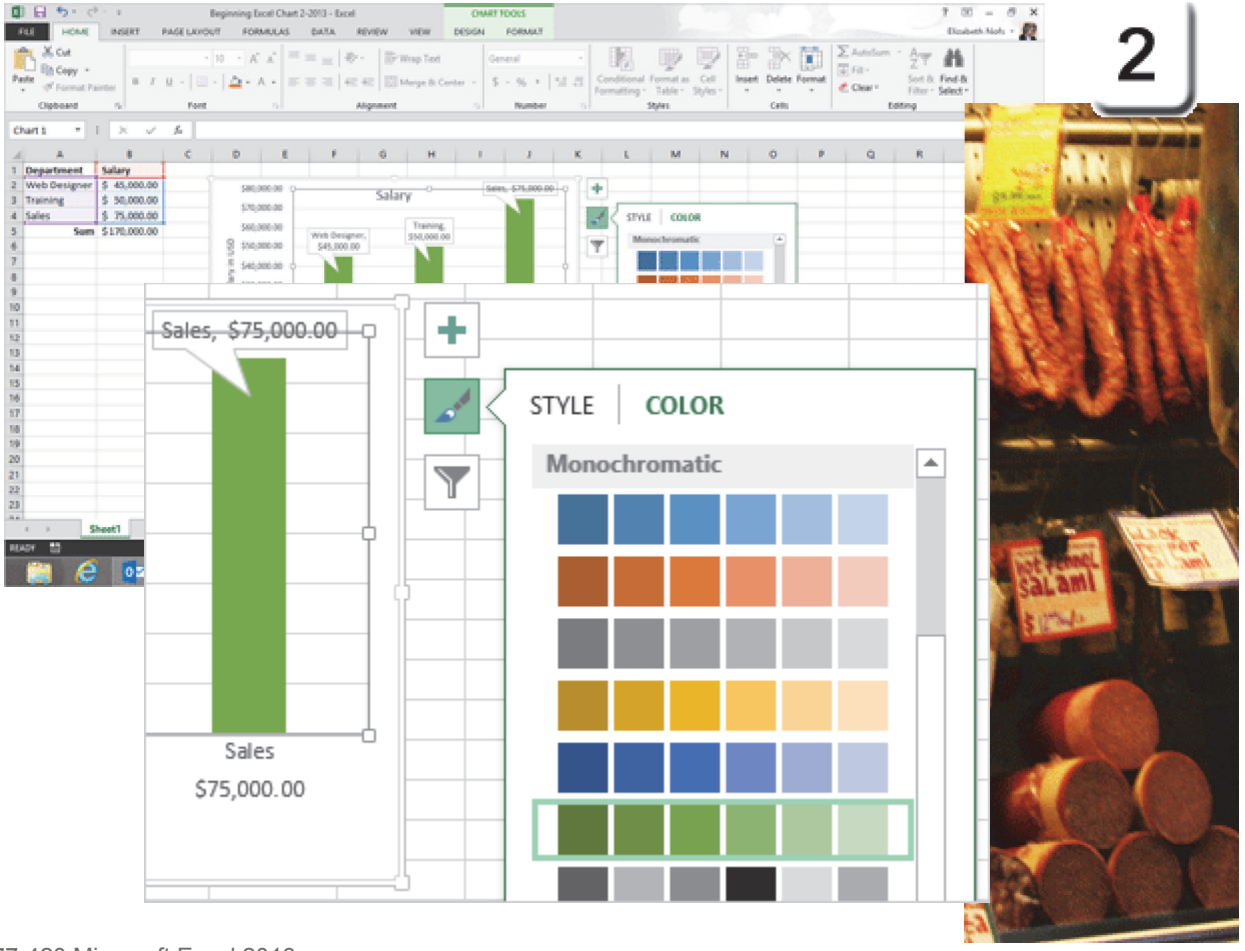
2. Try This: Change the Color
The Chart is still selected.
Go to **Chart Styles->Color**.

What Do You See? This series does not make each data point (Column) a different color. All of the Columns are the same color whether you choose **Colorful** or **Monochromatic**. The pie Chart we made at the beginning of this lesson applies a different color to each slice of pie.

Select a Color: Any green will do, please.

Keep going...

Chart Styles -> Color



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.2 Format a Chart: Apply Chart Layouts and Styles (Chart Color)

Take One

Chart Fun: Format the Shape

There used to be a children's song that said, "Three of these things look like the others. One of these things is not like the others."

People are curious if something looks different. Can you select one data point, or Column, and make it stand out from all of the others?

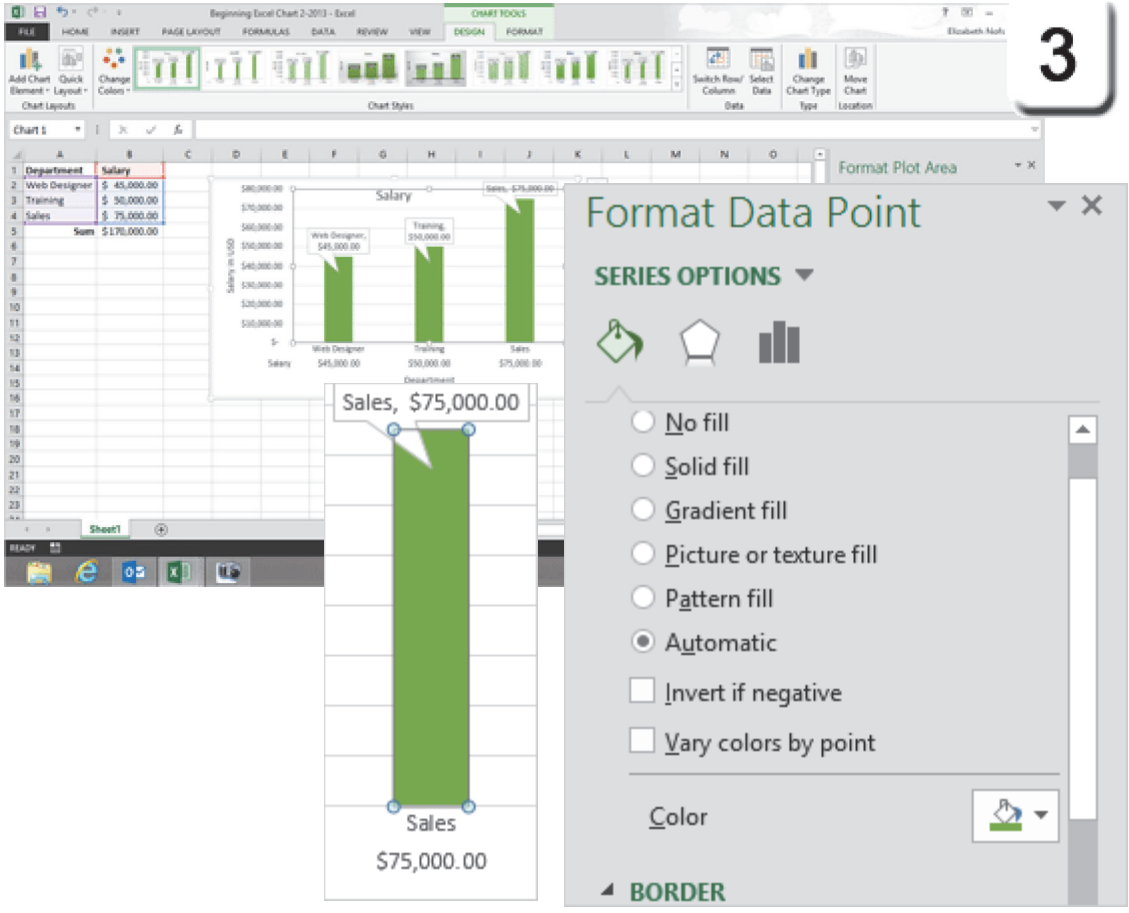
Before You Begin: Select a Column Chart
Double click any Column in the Chart.
Every Column should have handles.

Click once more on the tallest Column.
Now only the tallest Column is selected: It is the only one with handles.

3. Try This: Find the Data Point Formatting
The Formatting pane should open on the right.
Go to **Format Data Point->Fill and Line.**

Keep going...

Format Data Point-> Fill & Line



Fill the Data Point with a Picture

We know how to pick a color to fill the Column. You can also use your own picture if you wish.

4. Try This: Fill the Data Point with a Picture
Go to **Fill & Line->Fill.**
Click on **Picture or texture.**

What Do You See? The Column you selected should be filled with the Texture (prolly burlap).

Made You Look: We Really Wanted This
Go to **Insert picture from...**
Click on **File...**

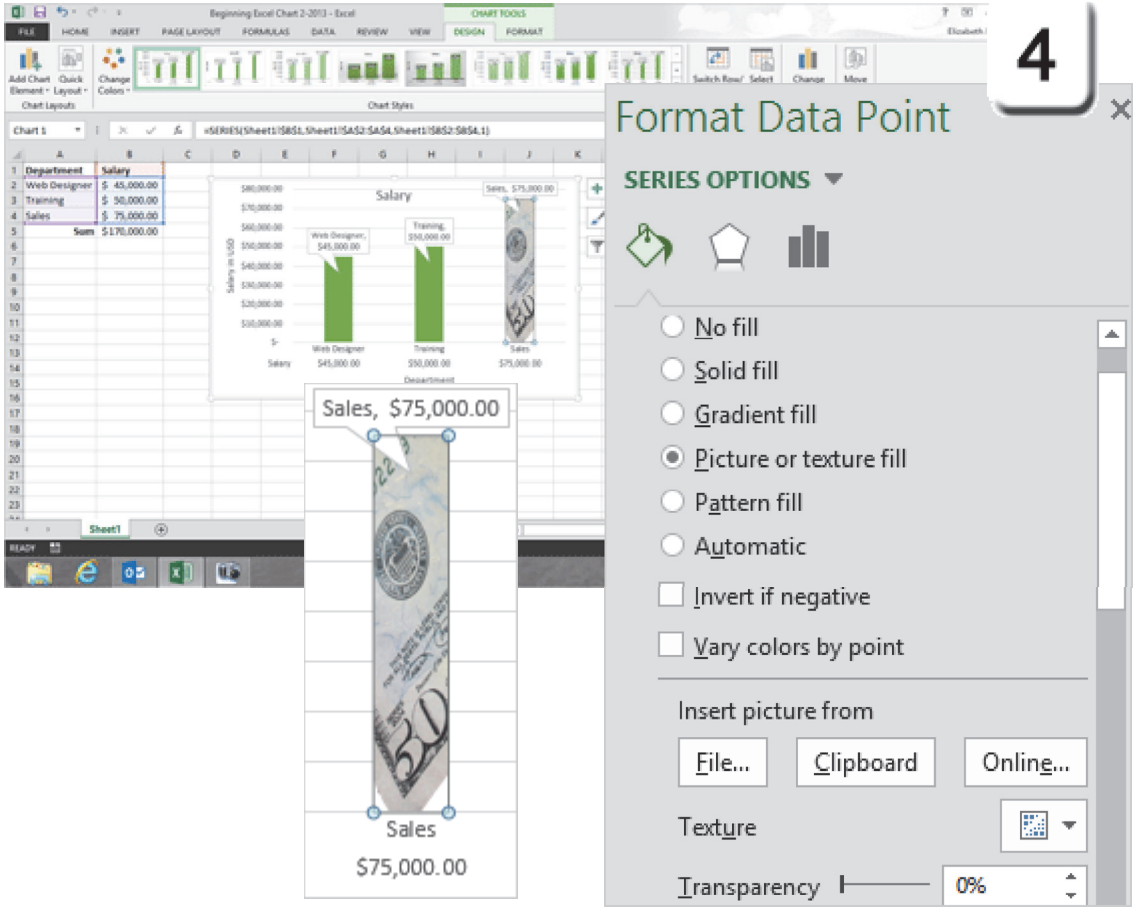
You will be prompted to **Browse** for a picture.
Go to the **Documents** Folder.
Find a picture: Money15.jpg
Double click to select it.

What Do You See? The Column you selected should be filled with the picture.

The purpose of this exercise is to make your graph say more to your audience. Does your chart "Show and Tell?" Does it teach as well as entertain?

Memo to Self: You can use any sample picture.

Format Data Point-> Fill & Line-> Fill



Take One

Chart Design: Change Chart Type

Here is another **Design** function that you may wish to consider. You can change this Column chart into a different **Chart Type**.

1. Try This: Change the Chart Type
Select the Chart before you begin, please.
Go to **Chart Tools -> Design->Type.**
Select **Change Chart Type.**

What Do You See? You will be prompted to choose a different Chart Type.
Go to All Charts->Pie.
Select: 3-D Pie.
Click **OK**.
Your Column Chart will change into a Pie Chart.

Keep going...

Chart Tools -> Design-> Type-> Change Chart Type

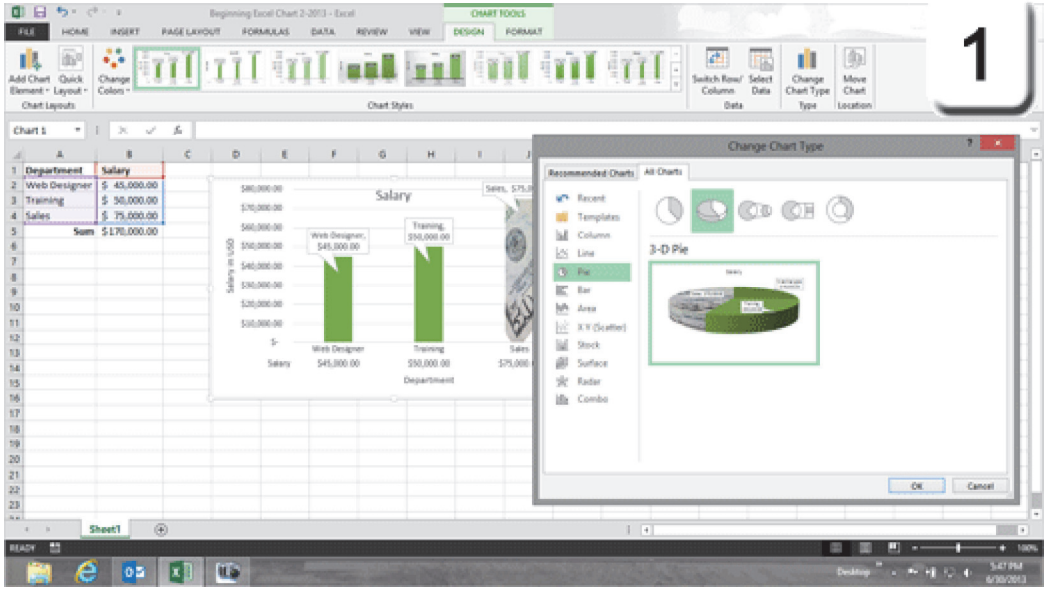






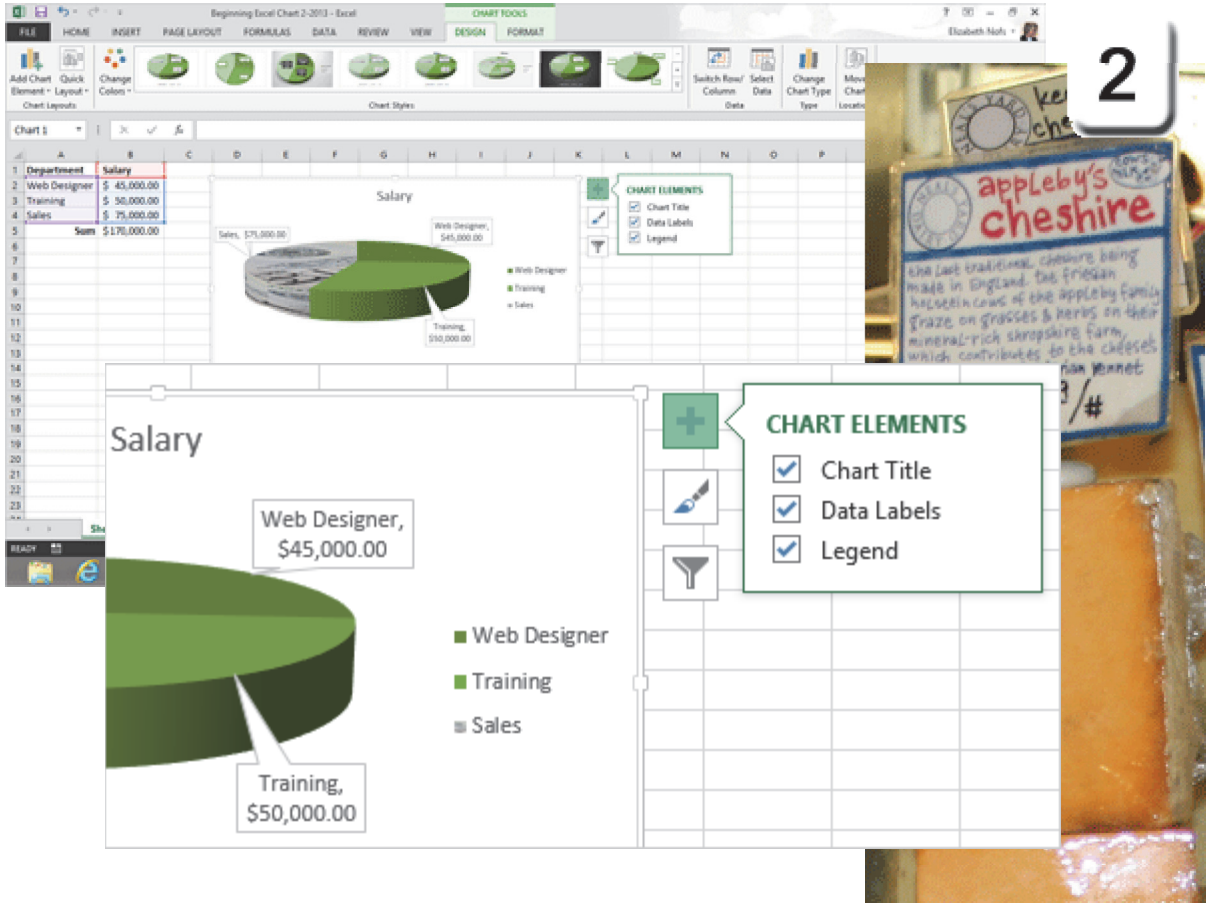
Chart Elements: Add a Legend

2. Really, Try This: Add a Legend
Select the Chart before you begin.
Go to **Chart Elements -> Legend.**

The Legend should be added to the right of the Pie Chart. Done and done.

This example showed how to create, format and modify several simple Charts. The following pages will walk through some of the advanced Chart features.

Chart Elements -> Legend



Take One

Working with Dual Axes

Say you wanted to compare salary and hourly wages. The two data sets have vastly different scales. Salary is measured in thousands per year. Wages would be dollars per hour.

You can add more than one axis when you work with two dimensional (2D) charts.

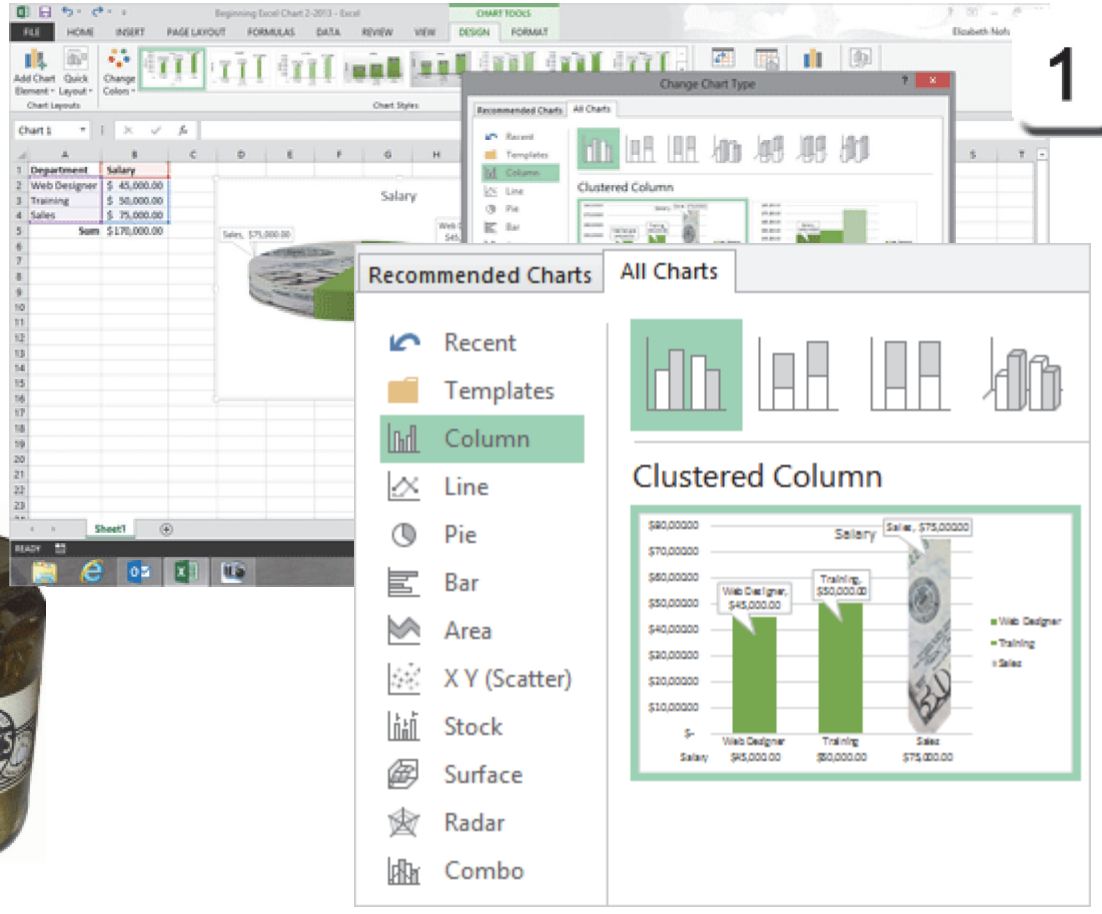
1. Try it: Change the Chart Type
Select the Salary Chart.
Go **Chart Tools -> Design-> Type.**
Click on **Change Chart Type**.
Go to **All Charts->Column**.
Select: **Clustered Column**.

Click **OK**. Keep going...



Chart Tools -> Design-> Type-> Change Chart Type

1



Take One

Add More Data

What are the hourly wages? Well, there are 50 weeks in a year (after you take away the holidays) and 40 hours in a work week. So, hourly wages can be calculated by dividing the Salary by (50*40)

2. Try it: Add More Data
In Cell C1 type: Hourly Wage
This is a label: Format C1 BOLD.

Format the Data: Select Column C.
Format the Cells for Accounting.
(This is money, isn't it?)

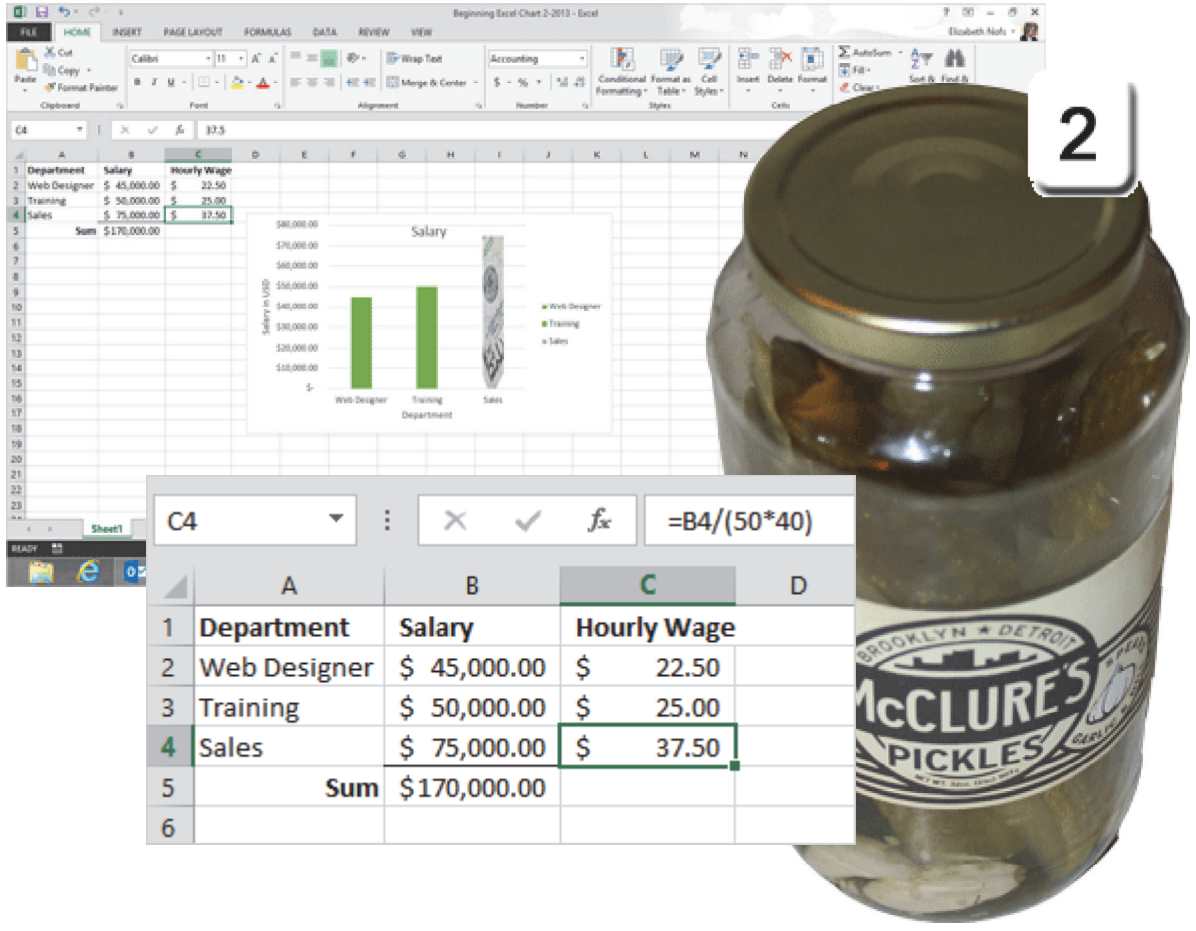
Create a Formula: Select Cell C2.
In Cell C2 enter the formula:
=B2/(50*40)

AutoFIll the Formula: Select Cell C2 and AutoFill that formula in Cells C3:C4.

Proof Your Work: Select Cell C4.
The formula should be:
=B4/(50*40)

Keep going...

Home -> Cells ->Format



Exam 77-420 Microsoft Excel 2013
4. Apply Formulas and Functions
4.2 Summarize Data with Functions

Take One

Chart Tools -> Design-> Data-> Select Data

Select the Data

The Salary Chart uses A1:B4. The new Range will include the data in C1:C4.

3. Try it: Select the Data
Select the Chart, first.
Go to **Chart Tools -> Design-> Data.**
Click on **Select Data.**

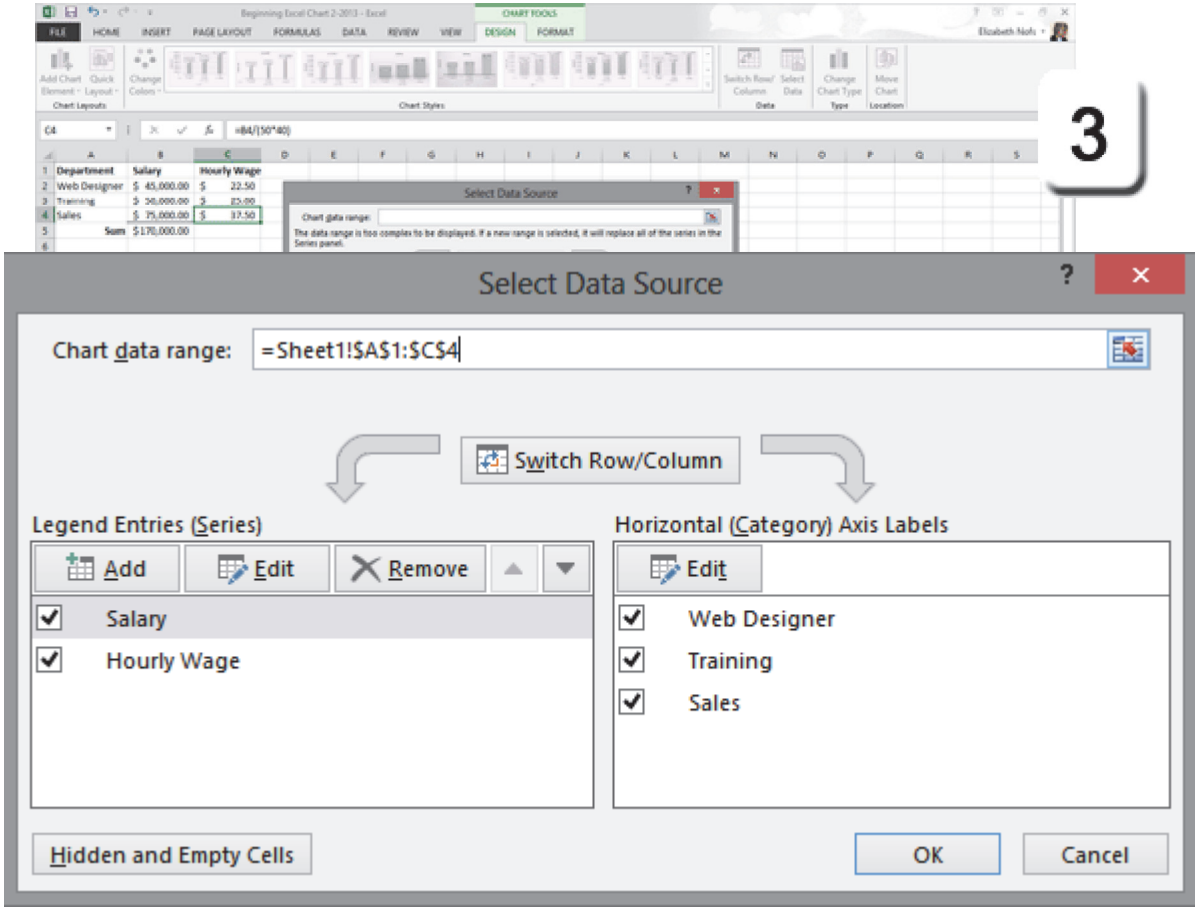
What Do You See? There is one Series on this Chart: Salary. The Category includes the Axis Labels. This is the data from Column A.

So, Try This: Add Another Series
Click on **Chart Data Range**.
Select the Chart Data range: A1:C4.

What Do You See? After you select A1:C4, Excel will add second Series: Hourly Wage.

Click **OK**.

Keep going...

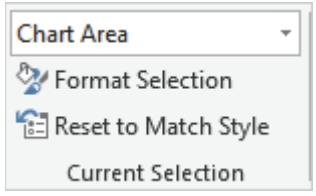


Take One

Select the Series

What Do You See? The new Series, Hourly Wages, is too small to be seen on the same Axis as the Salary.

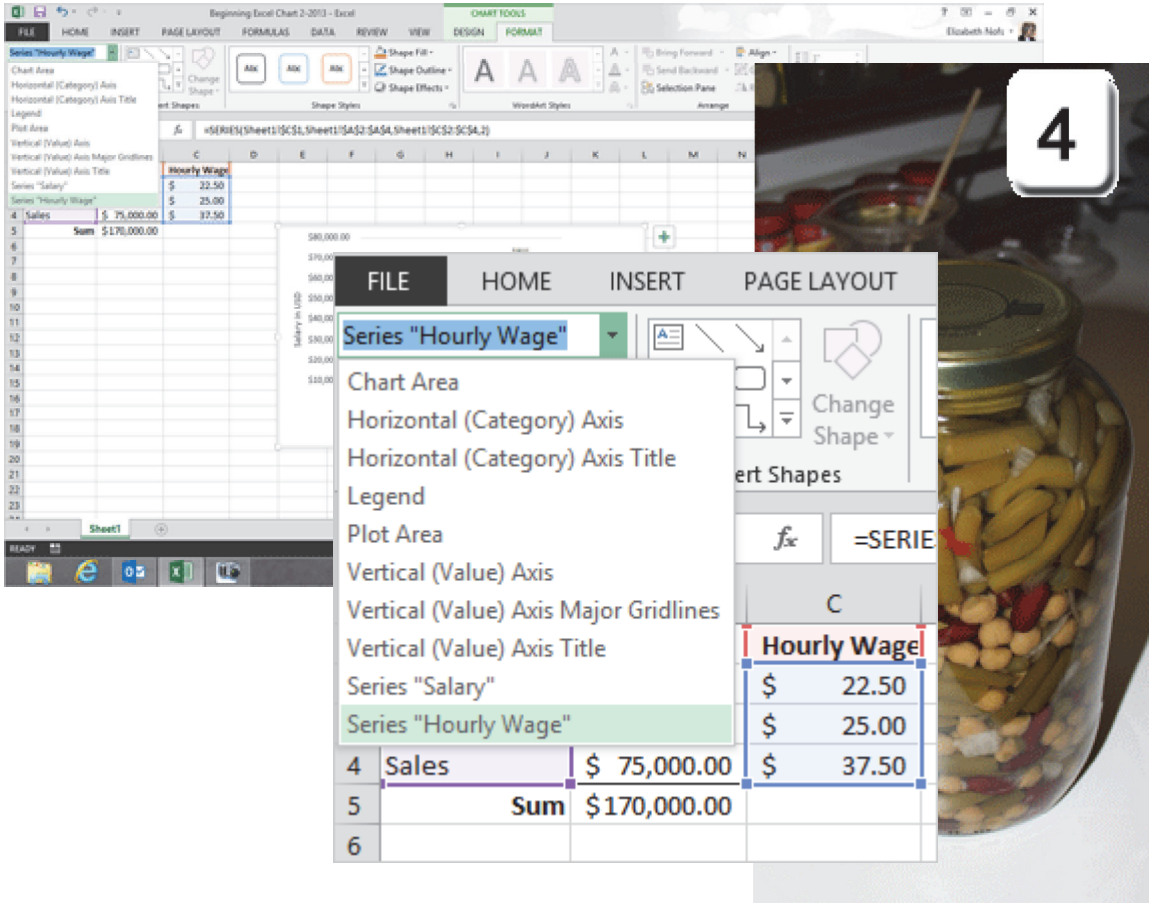
4. Try it: Select the Series
The Chart is still selected.
Go to **Chart Tools -> Format.**
Go to **Current Selection**.



Select **Series "Hourly Wage"**.

Keep going...

Chart Tools -> Format-> Current Selection



Plot Series on Secondary Axis

Now that the Series is selected you can format the Secondary Axis. Here are the steps.

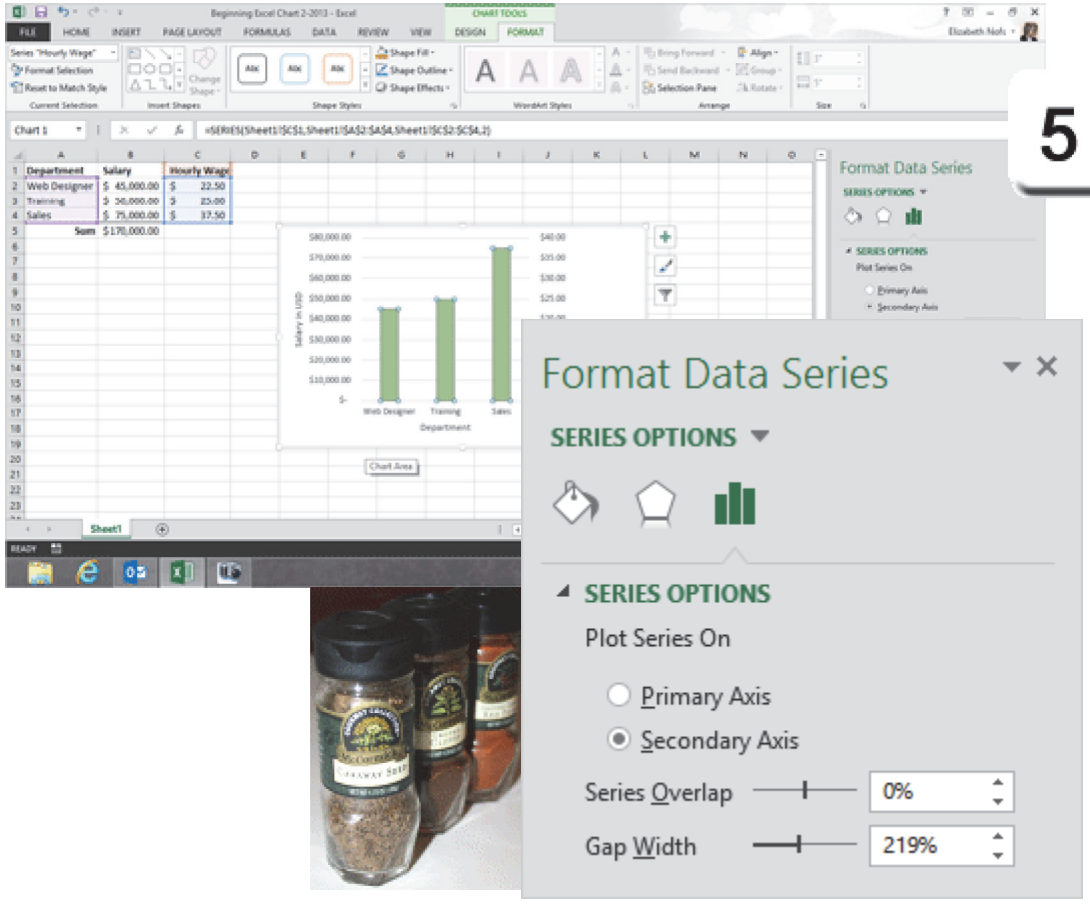
5. Try it: Edit the Series Options
Go to **Chart Tools -> Format.**
Go to **Current** Selection.
Select Series **"Hourly Wage".**
Click on **Format Selection.**

What Do You See? The **Format Data Series** options will open on the right side.
Go to **Series Options->Plot Series On**.
Select: Secondary Axis.

Click **OK**.

Please keep going...

Chart Tools -> Format-> Current Selection



Change Series Type

Hold on, hold on. There are two Series, one on top of the other. Please change the Hourly Wage from a Column Chart to a Line. Then, you will be able to see both data sets in the chart.

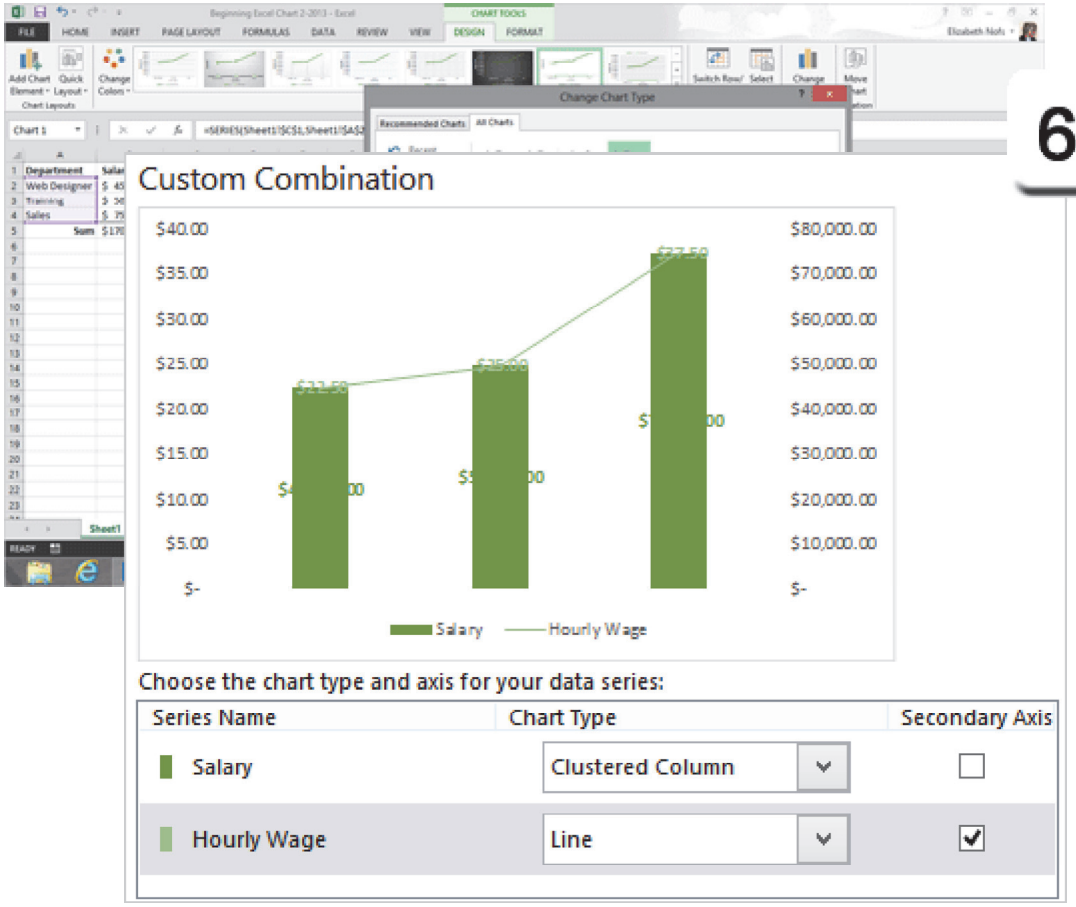
6. Try it: Change the Chart Type
Select the Salary Chart.
Go to **Chart Tools -> Format.**
Go to **Current Selection.**
Select Series "Hourly Wage".

Go to **Chart Tools -> Design-> Type.**
Click on **Change Chart Type.**
This time, you should see Custom Combination.

The Salary should be a **Clustered Column.**
The Hourly Wage should be a **Line Chart.**

Click **OK**. Did it work? Let's see...

Chart Tools -> Design-> Type-> Change Chart Type

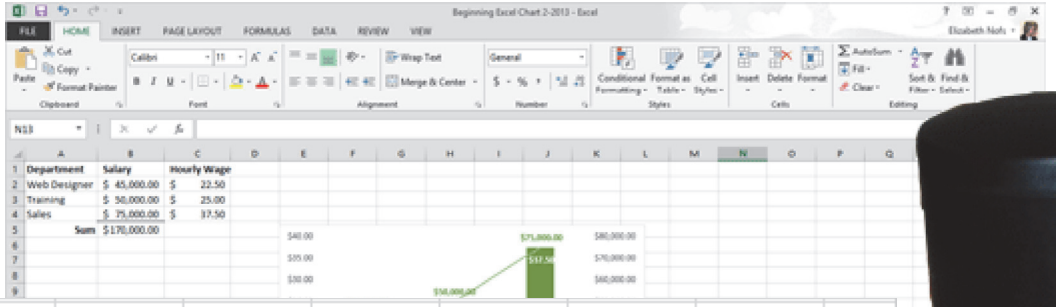


Charts and Chart Elements

Now, there are two different sets of data shown on this Chart. There are two Axes as well.

This lesson introduced visualizing data as Charts. We will look at these options again in the Intermediate and Advanced Guides to Excel.

Very good. You can **SAVE** if you wish.
That's enough for now. You get the cookie.



Department	Salary	Hourly Wage
Web Designer	$ 45,000.00	$ 22.50
Training	$ 50,000.00	$ 25.00
Sales	$ 75,000.00	$ 37.50
Sum	$ 170,000.00	







Test Yourself

1. Which of the following is a Chart Tools Ribbon?
(Select all correct answers.)
a. Design
b. Layout
c. Format
d. View
Tip: Beginning Excel, page 109

2. How do you access the Chart Tools Ribbons?
a. View-> Ribbons-> Chart Tools
b. Charts-> Chart Tools
c. Select the Chart
Tip: Beginning Excel, page 109

3. Which of the following can be formatted by Chart Styles?
(Select all correct answers.)
a. Shape Fill
b. Outline
c. Effects
d. Shape Size
Tip: Beginning Excel, page 110

4. What does Chart Layout apply to?
(Select all correct answers.)
a. Size of elements such as chart titles and data labels
b. Color of elements such as chart titles and data labels
c. Position of elements such as chart titles and data labels.
Tip: Beginning Excel, page 122

5. Chart Elements format which of the following? (Select all correct answers.)
a. Chart Title
b. Data Labels
c. Trendline
Tip: Beginning Excel, page 112-116

6. Which of the following is true?
(Select all correct answers.)
a. Parts of a chart can be formatted individually
b. A shape fill can be a picture
Tip: Beginning Excel, page 129, 130

7. Which of the following can be formatted?
(Select all correct answers.)
a. Chart Color
b. Chart Titles
c. Chart Gridlines
Tip: Beginning Excel, page 126, 127, 128

8. Which option removes a Chart Legend?
a. Chart Elements-> View-> Legend-> Remove
b. Chart Tools-> Format-> Legend
c. Chart Tools-> Layout-> Legend-> None
d. Chart Elements-> Legend
Tip: Beginning Excel, page 132

9. Axis Titles are text boxes.
a. True
b. False
Tip: Beginning Excel, page 119

10. A chart is created from a selected range of cells.
a. True
b. False
Tip: Beginning Excel, page 108



Picture the Data

Beginning Excel Objectives

In this lesson you will learn how to:

1. Add pictures to a spreadsheet.
2. Use the Picture tools to format the Picture Style and Picture Effects.
3. Use the tools to format the Picture Size.
4. Crop a Picture and Crop to Shape.
5. Make Picture Corrections by adjusting the Brightness, Contrast, Color Saturation and Tone.
6. Apply Artistic Effects.
7. Use the Adjustment tools to Compress a picture for Print, Screen, E-mail, or use the document resolution.



Lesson 6: Picture the Data

1. Readings

Read Lesson 6 in your Beginning Excel Guide, page 141-164.

Project

An introduction to the Picture Tools and using pictures in a spreadsheet.

Downloads

Applebox-1.gif, Applebox-2.gif, Applebox-3.gif, Applebox-4.gif, Applebox-5.gif, Applebox-6.gif, Applebox-7.gif, Applebox-8.gif, farm1.gif , business35.gif

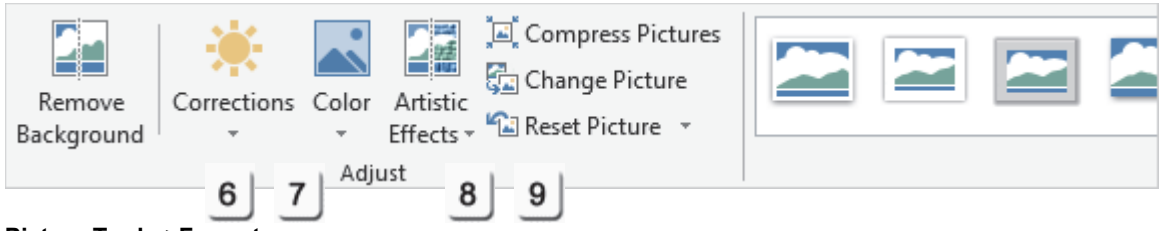
2. Practice

Complete the Practice Activity, page 165

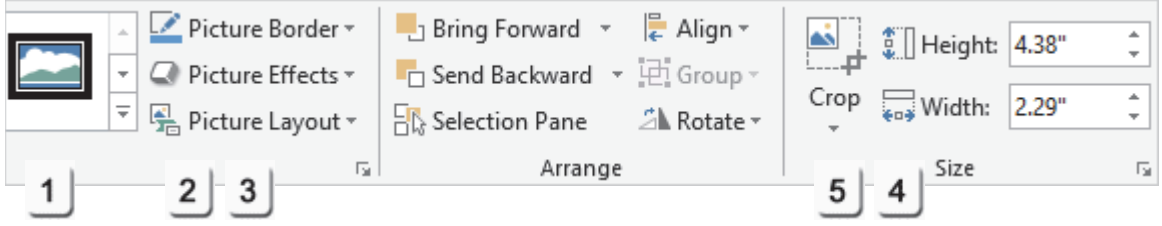
3. Assessment

Review the Test Yourself questions on page 166

Picture Tools->Format



Picture Tools->Format



Menu Maps

This lesson introduces the Picture Tools Ribbon.

1. Picture Tools->Format->Picture Styles, page 147
2. Picture Tools->Format->Picture Styles->Picture Effects, page 148
3. Picture Tools->Format->Picture Styles->Picture Border, page 149
4. Picture Tools->Format->Size, page 150
5. Picture Tools->Format->Size->Crop, page 151
6. Picture Tools->Format->Adjust->Corrections, page 153
7. Picture Tools->Format->Adjust->Color, page 155
8. Picture Tools->Format->Adjust->Artistic Effects, page 157
9. Picture Tools->Format->Adjust->Compress Pictures, page 159

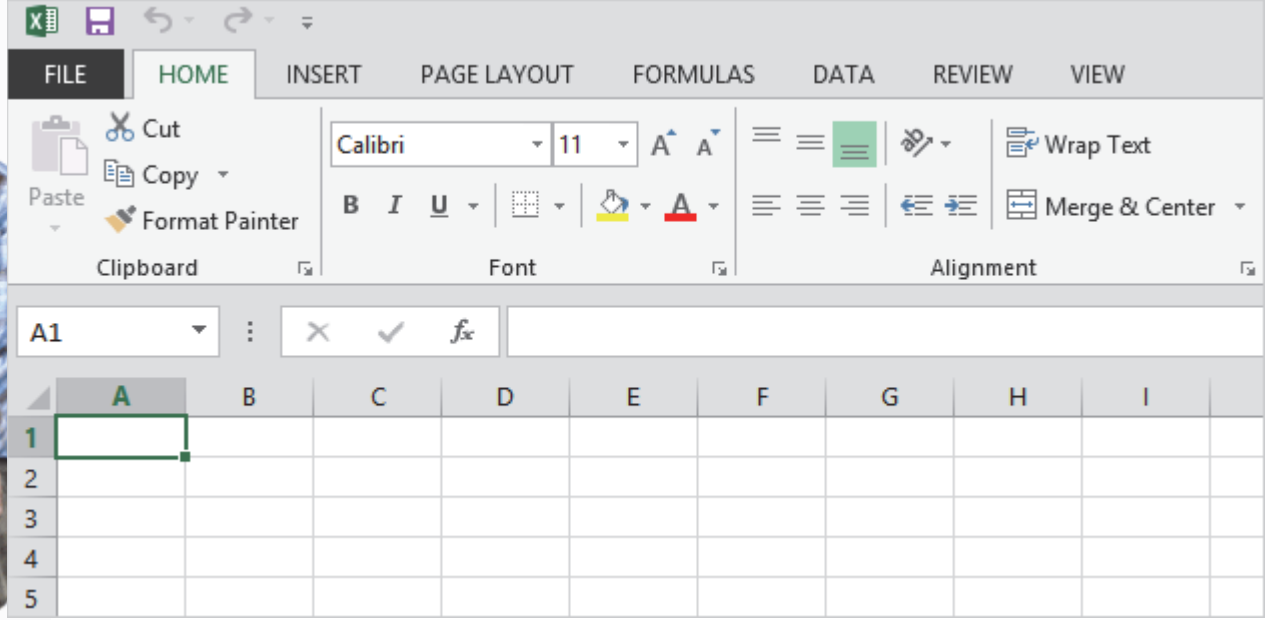


Picture This!

It is interesting to note that people think in pictures as well as in words and numbers. For some, thinking in pictures is how they understand what the data, or math, means. This lesson introduces how to add pictures to your spreadsheets. These pages also introduce the options available in the Picture Tools. As you walk through the lessons and learn the options, consider how you can use graphics to picture your data.

Go ahead—Start Microsoft Excel. When the Welcome screen appears, select a new, blank workbook.
What do you see from the top of the screen? Is there a **Home** Ribbon? And the **Insert**, **Page Layout, Formulas, Data. Review and View** Ribbons as well? Yes. Then you are ready to get started.





Getting Started

Enter some sample data:
Cell A1: Charlotte's Website
Cell A2: Products
Cell A3: Apples
Cell A4: Gift Card
Cell A5: Basket
Cell A6: Bow
Cell A7: Box

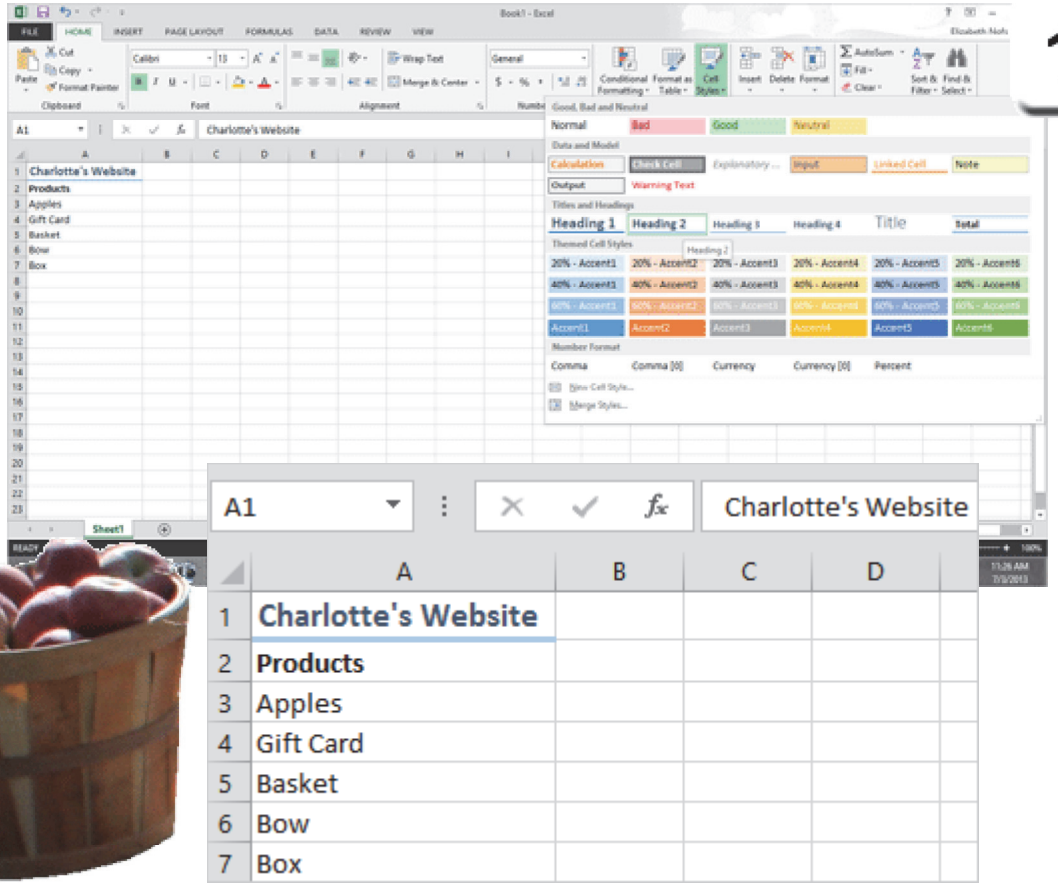
1. Try it: Format the Cell Style
Select Cell A1: Charlotte's Website.
Go to **Home->Styles->Cell Styles**.
Select a Cell Style: **Heading 2**.

Select Cell A2: Products.
Go to **Home->Font->Bold**.

Resize Column A to fit the text.

Keep going...

Home->Styles->Cell Styles



Insert a Picture

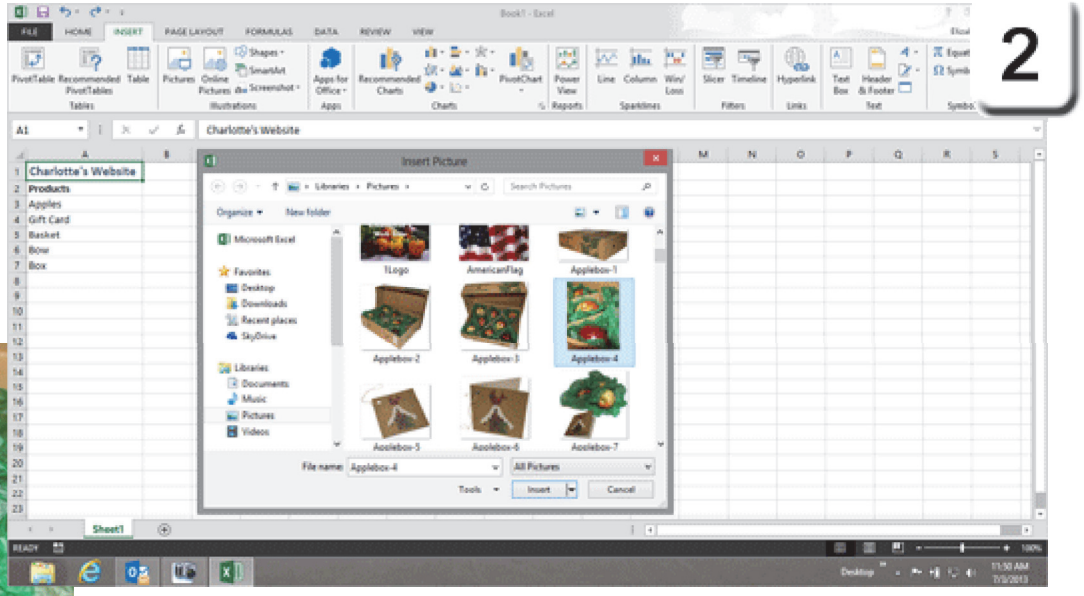
2. Try it: Insert a Picture

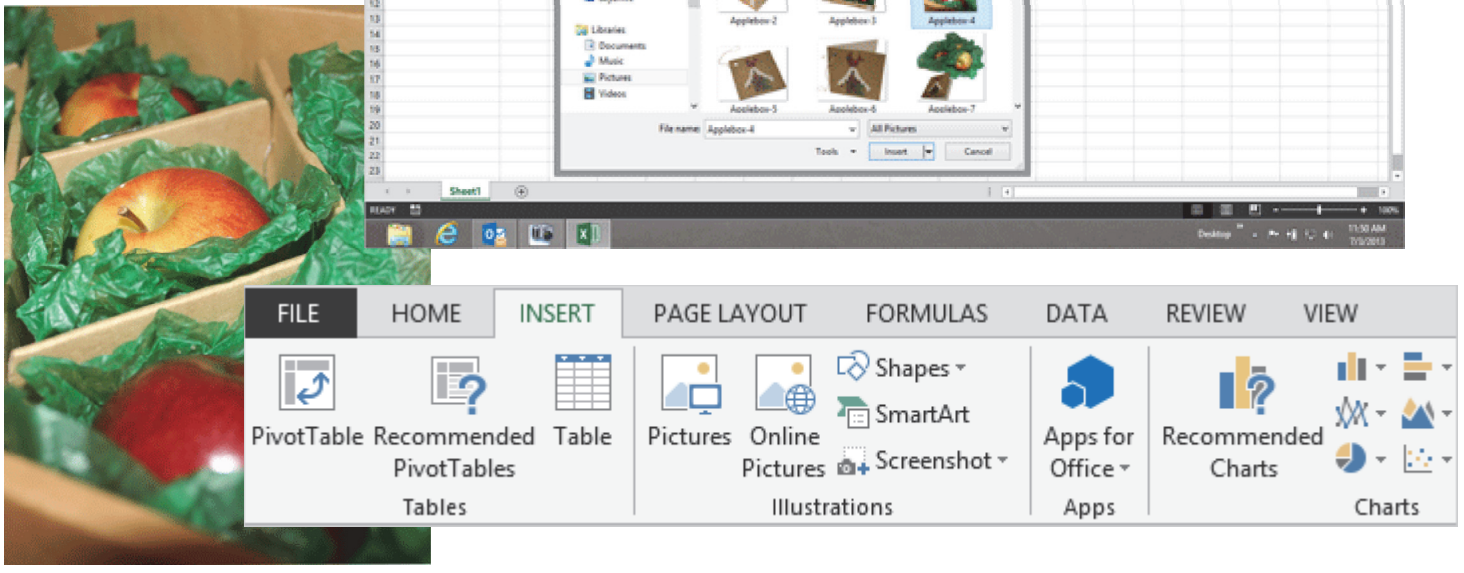
Go to **Insert->Illustrations->Pictures.**

By default, Microsoft Excel looks for pictures in the Pictures Library. The screenshot on this page uses a sample picture called Applebox-4 which is available online. You can use your own picture if you wish.

Keep going...

Insert->Illustrations->Pictures





Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Insert Images

Hello, Picture Tools

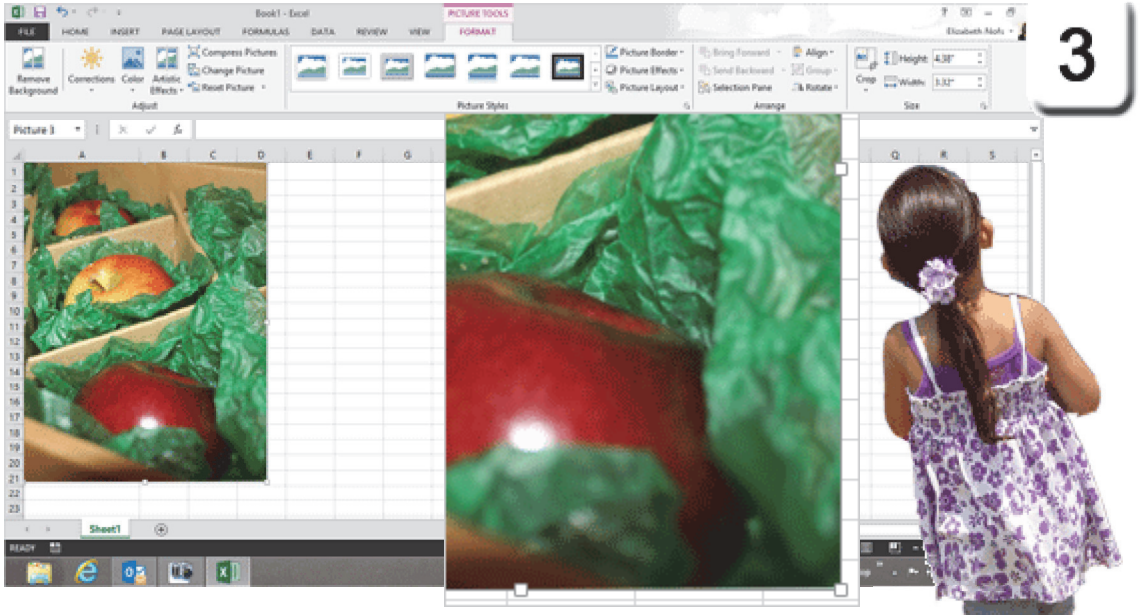
3. What Do You See? When a picture is selected, you will see a **Picture Frame** with **Handles** in the corners and sides. You should also see the **Picture Tools**.

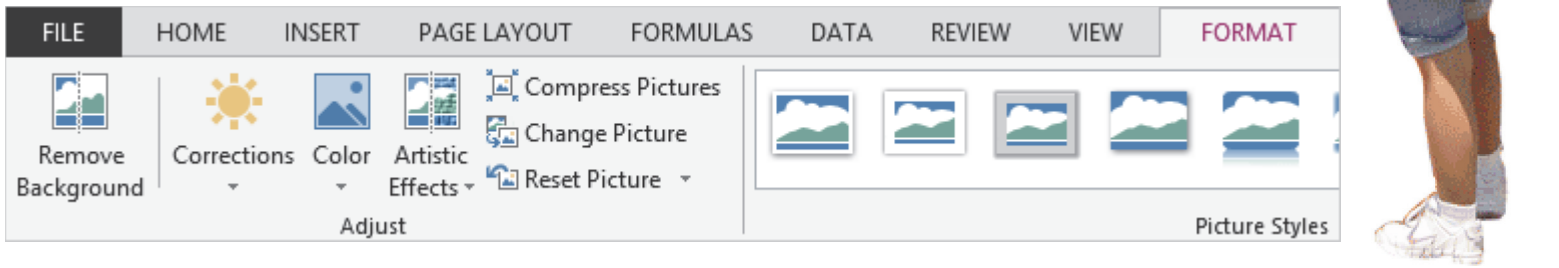
Microsoft Excel has an impressive set of **Picture Tools**. The following pages will show the formatting options.

If the picture covers the labels and data, please drag and drop it someplace in the middle of the spreadsheet, OK? Keep going...

Memo to Self: The Picture Tools are available when you select a picture. When you select a different Cell, the Picture Tools are closed.

Picture Tools->Format





Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Format Images

Format the Picture Style

Picture Styles apply sophisticated formatting to the picture shape, border, effect and layout. The Styles include shadows and reflections, as well.

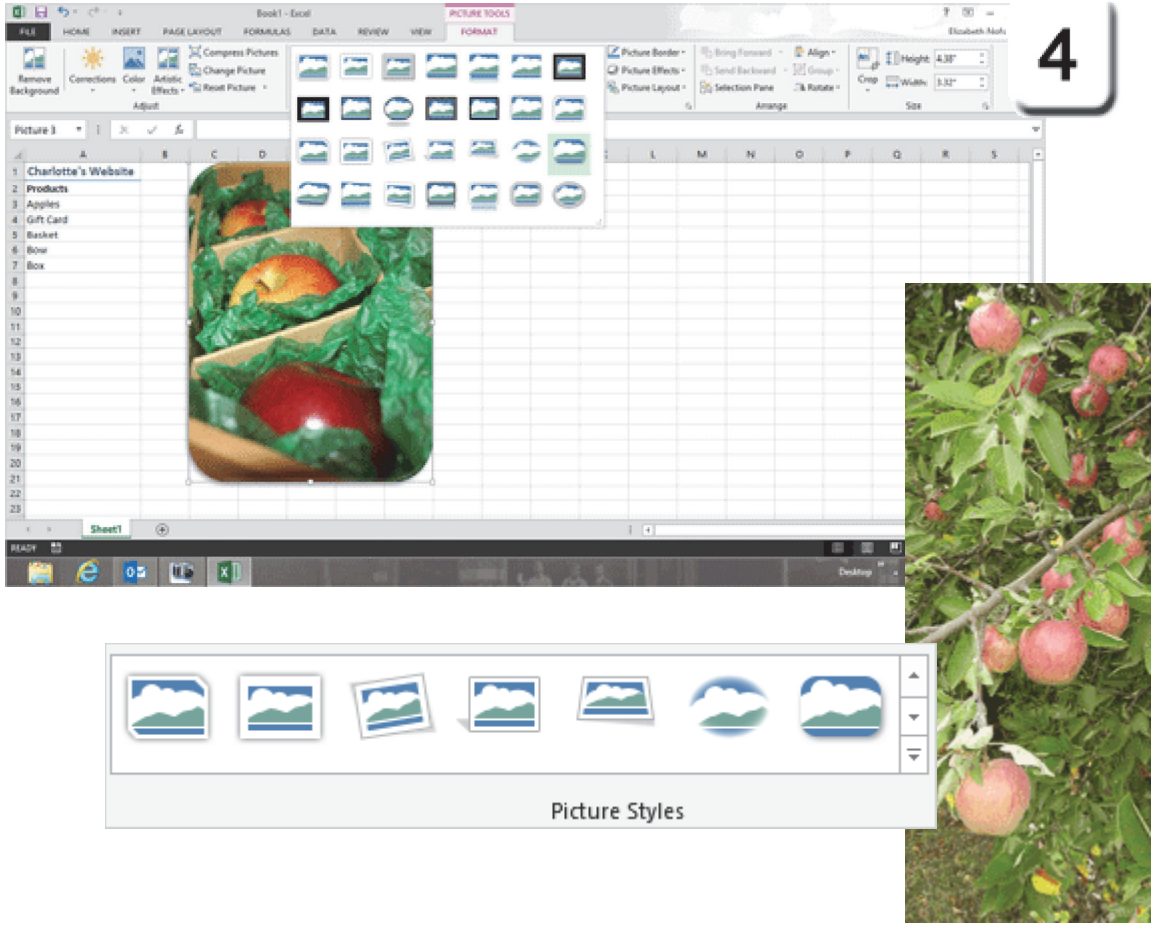
Before You Begin: Select the picture, first. The **Picture Tools** should be available.

4. Try This: Format the Picture Style
Go to **Picture Tools->Format->Picture Styles**.

Choose a Picture Style: Microsoft Excel will apply the Style in a Live Preview as you run your mouse over the options in the gallery.

Memo to Self: You can display **More Picture Styles** by clicking on the down arrow in the bottom right corner.

Picture Tools->Format->Picture Styles



More Picture Effects

The Styles in the Picture Style gallery were created with **Picture Effects**. Each Style combines several effects together.

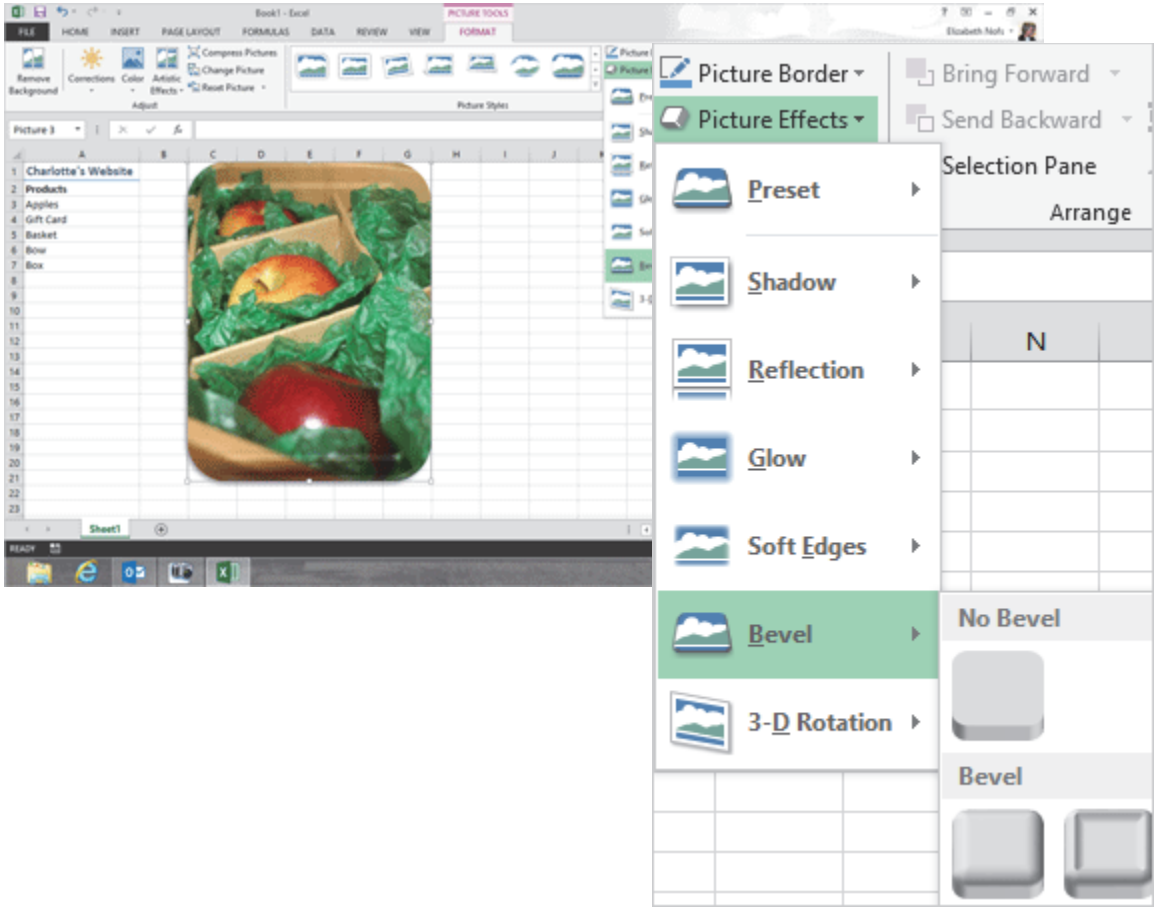
Let's review the Picture Effects.

Before You Begin: Select the picture, first. **The Picture Tools** should be available.

Try it: Format the Picture Effects
Go to **Picture Tools->Format**.
Go to **Picture Styles->** Go to **Picture Effects**
Click on **Bevel**.

What Do You See? You can use the **Picture Effects** to add one or more of the following:
Preset
Shadow
Reflection
Glow
Soft Edges
Bevel
3-D Rotation

Picture Tools->Format->Picture Styles-> Picture Effects->Bevel



Format the Picture Borders

The **Picture Border** has several options you can format including weight, style and color.

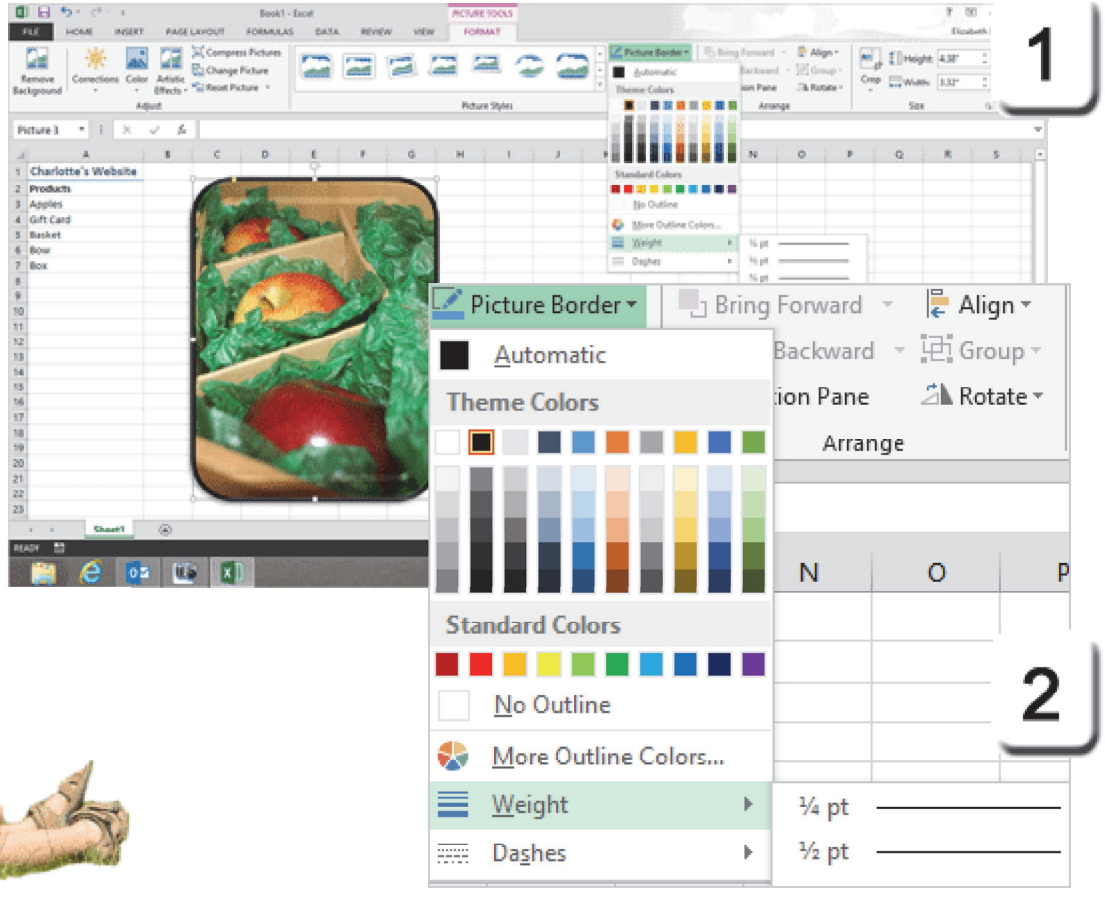
1. Try it: Format the Picture Border
Select the picture, first.
Go to **Picture Tools->Format.**
Go to **Picture Styles->Picture Border.**

2. Preview the Picture Borders
The Picture Borders can be formatted with the Theme Colors as well as the Standard Colors.

The Weight and Dashes menus have a short list of formats. There are **More options** at the bottom of each menu.



Picture Tools->Format->Picture Styles-> Picture Border

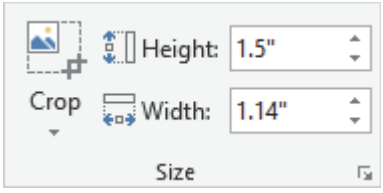


Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Add Borders to Objects

Format the Picture Size

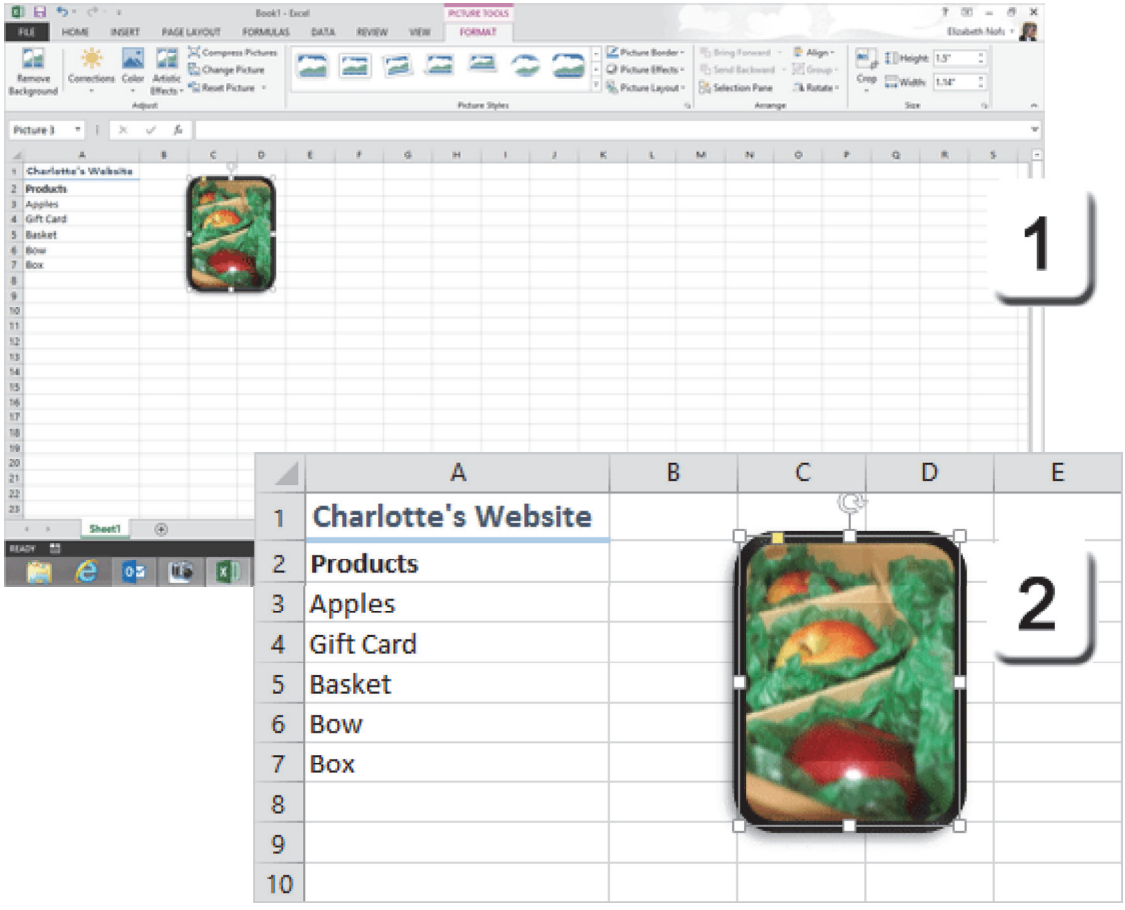
You can change the size of any picture by dragging the picture handles. There is also a more precise method for formatting the **Picture Size**. Here are the options.

1. Try This: Format the Picture Size
Select the picture, first.
Go to **Picture Tools->Format.**
Go to **Size**.
Edit the **Height**: 1.5



2. What Do You See? In the example on this page, the picture is 1.5" in height. As you edit the height Microsoft Excel will automatically resize the width proportionally.

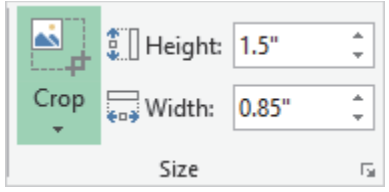
Picture Tools->Format->Size



Crop the Picture

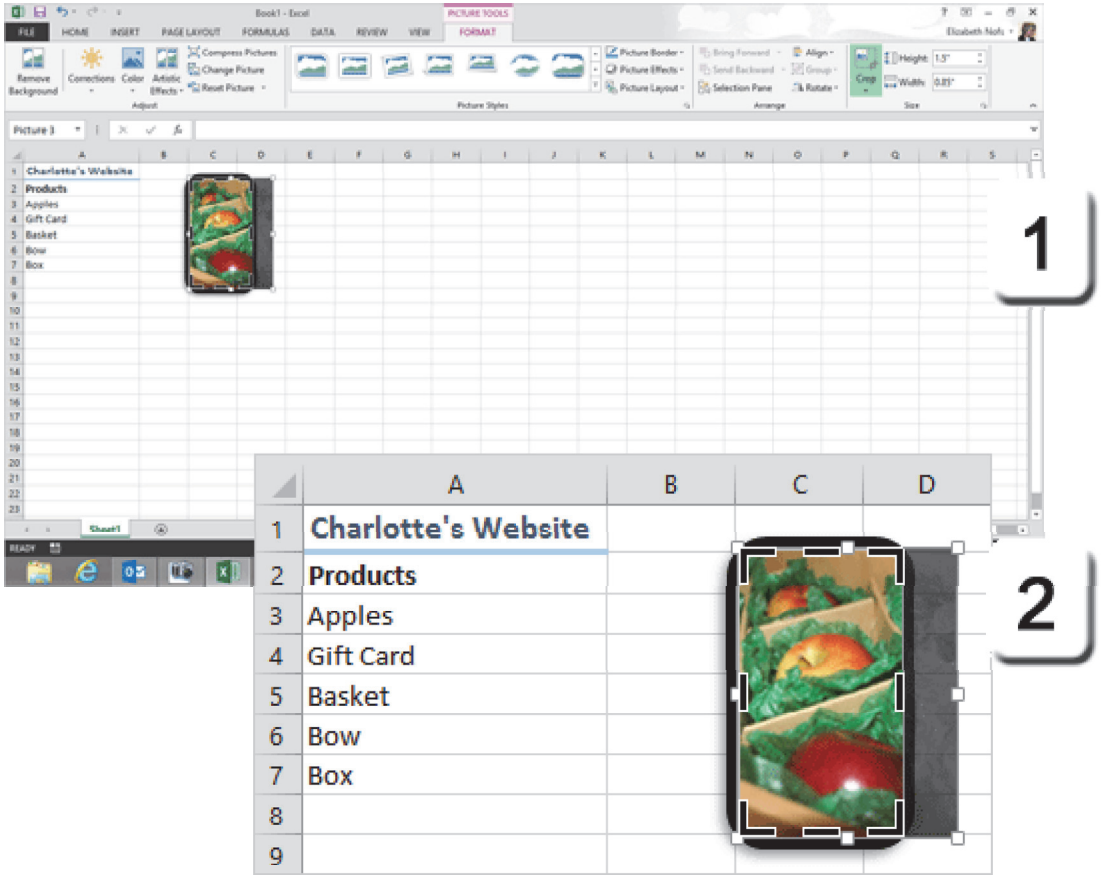
You can **Crop** (cut) the sides of a picture to create a more focused message. Often, a picture can be quite stunning when you cut away everything but the key product or person.

1. Try This: Crop the Picture
Select the picture, first.
Go to **Picture Tools->Format->Size.**
Click on **Crop**.



2. What Do You See? In this example the picture is framed by thick, black **Crop Marks**. You can select the Crop Marks with your mouse and cut the top, bottom and sides off the picture.

Picture Tools->Format->Size->Crop



Crop to Shape

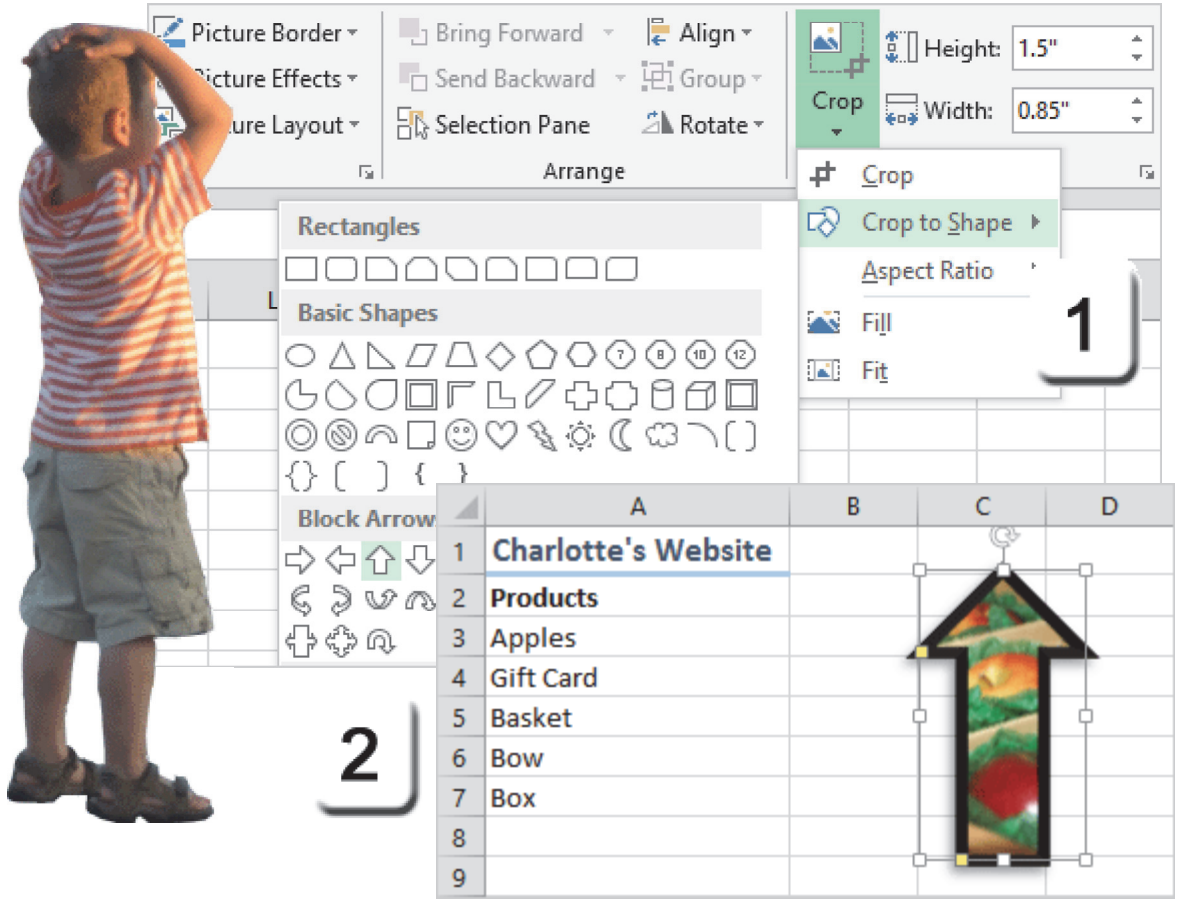
Many of the buttons have additional options when you click on the bottom half of the icon. The Crop button has a very playful option called **Crop to Shape**.

1. Try This: Crop to Shape
Please select the picture, first.
Go to **Picture Tools->Format->Size.**
Go to **Crop->Crop to Shape**
Select a **Block Arrow.**

2. What Do You See? In the example on this page, the picture has been cropped into the shape of an "Up" arrow.

What Else Did You Notice? When you cropped the picture, Microsoft Excel reformatted the Picture Border and Picture Effects automatically.

Picture Tools->Format->Size->Crop->Crop to Shape



Picture Corrections

Say you wanted to add a picture of your products, perhaps a picture of your office. Some pictures look dark when they are printed. You can use the Picture Tools to make Adjustments and Corrections.

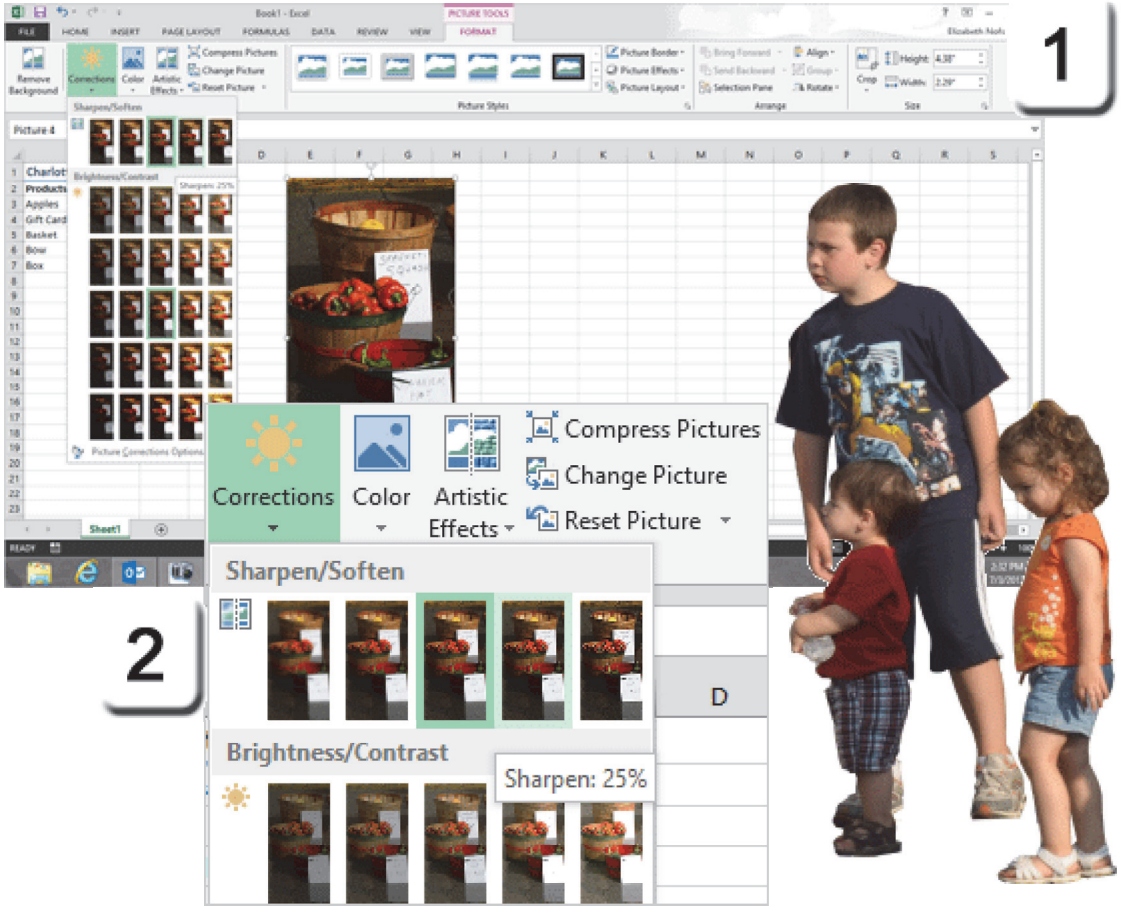
Before You Begin: You can add another picture if you wish. The screenshot on this page shows business35.gif.

1. Try This: Make Picture Corrections
Select the picture, first.
Go to **Picture Tools->Format**.
Go to **Adjust->Corrections.**

2. What Do You See? You can **Sharpen and Soften** the edges in a picture. The **Brightness and Contrast** adjust the Brightness (the amount of light) and the Contrast (the difference between absolute white and absolute black.)

Each little square shows a different percentage of **Sharpness** or **Brightness and Contrast**.

Picture Tools->Format->Adjust->Corrections

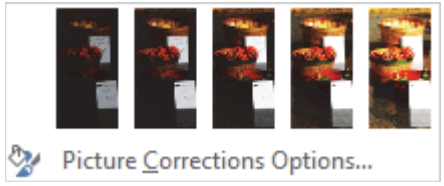


Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Modify Object Properties (Adjust Picture Corrections)

More Picture Corrections

The Picture **Corrections** offer many preset ratios of Brightness and Contrast. You can make manual adjustments if you wish.

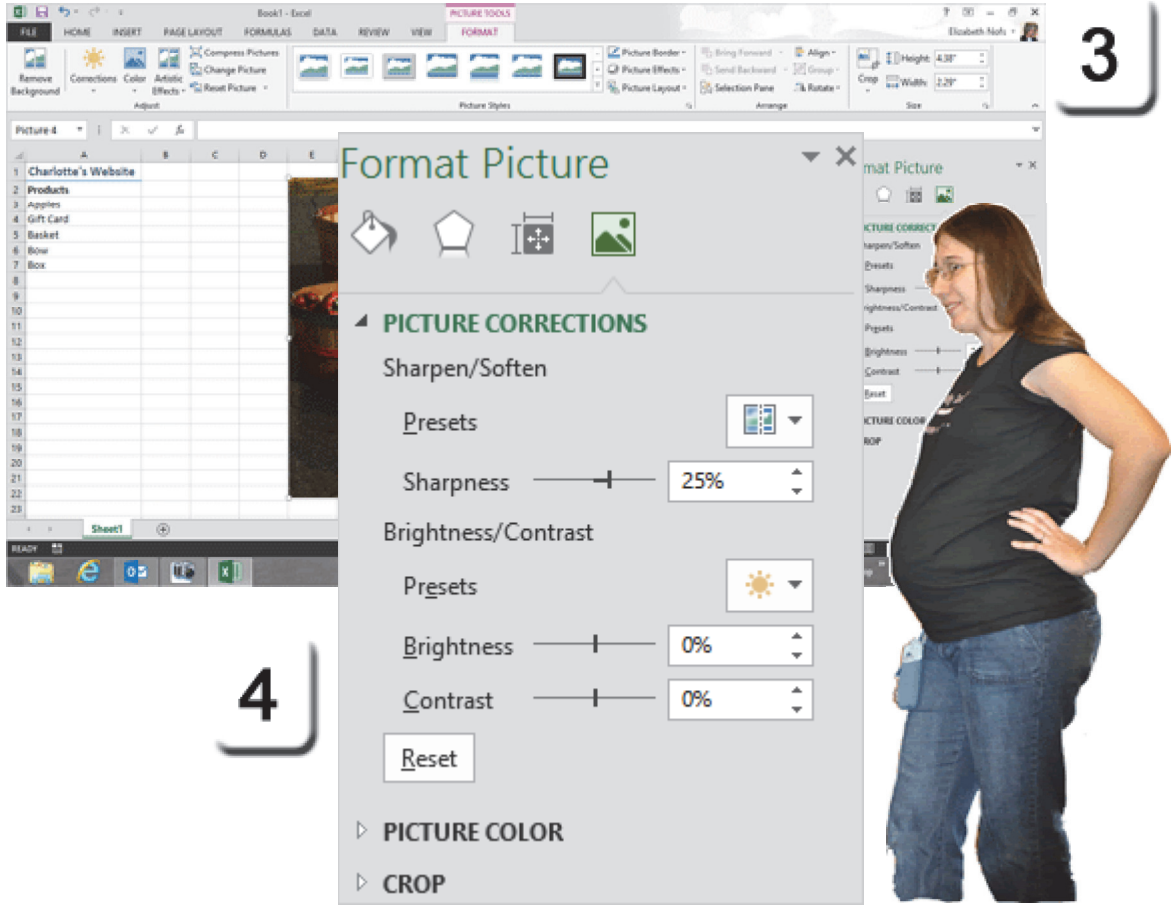
3. Try it: Adjust the Brightness and Contrast
Select the picture, first.
Go to **Picture Tools->Format.**
Go to **Adjust->Corrections.**
Click on **Picture Correction Options.**



4. What Do You See? The formatting options should be available on the right side. The **Picture Corrections** include **Presets** as well as manual adjustments. You can edit the Sharpness, Brightness and Contrast with the slider bar or by typing a percent.

Use the little X in the upper right corner to **Close** the Picture options.

Picture Tools->Format->Adjust->Corrections->Picture Correction Options



Adjust the Picture Color

Color is an important consideration when you are working with your company and product images. The **Color Tone** (hot or cold) and **Saturation** definitely change the mood and marketing message.

1. Try it: Adjust the Picture Color
Select the picture first, please.
Go to **Picture Tools->Format.**
Go to **Adjust->Color.**

2. What Do You See? The **Color** options are:

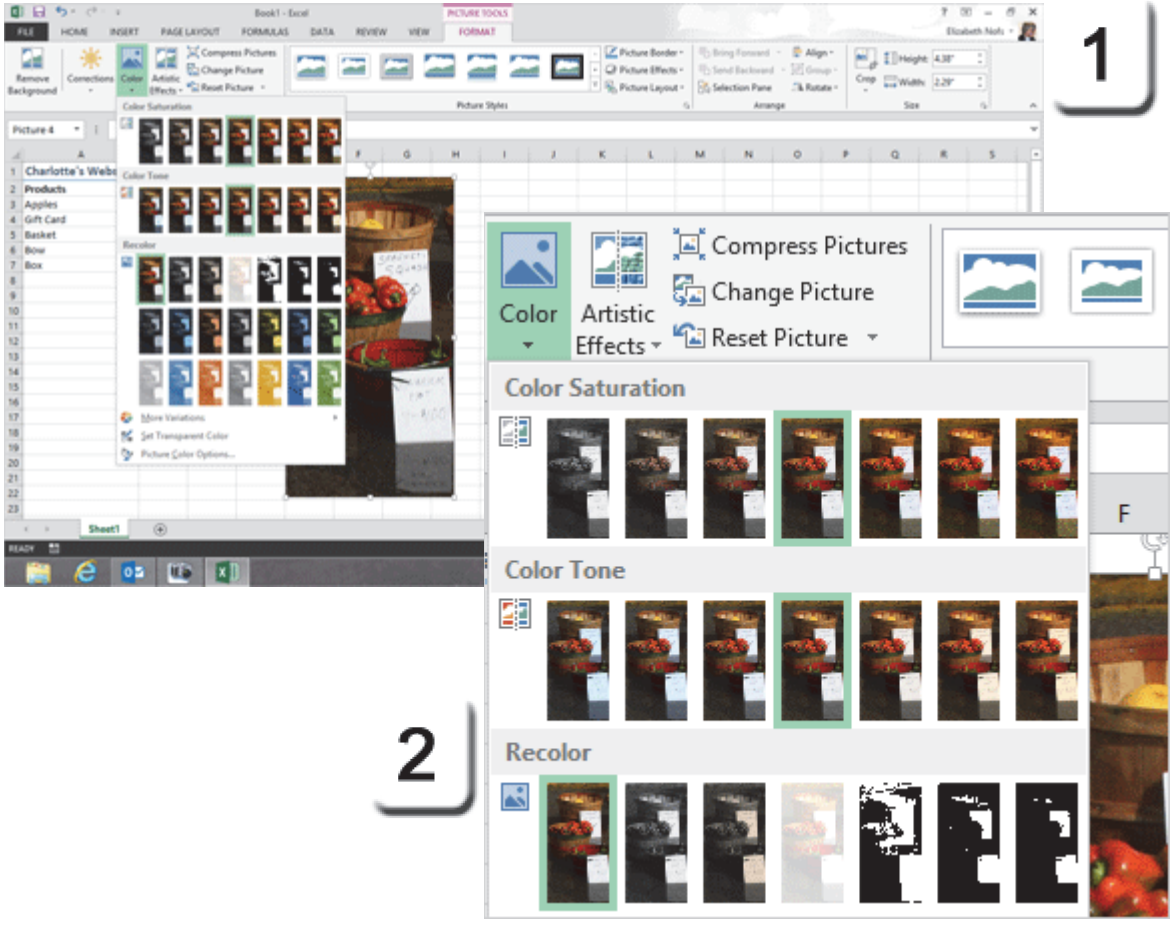
Color Saturation infuses the image with more or less color.

Color Tone works with yellow and blue filters to warm or cool an image. **Color Tone** corrects the yellowing that can occur with indoor lighting.

Recolor applies a tint to an images, such as the Ode Time sepia brown pictures.

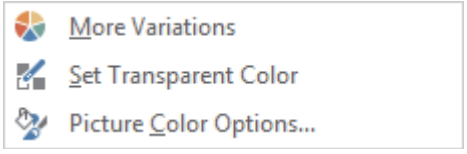
Keep going....

Picture Tools->Format->Adjust->Color



More Color Adjustments

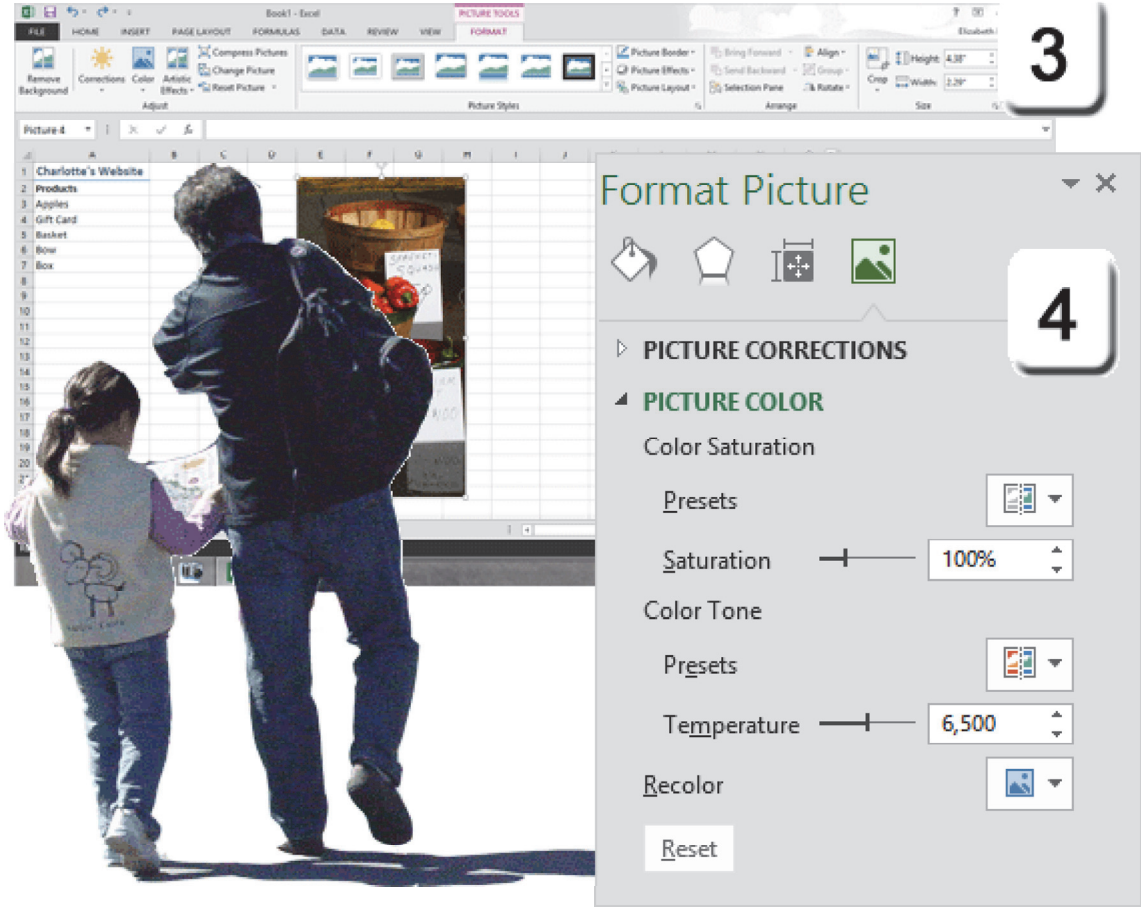
3. Try it: Adjust the Color by Hand
Select the picture, first.
Go to **Picture Tools->Format.**
Go to **Adjust->Color.**
Click on **Picture Color Options.**



4. What Do You See? The **Format Picture** options should be available on the right. **Picture Color** lets you edit **Saturation** and **Color Tone.** You can use the slider bar to make adjustments or type a percent if you wish.

Memo to Self: There is a **Reset** button on the bottom left. This is useful to know in case the formatting turns out to be consistently ugly.

Picture Tools->Format->Adjust->Color->Picture Color Options



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Modify Object Properties (Picture Color Options)

Artistic Effects

Artistic Effects are filters you can apply to your picture. Some of the Effects include pencil, pastel, charcoal, paint brush and various textures such as glass and even plastic wrap.

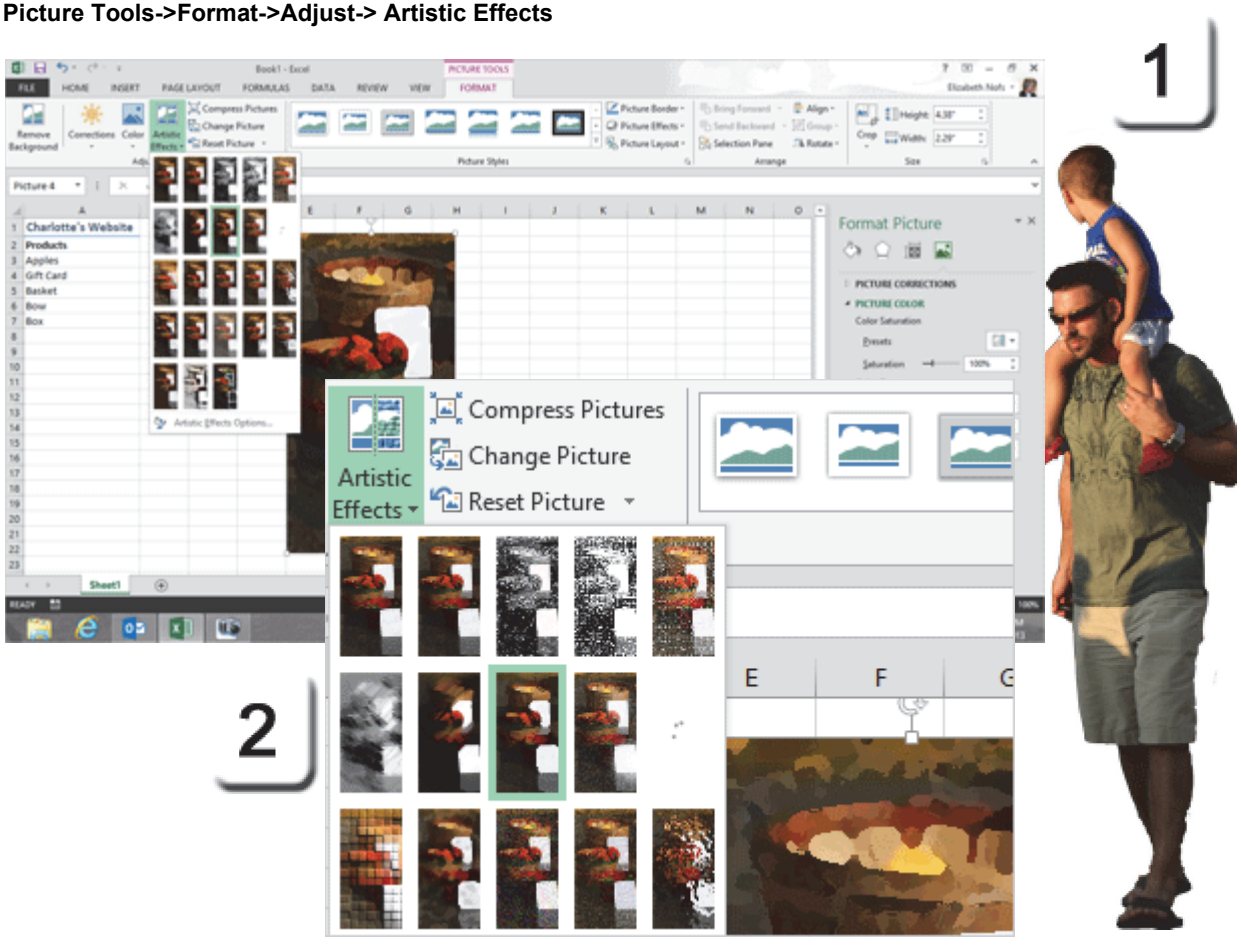
1. Try it: Use the Artistic Effects
The picture is still selected.
Go to **Picture Tools->Format.**
Go to **Adjust->Artistic Effects.**

2. What Do You See? As you run your mouse over the **Artistic Effects** you will see a Live Preview of the formatting

Select an Artistic Effect: Glow.

Keep going...

Picture Tools->Format->Adjust-> Artistic Effects

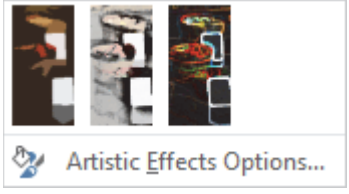


Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Modify Object Properties (Artistic Effects)

Artistic Effects Options

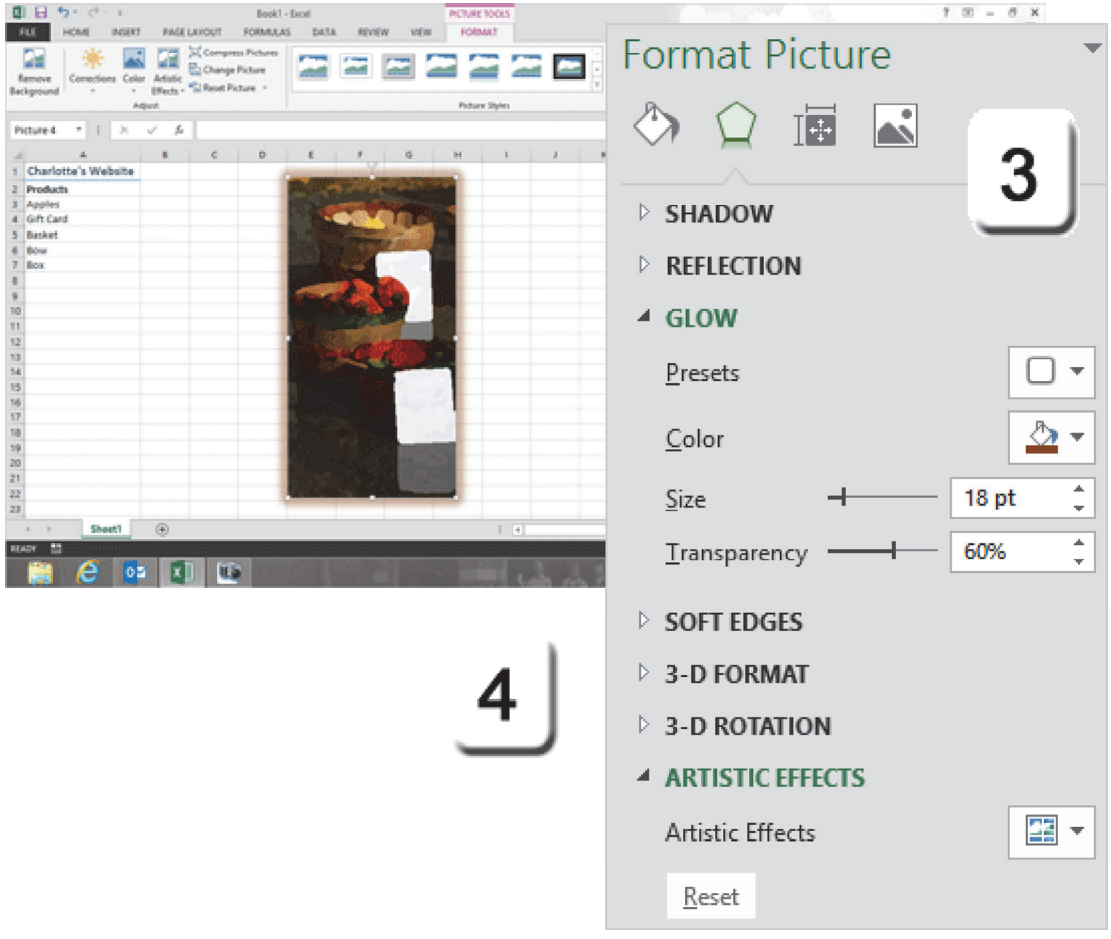
In addition to the preset Effects, you can modify the Artistic Effects by hand.

3. Try This: Edit the Artistic Effects Options.
Go to **Picture Tools->Format.**
Go to **Adjust->Artistic Effects.**
Click on **Artistic Effects Options.**



4. What Do You See? The Artistic Effects in this example, Glow, include Transparency and Size. There is a Reset button in the bottom left corner.

Picture Tools->Format->Adjust-> Artistic Effects-> Artistic Effects Options



Compress Pictures

Pictures can be quite large and rich with detail. However, you may need to compromise quality for size if you plan on sharing your spreadsheet online or by E-mail. Each picture may be 4-8 MB, so it can add up.

1. Try it: Compress the Pictures
Select the picture first, please.
Go to **Picture Tools->Format.**
Go to **Adjust->Compress Pictures.**

2. What Do You See? When you select **Compress Pictures**, you will be prompted to review the Compression options:

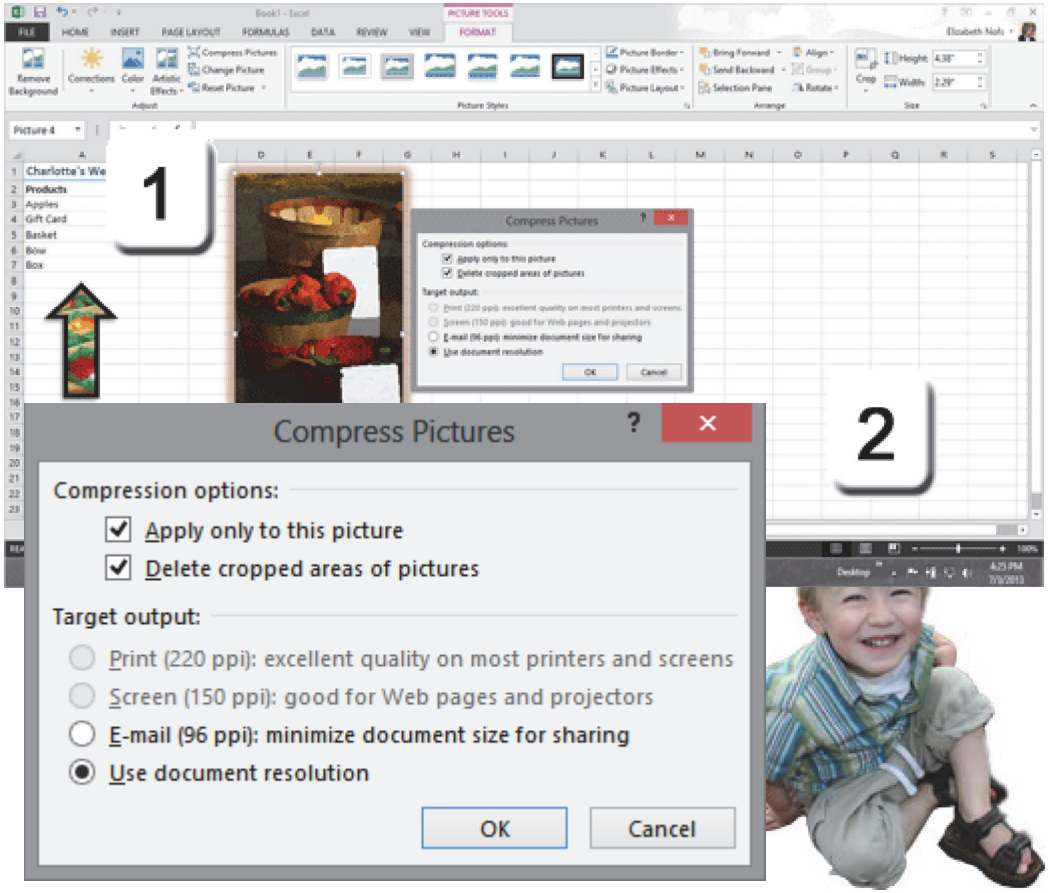
Apply only to this picture: The Compression can be applied to all pictures, or only the one selected.

Delete cropped areas of pictures: Removing the cropped sections will reduce the size.

Target output: There are different resolutions for print, screen and E-mail that you can choose.

Accept the defaults: Apply to this picture, Delete cropped areas and use document resolution.
Click **OK** to Compress the picture.

Picture Tools->Format->Adjust->Compress Pictures



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Modify Object Properties (Compress Pictures)

Change Picture

The **Adjust** group includes the option to **Change Picture.** Here are the steps.

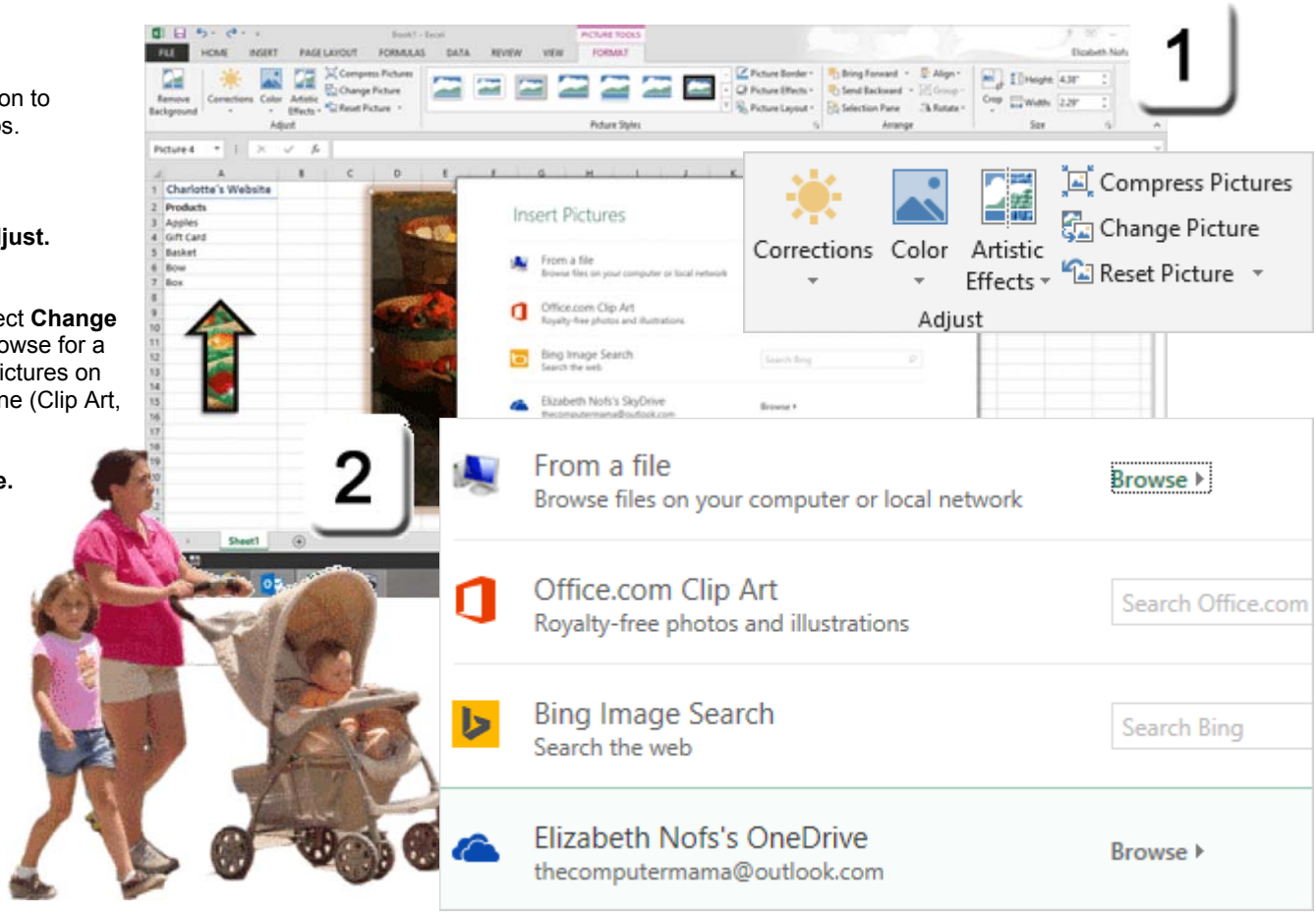
1. Try it: Change Picture
Select the picture first, please.
Go to **Picture Tools->Format->Adjust.**
Click on **Change Picture.**

What Do You See? When you select **Change Picture**, you will be prompted to browse for a different picture. You can look for pictures on your computer (From a File) or online (Clip Art, Bing Search, or your OneDrive.

2 Try It: Find a Picture From a file.
Click on **Browse**.
Go to your Documents folder.
Choose another picture.
Click Insert.

Keep going...

Picture Tools->Format->Adjust-> Change Picture



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Modify Object Properties (Change Picture)

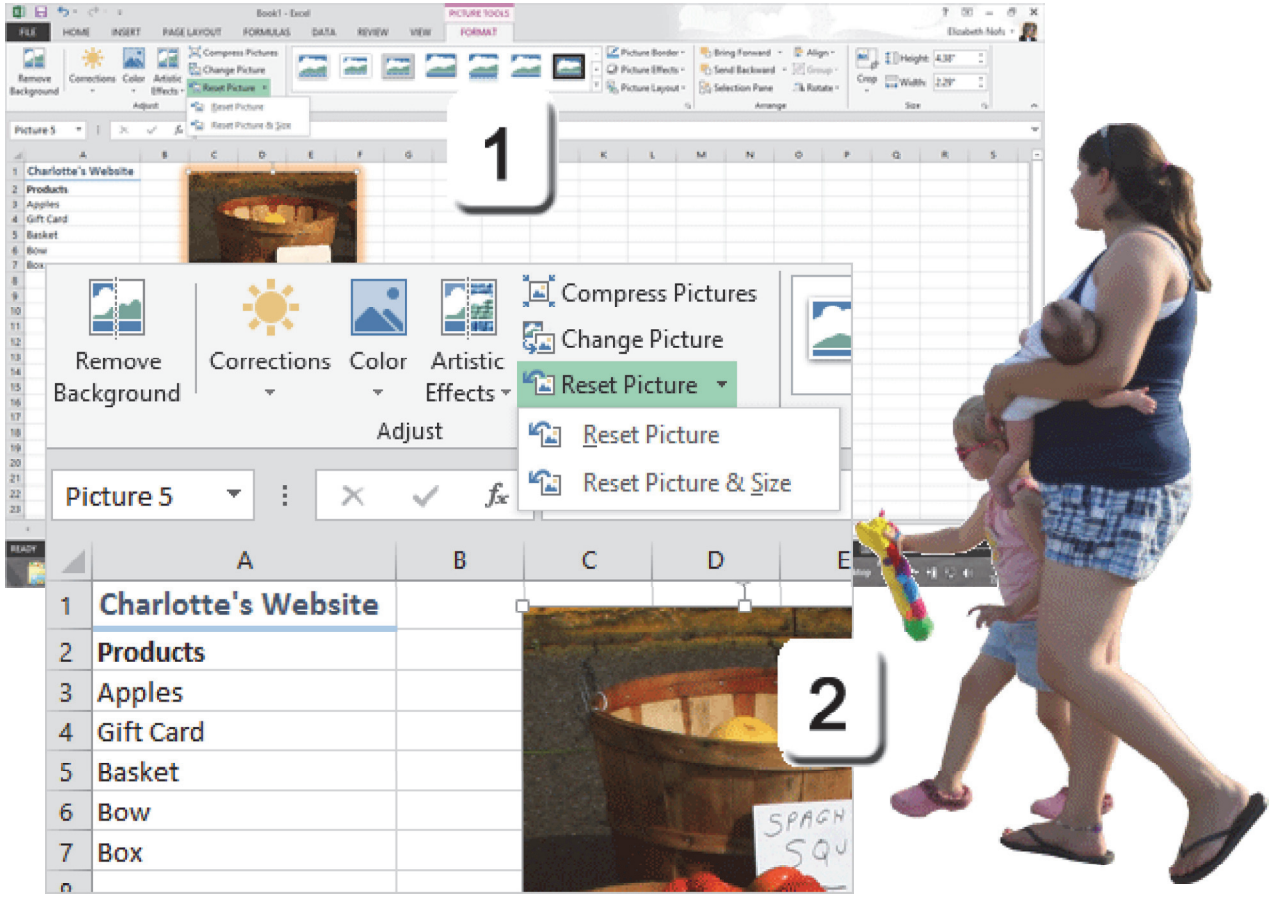
Reset the Picture

Say you tried several picture formats and styles. You can **Reset** the picture back to the original image if you wish. Here are the steps.

1. Try it: Change Picture
Select the picture first. You will see the **Picture Tools.**
Go to **Format->Adjust.**
Click on the option arrow to the right of **Reset Picture.**

2. What Do You See?
There are two options:
Reset Picture
Reset Picture & Size

Picture Tools->Format->Adjust->Reset Picture



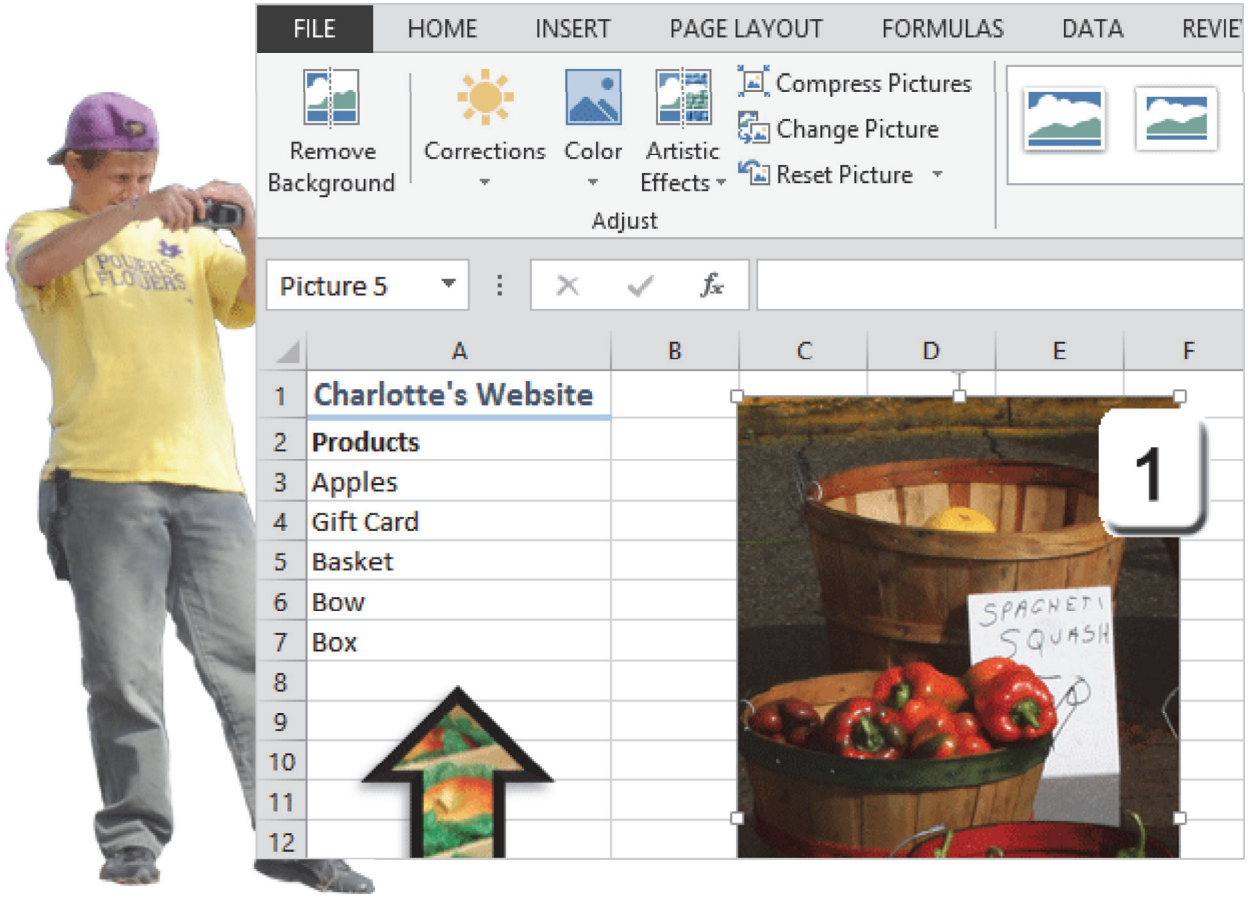
Remove Background

There is a new tool for selecting and deleting the background. The example on this page has a complex background with different shades of brown and gray. You can try this with your own picture if you wish.

1. Try it: Remove Background
Select the picture first.
Go to **Picture Tools->Format->Adjust.**
Click on **Remove Background.**

Keep going...

Picture Tools->Format->Adjust-> Remove Background



The Background Tool

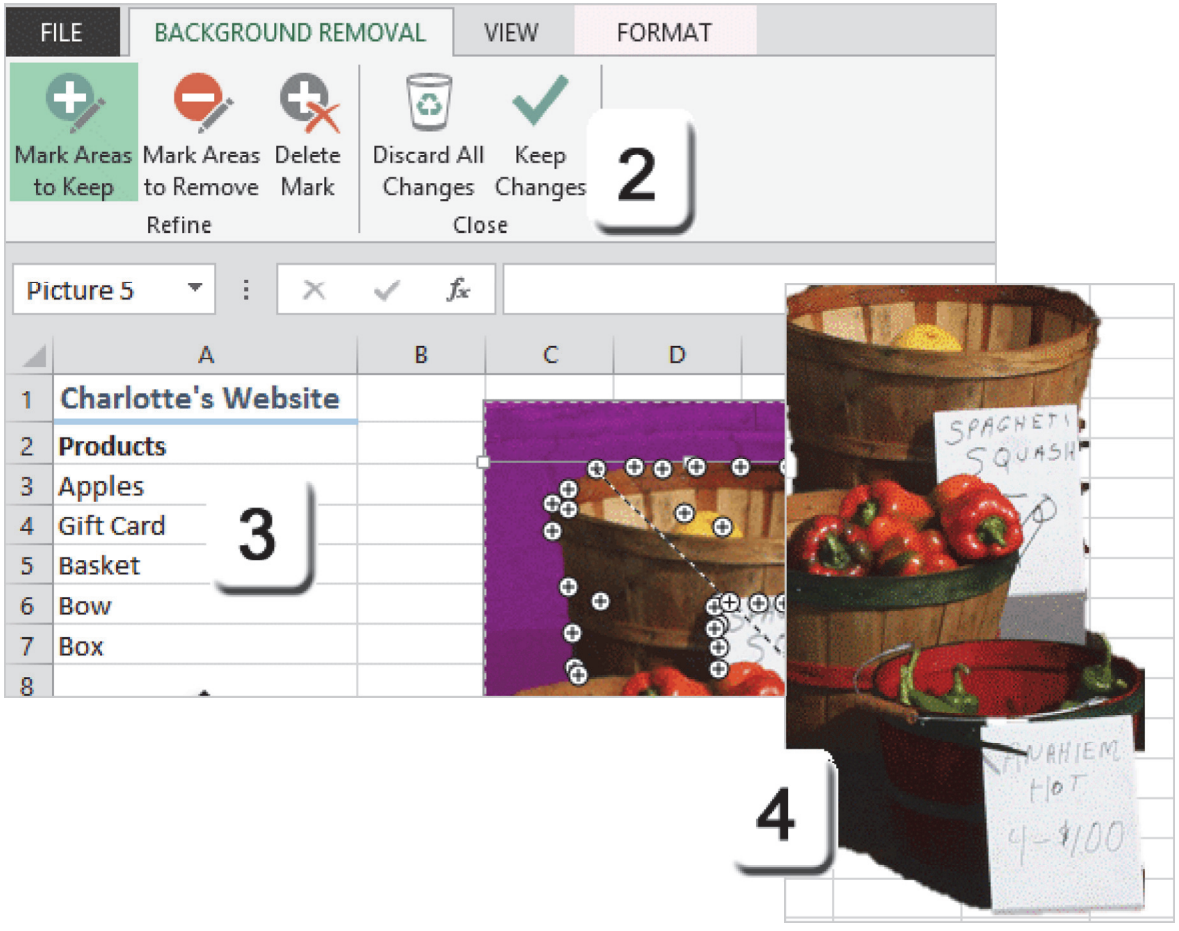
2. Mark the Areas
The **Background Removal** Tool makes a reasonable estimate of the **Areas** in the picture.

3. Edit the Marks
The **Areas** that are marked for removal are shown with a pink mask. You can **Mark the Areas** you want to Keep or Remove.

4. Keep the Changes
When you click **Keep Changes**, you should see your picture without the background. You can edit the Marked Areas.

Click **Remove Background,** again. Your background marks will still be there if you want to add or remove some Areas.

Picture Tools->Format->Adjust->Remove Background

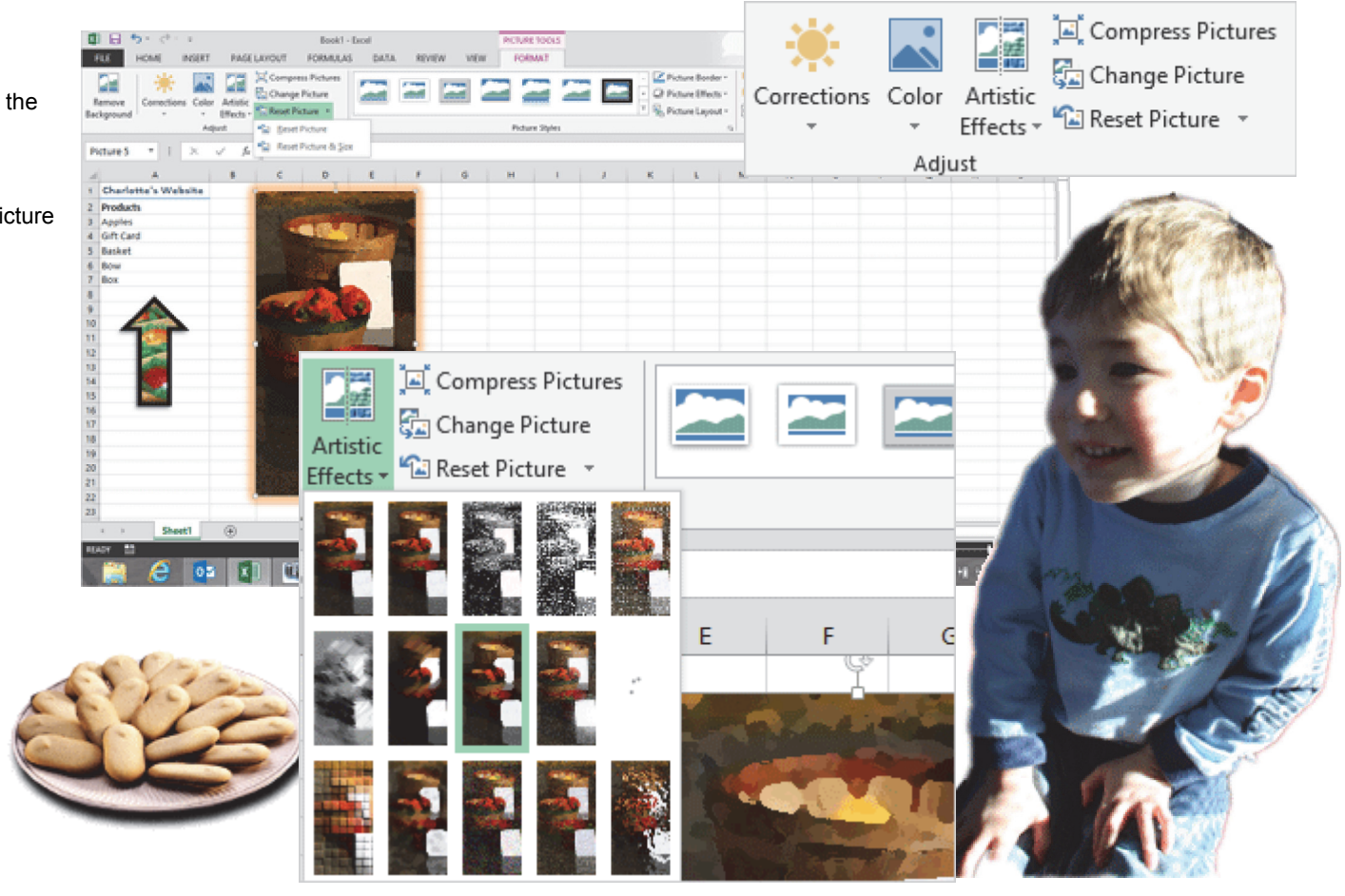


Summary

This lesson demonstrated the options available with the **Picture Tools**.

The formatting included Picture Styles, Corrections and Adjustments.

OK, OK. Get a cookie.
You done good.



Practice Activities

Lesson 6: Picture the Data

Before You Begin: Start Microsoft Excel. Please open a new, blank spreadsheet.



Try This: Do the following steps

1. Insert the photo Farm.gif (or a photo from your computer) into your spreadsheet.
2. Apply Picture Style Soft Edge Oval.
3. Apply the artistic effect Paint Brush.
4. Insert the photo Applebox 5.gif (or a photo from your computer) into your spreadsheet.
5. Apply the Picture Effect Bevel: Circle.
6. Apply the 3D Rotation Off Axis 1 Top.
7. Recolor the picture: Select a Theme Color and Accent Color of your choice.
8. Reset the picture to original.
9. Crop to Shape with the Moon shape.
10. Adjust the Brightness to be Brightness +40% Contrast +40%.
11. Use the Change Picture command and select Business 35.gif (or a photo from your computer) into your spreadsheet.
12. Format the picture size to be 1.5 inches wide.
13. Apply a Dash border to the picture.

Save your work as Beginning Excel Practice Activity 3.

Test Yourself

1. How are the Picture Tools Ribbons accessed?
a. View-> Picture Tools
b. Insert-> Picture Tools
c. Select a picture
Tip: Beginning Excel, page 146

2. Which of the following is a picture effect? (Select all correct answers.)
a. Shadow
b. Reflection
c. Glow
d. Bevel
Tip: Beginning Excel, page 148

3. Which of the following options are available for Picture Border? (Select all correct answers.)
a. Weight
b. Style
c. Color
Tip: Beginning Excel, page 149

4. How do you resize a picture? (Select all correct answers.)
a. Drag the handles on the picture
b. Use the Picture Size command
c. Go to Picture Tools-> Format-> Size
Tip: Beginning Excel, page 150

5. Which of the following can be adjusted? (Select all correct answers.)
a. Picture Color Tone
b. Brightness
c. Contrast
d. Sharpen
e. Soften
Tip: Beginning Excel, page 153, 154, 155

6. Which of the following is an artistic effect? (Select all correct answers.)
a. Pencil
b. Pastel
c. Charcoal
d. Paint brush
Tip: Beginning Excel, page 157

7. What Ribbon has the Picture Styles?
a. Picture Tools
b. Picture Tools-> Format
c. Picture Tools-> Styles
d. Picture Tools-> Design
Tip: Beginning Excel, page 147

8. Which is true about cropping a picture? (Select all correct answers.)
a. It is used to cut away unwanted parts off the picture
b. It can be done by dragging the crop marks
c. A picture can be cropped to a predefined shape, such as an arrow
Tip: Beginning Excel, page 151

9. A picture can be reset back to the original image.
a. True
b. False
Tip: Beginning Excel, page 161

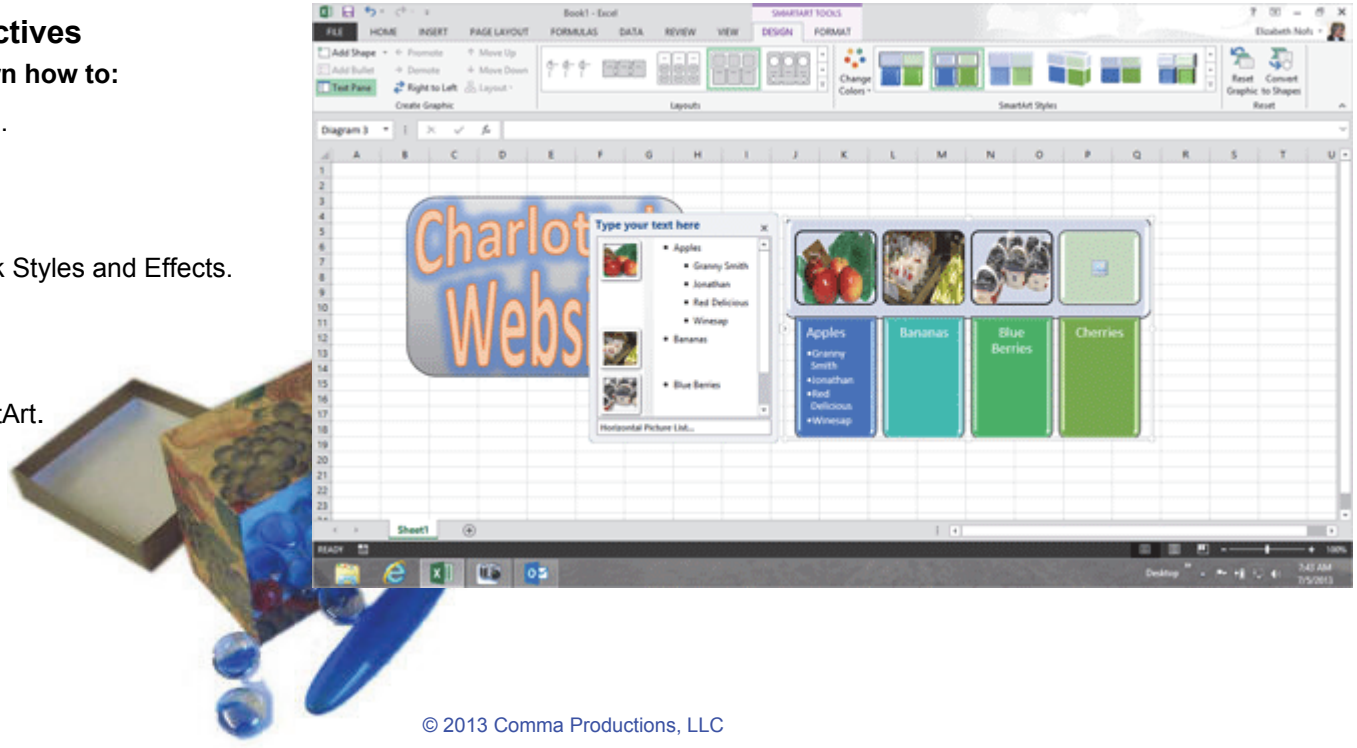


Shapes, SmartArt and Spreadsheet Views

Beginning Excel Objectives

In this lesson, you will learn how to:

1. Insert and Format Shapes.
2. Add Text to Shapes.
2. Edit the Text Direction.
3. Format Shapes with Quick Styles and Effects.
4. Create linked Text Boxes.
5. Use SmartArt.
6. Format and edit the SmartArt.



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Lesson 7: SmartArt and Graphics

1. Readings

Read Lesson 7 in the Beginning Excel guide, page 167-212.

Project

A practice spreadsheet with SmartArt graphics that you do not have to save.

Downloads

Checkbook 2013.xlsx (Completed)
Charlotte's Prices.xlsx (Completed)
Beginning Excel Charts-2013.xlsx

Graphic files used in the lesson:
Logo.jpg, Farm.gif,

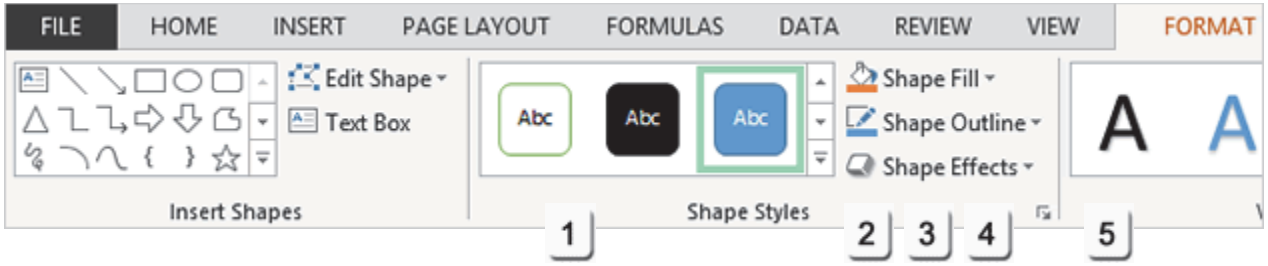
2. Practice

Complete the Practice Activity, page 213.

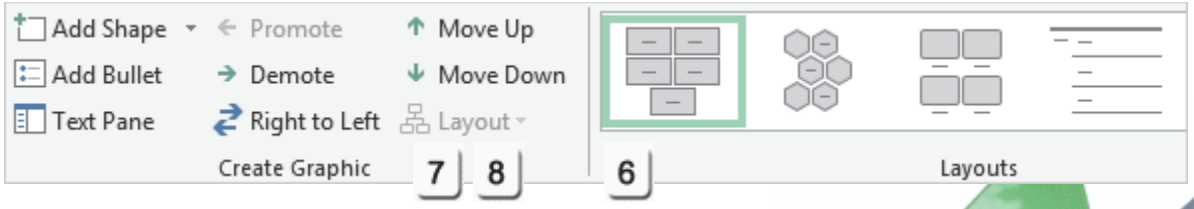
3. Assessment

Review the Test questions, page 214.

Drawing Tools->Format



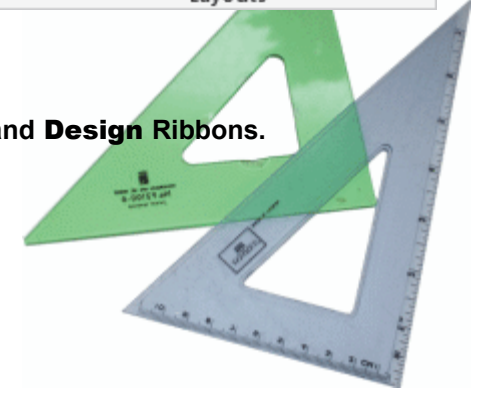
SmartArt Tools->Design



Menu Maps

This lesson shows the Drawing and SmartArt Format and Design Ribbons.

1. Drawing Tools-> Format->Shape Style, page 171
2. Drawing Tools-> Format->Shape Fill, page 172
3. Drawing Tools-> Format->Shape Outline, page 173
4. Drawing Tools-> Format->Shape Effects, page 174
5. SmartArt Tools -> Design-> Change Colors, page 183
6. SmartArt Tools -> Design-> Layouts, page 184
7. SmartArt Tools -> Design-> Add Shape, page 186
8. SmartArt Tools -> Design-> Demote, page 187

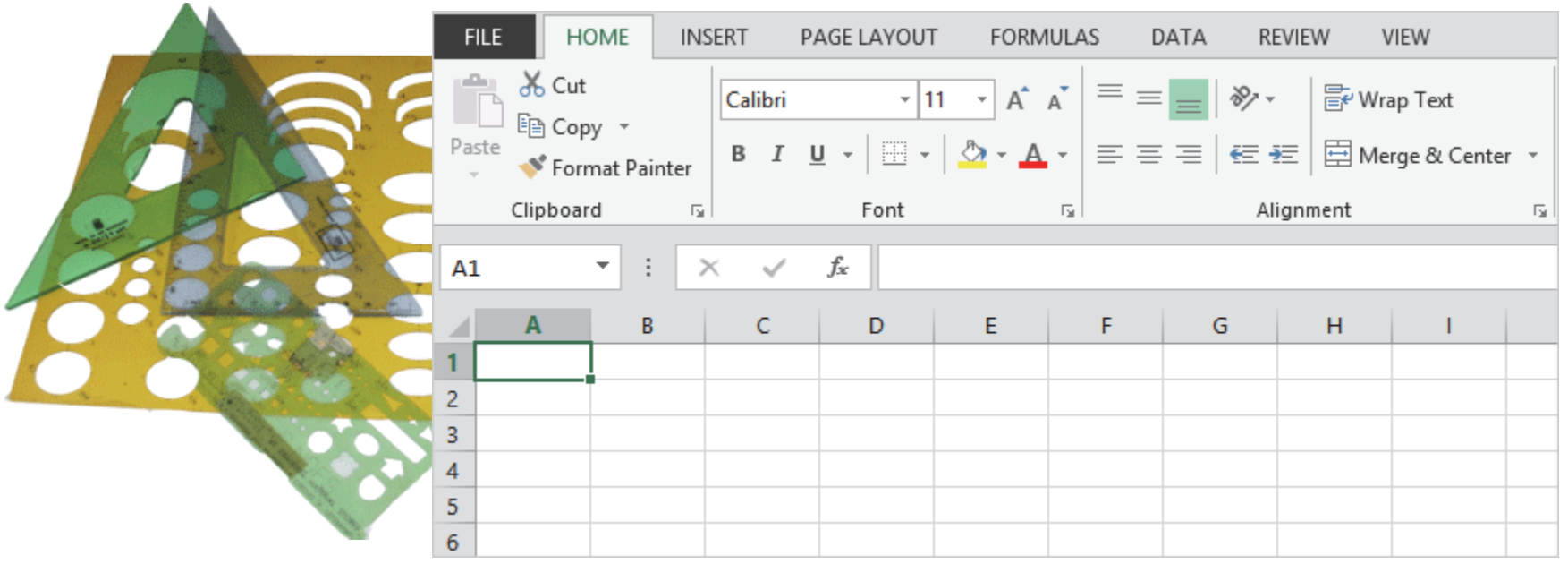


SmartArt and Graphics

The previous lesson focused on working with pictures and introduced the Picture Tools: Design and Format. The next pages work with Shapes and SmartArt: two more methods to picture the data. This lesson will introduce several new Ribbons. As you identify and practice the options, notice how many of the Shape and WordArt Styles are the same on all of the Ribbons. The topic for this Level is **Visualizing the Data.** This lesson concludes with a review of the options on the **View Ribbon** that you can use in a spreadsheet.

If you are ready, please **Start Microsoft Excel**. When the Welcome screen appears, select a new, blank workbook.

What Do You See from the top of the screen? Is there a **Home** Ribbon? And the **Insert**, **Page Layout, Formulas, Data. Review and View** Ribbons as well? Yes. Then you are ready to get started.



Insert Shapes

Begin with a blank spreadsheet. You can practice with the company names or logos pictured on the following pages, or create your own if you wish.

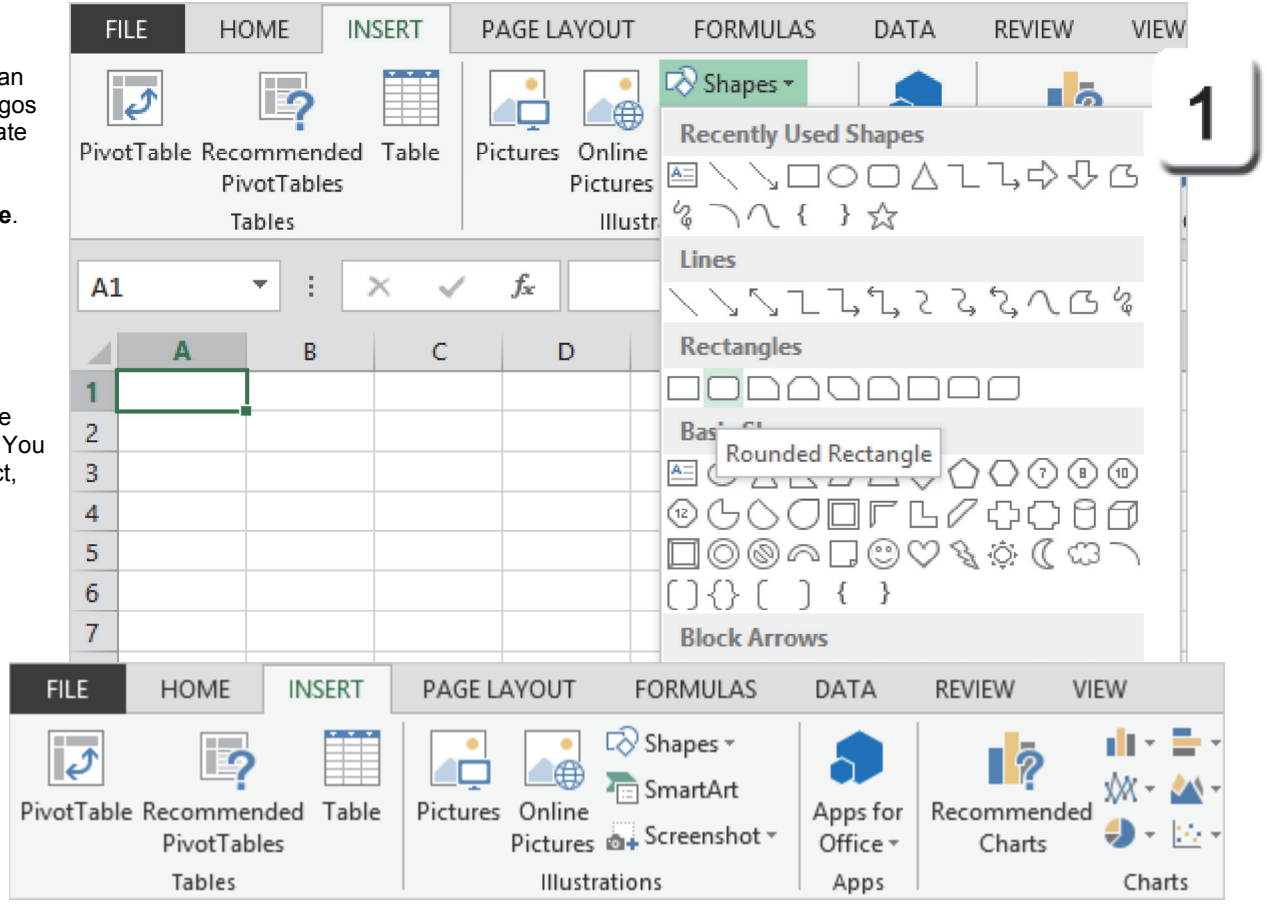
This lesson begins with a simple **Shape**. Here are the steps.

1. Try This: Insert Illustrations
Go to **Insert->Illustrations->Shapes.**
Select a **Shape: Rounded Rectangle**.

Hold your cursor on a blank place in the spreadsheet and draw a small square. You should see a **Shape** that you can select, format and resize.

Keep going...

Insert -> Illustrations



Take Three

Hello, Shape

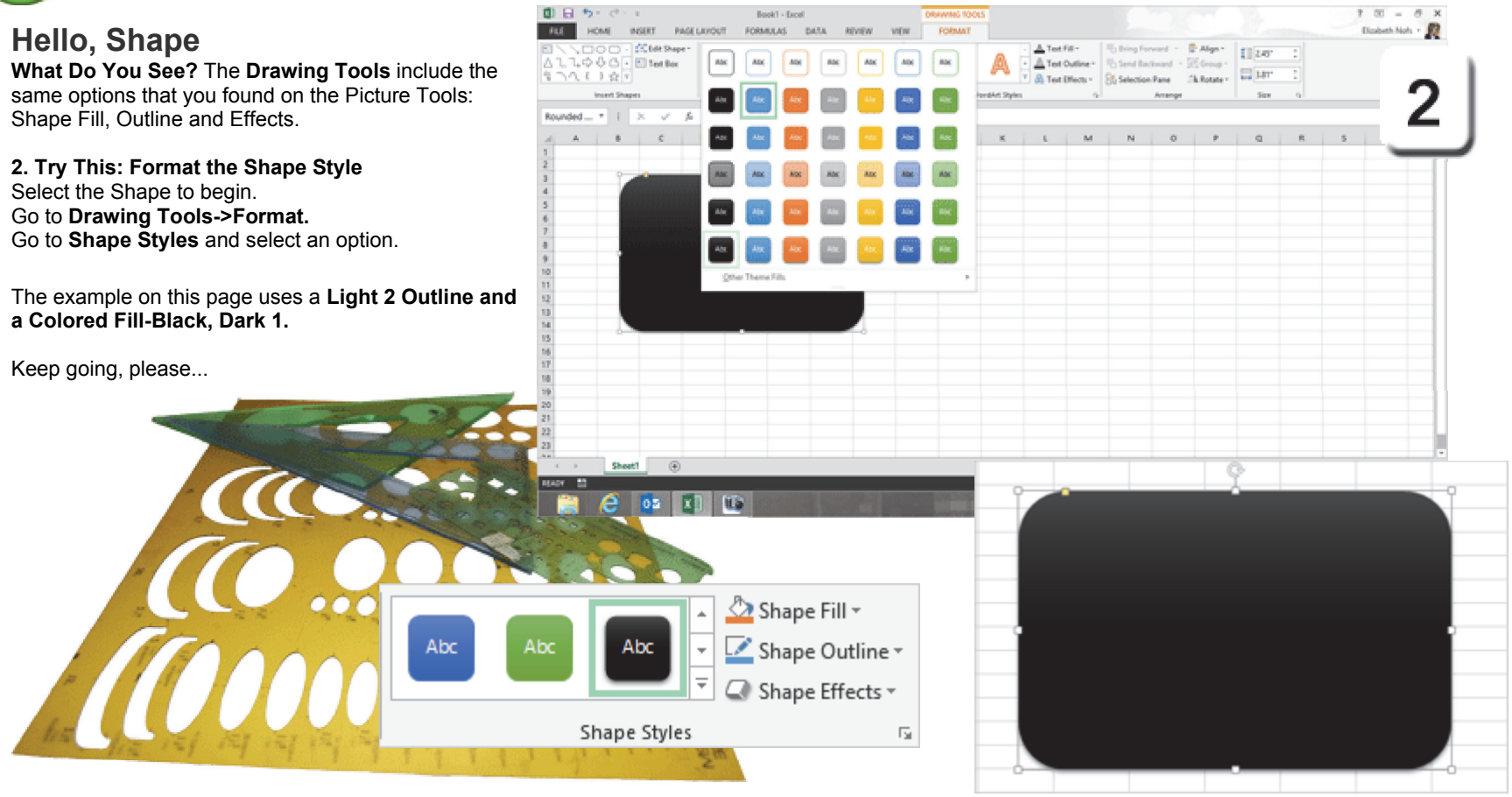
What Do You See? The **Drawing Tools** include the same options that you found on the Picture Tools: Shape Fill, Outline and Effects.

2. Try This: Format the Shape Style
Select the Shape to begin.
Go to **Drawing Tools->Format.**
Go to **Shape Styles** and select an option.

The example on this page uses a **Light 2 Outline and a Colored Fill-Black, Dark 1.**

Keep going, please...

Drawing Tools-> Format->Shape Styles



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Change Object Colors (Shape Fill)

Take Three

Format the Shape Fill

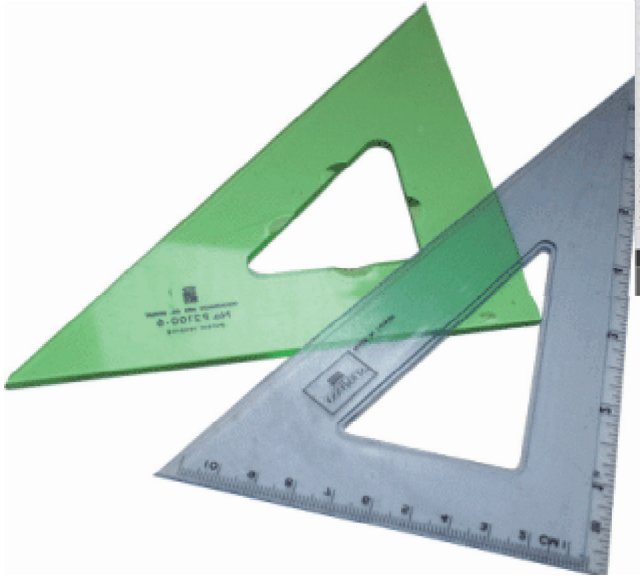
3. Try This: Format the Shape Fill

Select the Shape to begin.

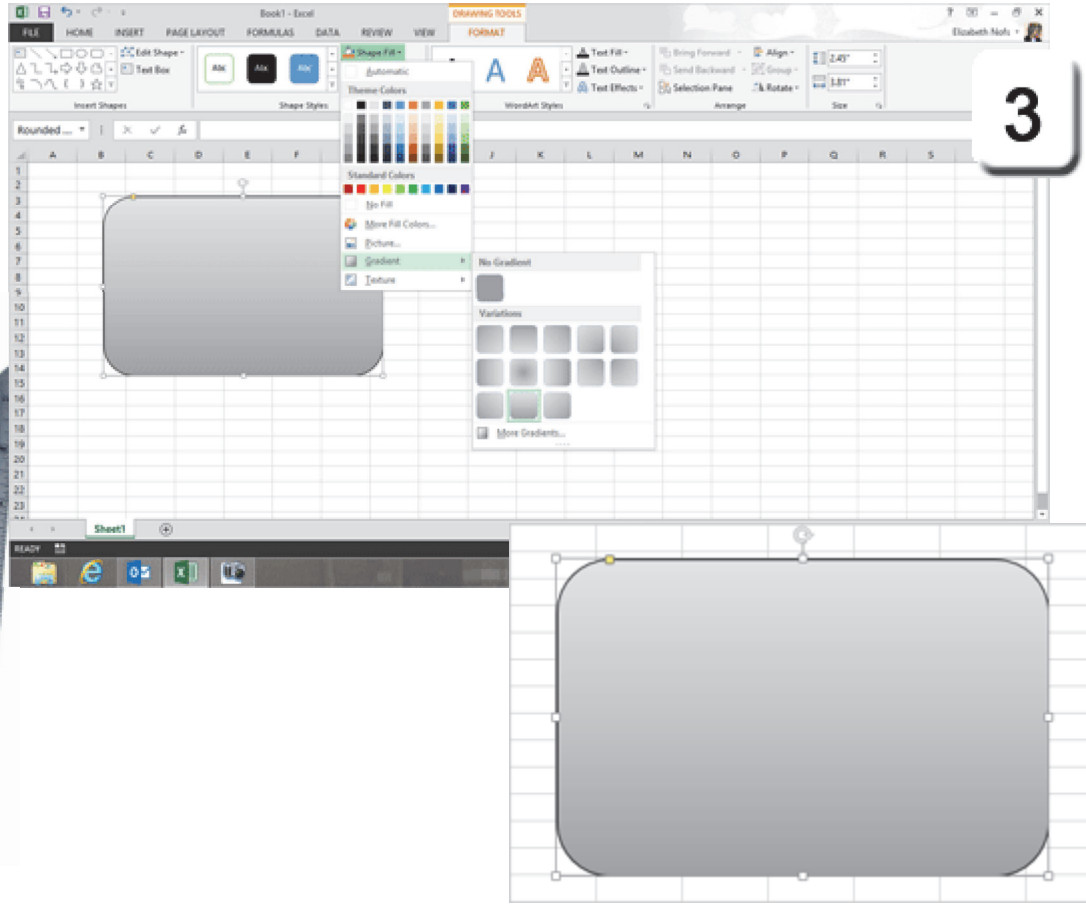
Go to **Drawing Tools->Format->Shape Styles.**

Go to **Shape Fill** and select an option from the Theme Colors, Standard Colors or Textures. The example on this page has a **Gradient** Shape Fill.

Keep going, please...



Drawing Tools-> Format->Shape Styles->Shapes Fill



Take Three

Format the Shape Outline

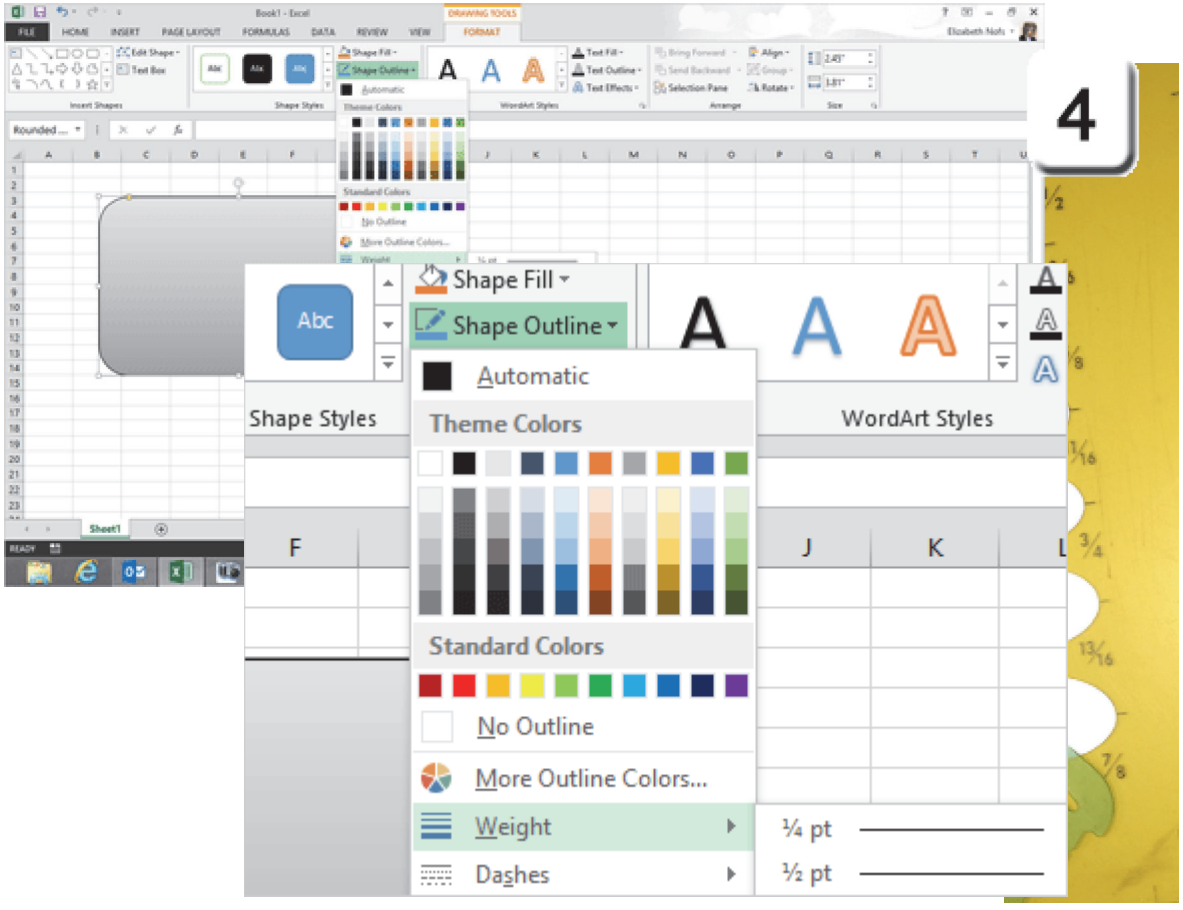
You can use the **Drawing Tools** to format the **Shape Outline**. The formatting options include Color, Weight, Dashes and Arrows.

4. Try This: Format the Shape Outline
Select the Shape, first.
The **Drawing Tools** will be available.
Go to **Format->Shape Styles->Shape Outline**.
Select a **Weight**.

Keep going...



Drawing Tools-> Format->Shape Styles->Shape Outline



Take Three

Format the Shape Effects

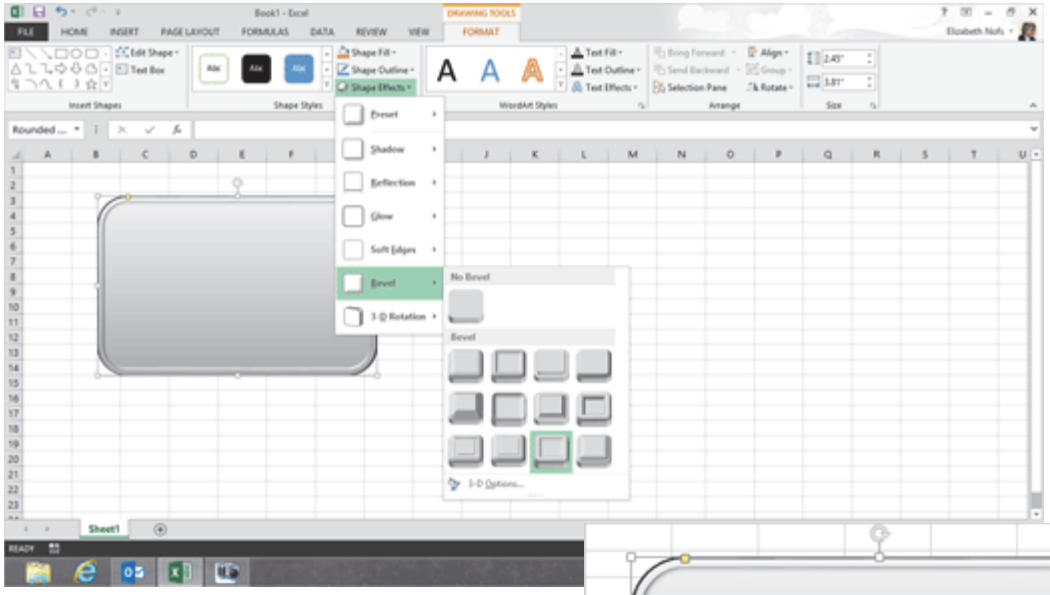
The **Shape Effects** include a library of **Presets** (preformatted Shape Styles) as well as separate options for formatting the Shadow, Reflection, Glow, Soft Edges, Bevel and 3-D Rotation Effects.

5. Try This: Format the Shape Effects
Select the Shape, first.
The **Drawing Tools** will be available.
Go to **Format->Shape Styles.**
Go to **Shape Effects.**
Select a **Bevel.**

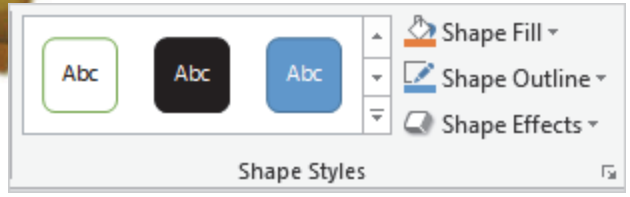
So far so good.

Drawing Tools-> Format->Shape Styles-> Shape Effects

5









Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Add Borders to Objects (Shape Effect)

Take Three

Add Text to the Shape

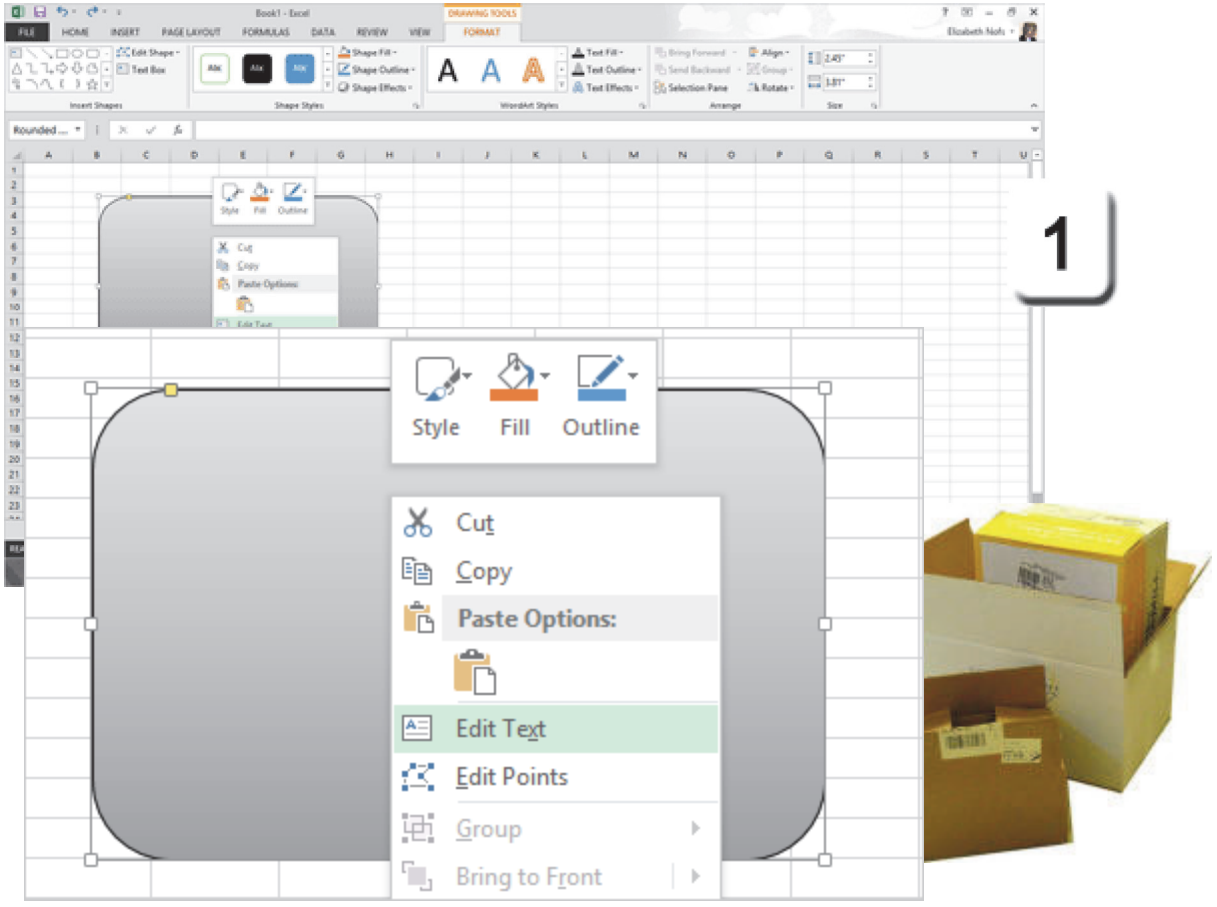
The next pages look at the options for formatting the **WordArt**. Here are the steps to add Text to the Shape.

1. Try This: Add Text to a Shape
Right-click the Shape, first.
When the options menu appears, select Edit Text. Your cursor should be flashing in the upper left corner of the Shape.
(It may be very small.).
Type: Charlotte's Website.

What Else Do You See? The Shape also has Quick Styles: little menus for Style, Fill and Outline. The Quick Styles have some of the formatting we just found in the Drawing Tools.
Keep going...

Memo to Self: Here is another way to add Text to a Shape. The Shape is selected. Go to **Drawing Tools->Format-> Insert Shapes**. Click on **Text Box**.
The cursor should be flashing in the upper left corner of the Shape.

Right-Click-> Edit Text



Take Three

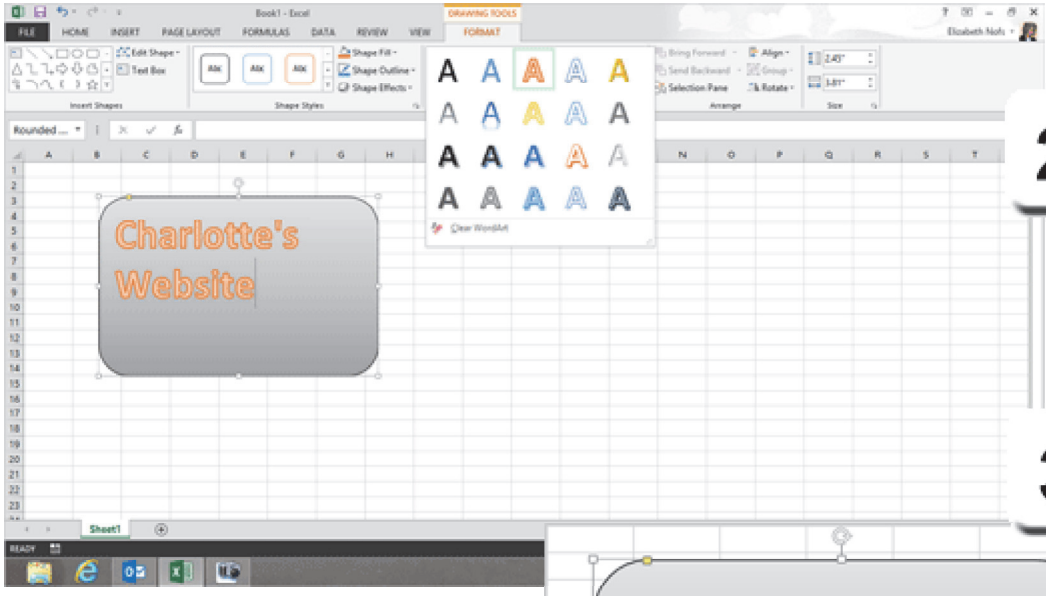
Format the Text with Styles

Each program in Microsoft Office --Excel, Word, PowerPoint, even Outlook--has WordArt. **WordArt** is a rich, new set of text formatting options. Let's review some here.

2. Try This: Format the WordArt
Select the type: Charlotte's Website
Go to **Home->Font.**
Edit the Font **Size**: 40
3. Try This, Too: Format the Text
Go to **Drawing Tools->Format->WordArt Styles.**
Select a **WordArt Style**.

What Do You See? The **WordArt Styles** will be applied to all of the text selected in the Shape.

Drawing Tools-> Format->WordArt Styles







Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Format Text in Objects (WordArt Styles)

Take Three

More WordArt Formatting

Each element in the WordArt Styles can be formatted by hand if you wish. The options include **Text Fill, Outline and Effects**.

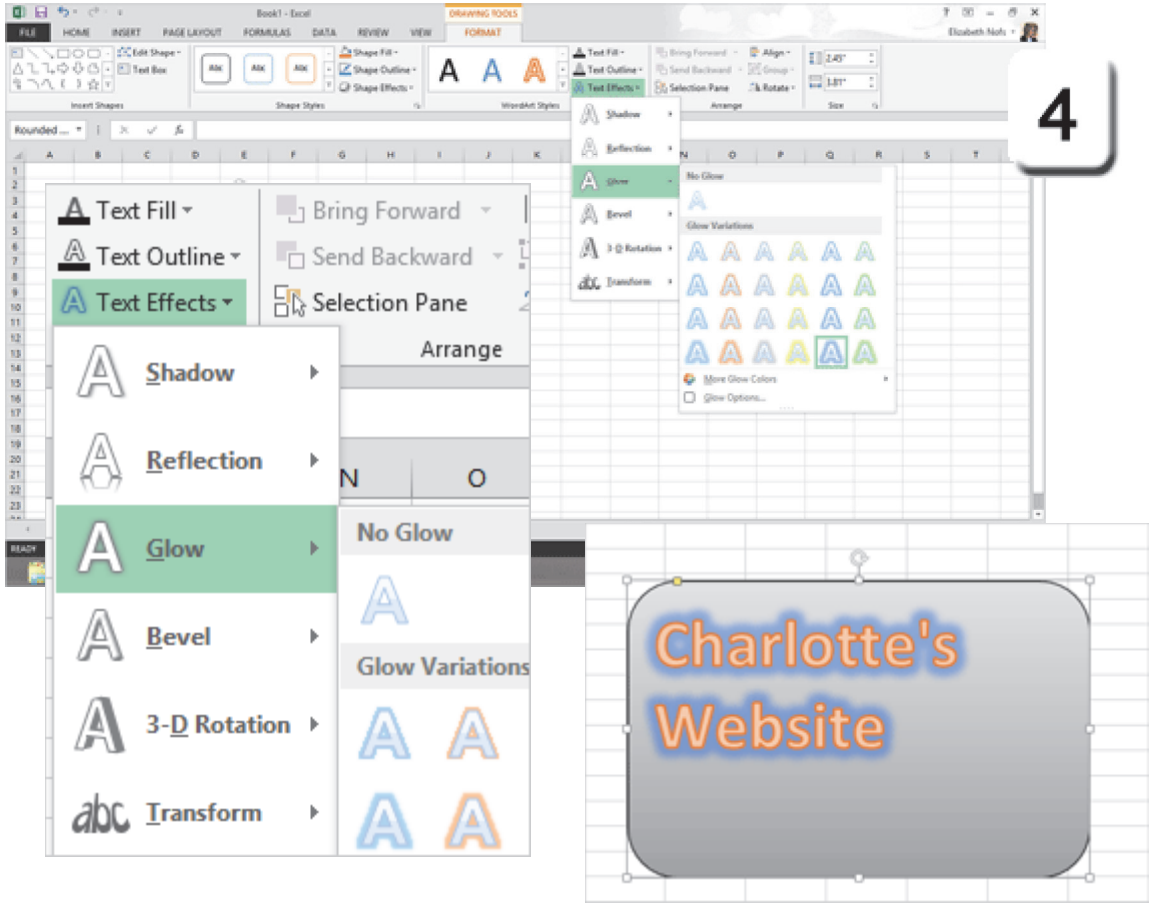
4. Try This: Format the Text Effects
Select the type: Charlotte's Website
Go to **Drawing Tools->Format->WordArt Styles.**
Go to **Text Effects->Glow.**
Choose one of the **Glow Variations**.

What Do You See? The **Text Effects** formatting include Shadow, Reflection, Glow, 3-D Rotation and Transform.

Keep going...



Drawing Tools-> Format->WordArt Styles->Text Effects



Take Three

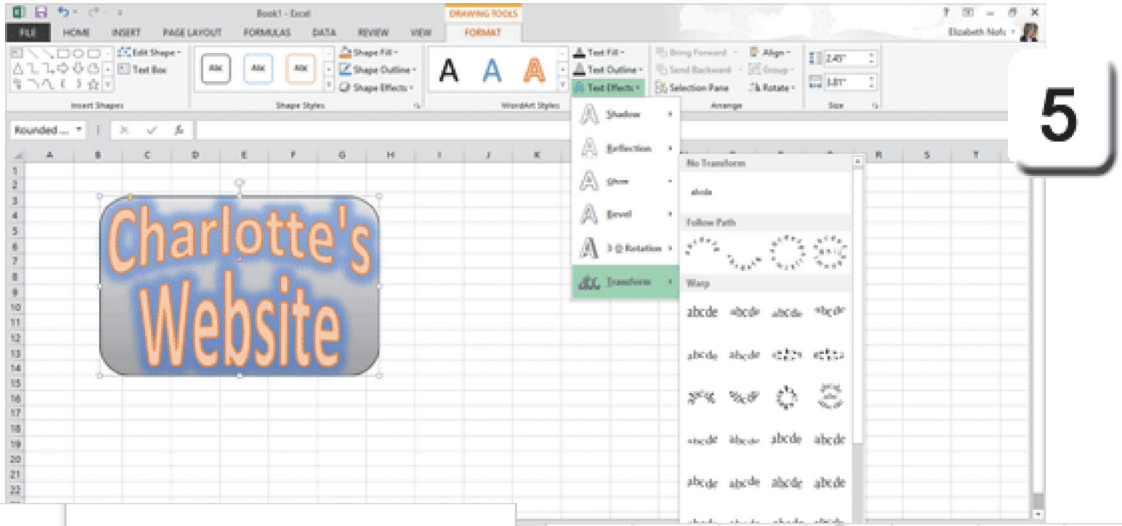
Way Cool Transform

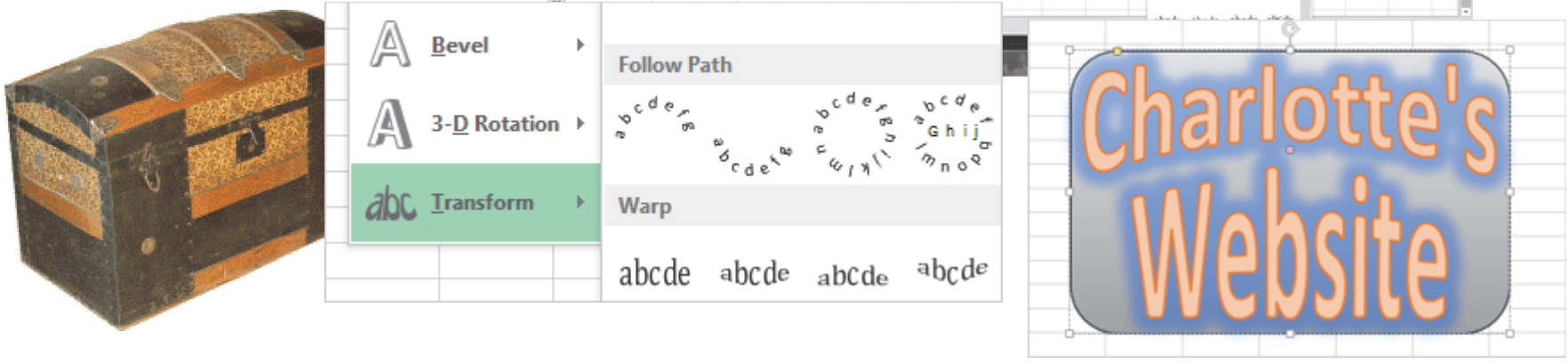
Microsoft Excel has significantly improved the Text Effects with the addition of the new **Transform** options. Look how easy it is to create some stunning effects!

5. Try This: Format the Text Effects
Select the text: Charlotte's Website
Go to **Drawing Tools->Format->WordArt Styles.**
Go to **Text Effects->Transform.**
Choose one of the **Transform** options.

What Do You See? The **Transforms** include circle Paths and various Warps.

Drawing Tools-> Format->WordArt Styles->Text Effects->Transform





Take Three

Insert SmartArt

SmartArt adds functionality to Shapes and Text Boxes. You can quickly visualize your data in a dynamic format that is simple to update.

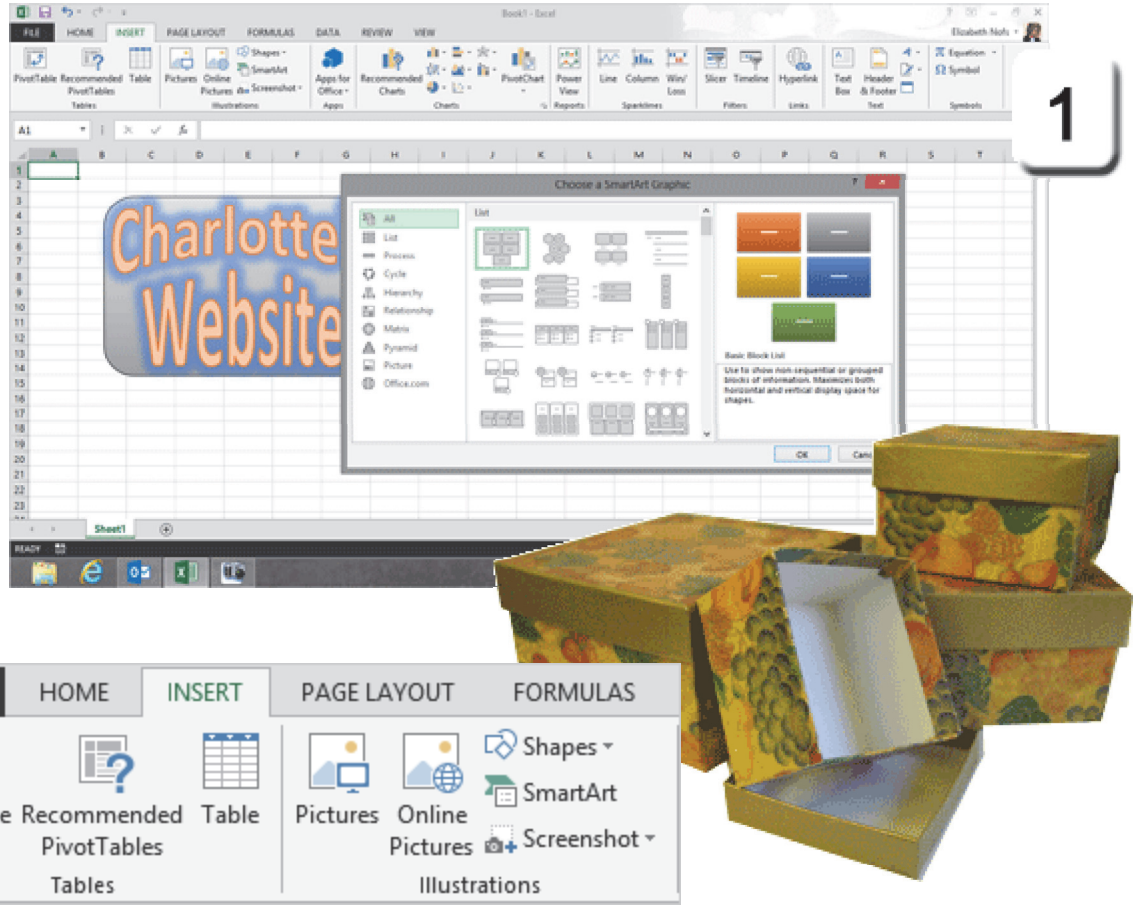
SmartArt adds Shapes based on your Text Outline. When you add a new name or item, the SmartArt will automatically reformat the layout using the new information.

1. Try This: Insert SmartArt
Go to **Insert -> Illustrations.**
Click on **SmartArt.**

Keep going...

Where have you seen this before? SmartArt is similar to Microsoft Visio, the shape and diagram program. Many people use Visio diagrams and SmartArt to create Organizational Charts.

Insert -> Illustrations->SmartArt



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Insert SmartArt

Take Three

SmartArt Graphics

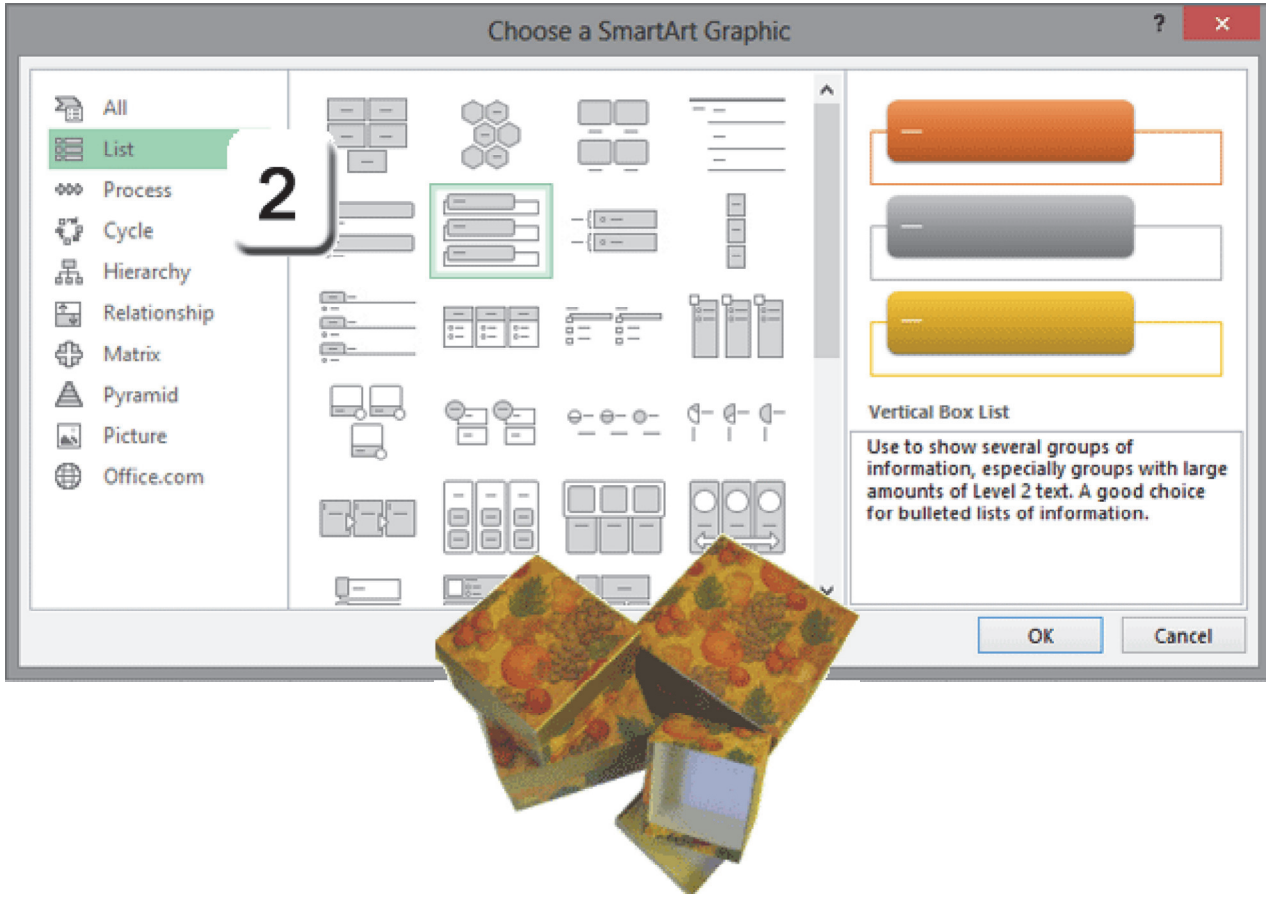
Choose a SmartArt Graphic
The SmartArt library includes:
All
List
Process
Cycle
Hierarchy
Relationship
Matrix
Pyramid
Picture
Office.com

As you click on each option, you should see a sample of the graphic and a short description of how this image may be useful.

2. Try This: Select a List Graphic
Go to **List**.
Select: Vertical Box List.
Click **OK**.

Keep going...

Insert -> Illustrations-> SmartArt



Take Three

Hello, SmartArt

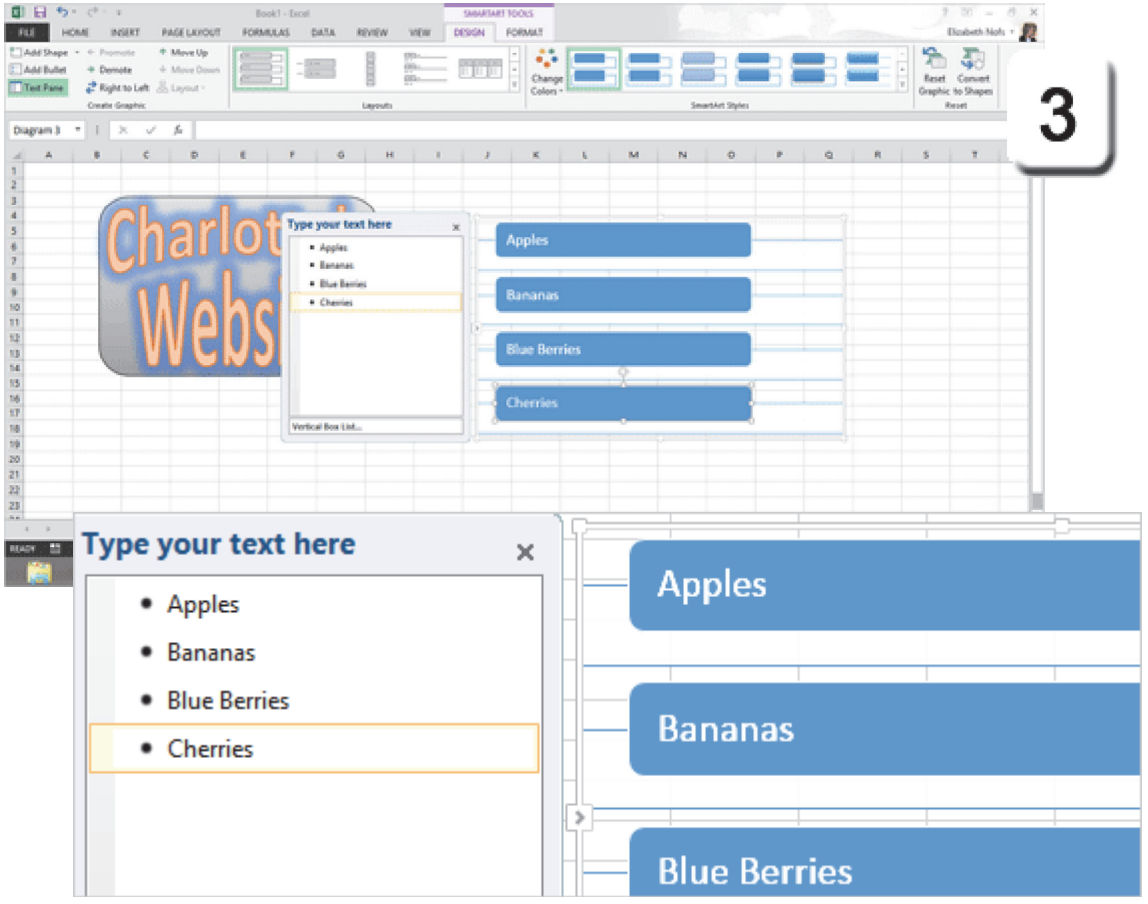
What Do You See? There should be a new SmartArt graphic.
What Else Do You See? There are two parts to the SmartArt graphic: The **Text Pane** and the **Diagram**. Whatever you type into the Text Pane will be displayed in the Diagram.

3. Try This: Add Sample Text
Please type the following in the Text Pane:
Apples
Bananas
Blue Berries
Cherries

When you add the fourth item in the list, the SmartArt automatically adds a new Shape to the Diagram.

What If You Don't See the Text Pane?
Click once on the SmartArt to select it.
Look carefully at either side of the Border. There is a small **arrow** in the middle of the left Border. This arrow opens and closes the Text Pane.

SmartArt Tools -> Design



SmartArt Tools

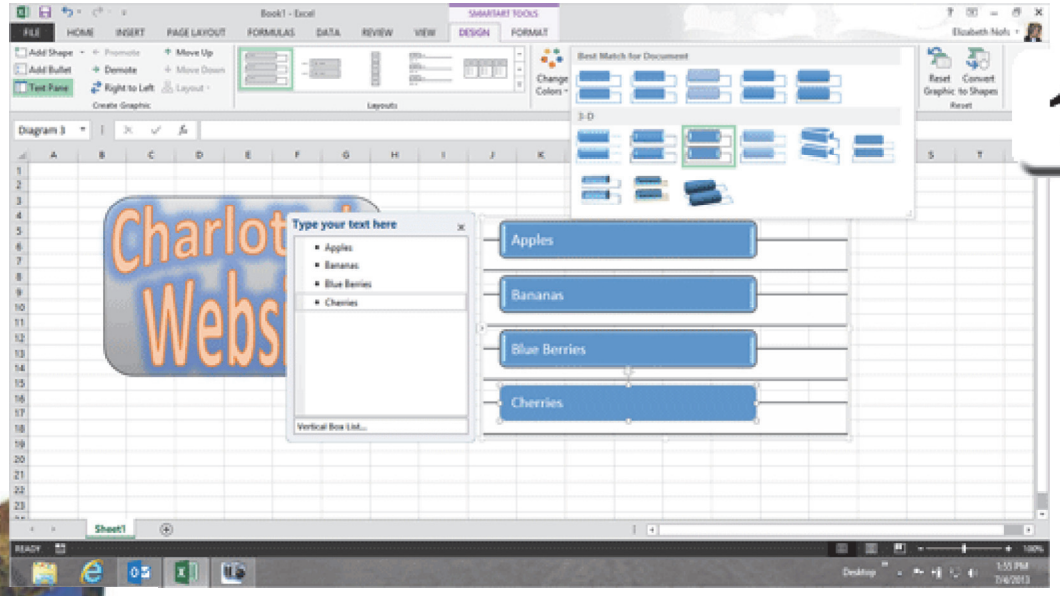
There are two **SmartArt Tools**: **Design** and **Format**. The Design Tools edit the Layout, Color and Styles.

1. Try This: Use the SmartArt Styles
Select the SmartArt Diagram, first.
Go to **SmartArt Tools->Design**.
Select one of the **SmartArt Styles.**

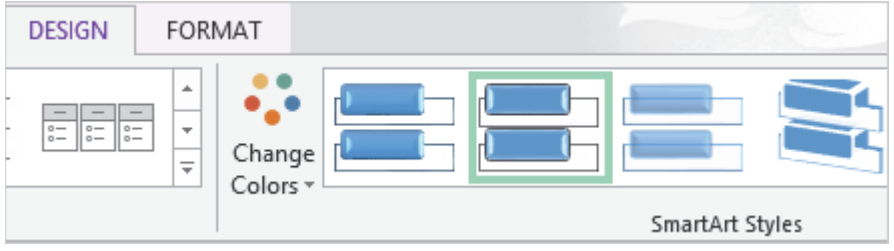
What Do You See? SmartArt has a rich library of **3D Styles** including polished, cartoon, powder, brick and metallic. This formatting is sometimes called "eye candy" because it looks sweet, like a confection.

Keep going...

SmartArt Tools -> Design-> SmartArt Styles







Take Three

Change Colors

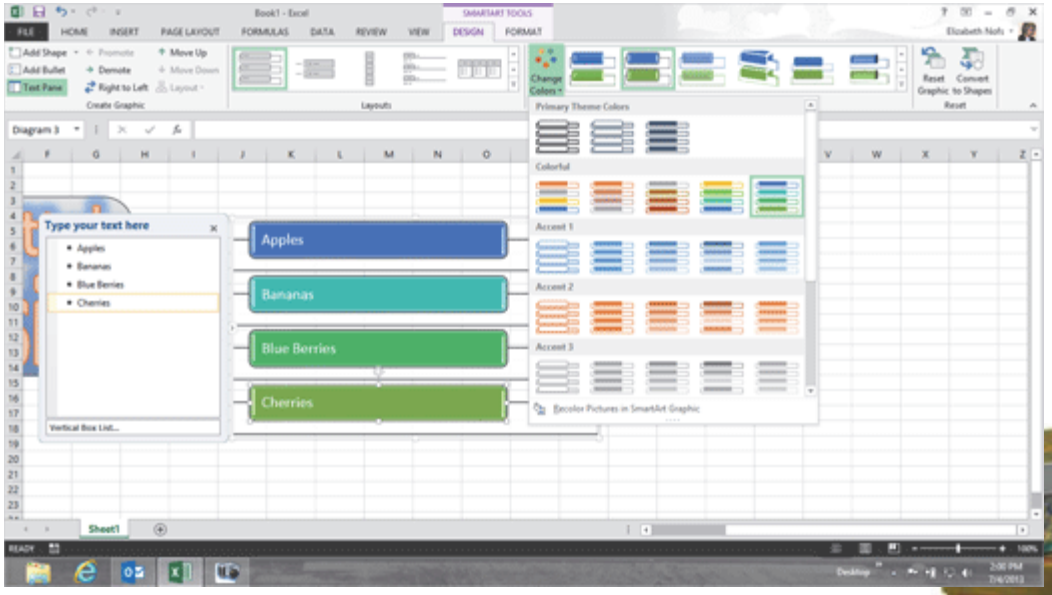
Color is an important part of visualizing data. Here are the steps to **Change the Color** of your SmartArt Diagram.

2. Try This: Change Colors
Please select the SmartArt diagram, first.
Go to **SmartArt Tools->Design**.
Go to **SmartArt Styles.**
Select: **Change Colors**.

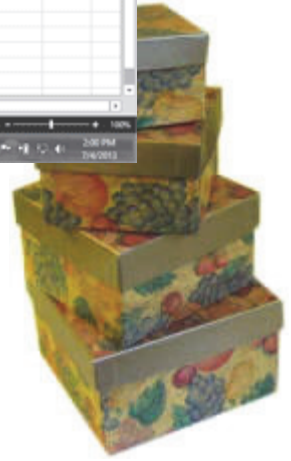
What Do You See? The Color gallery includes several Accent colors as well as the Theme colors. As you browse through the gallery Excel will show you the color formatting in **Live Preview**.

Keep going...

SmartArt Tools -> Design-> SmartArt Styles-> Change Colors







2

Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Add Styles and Effects to Objects (Change SmartArt Color)

Change the Layout

Say you wanted to change the **Layout** of this diagram, perhaps rotate the shapes or choose a different concept. Let's review the options.

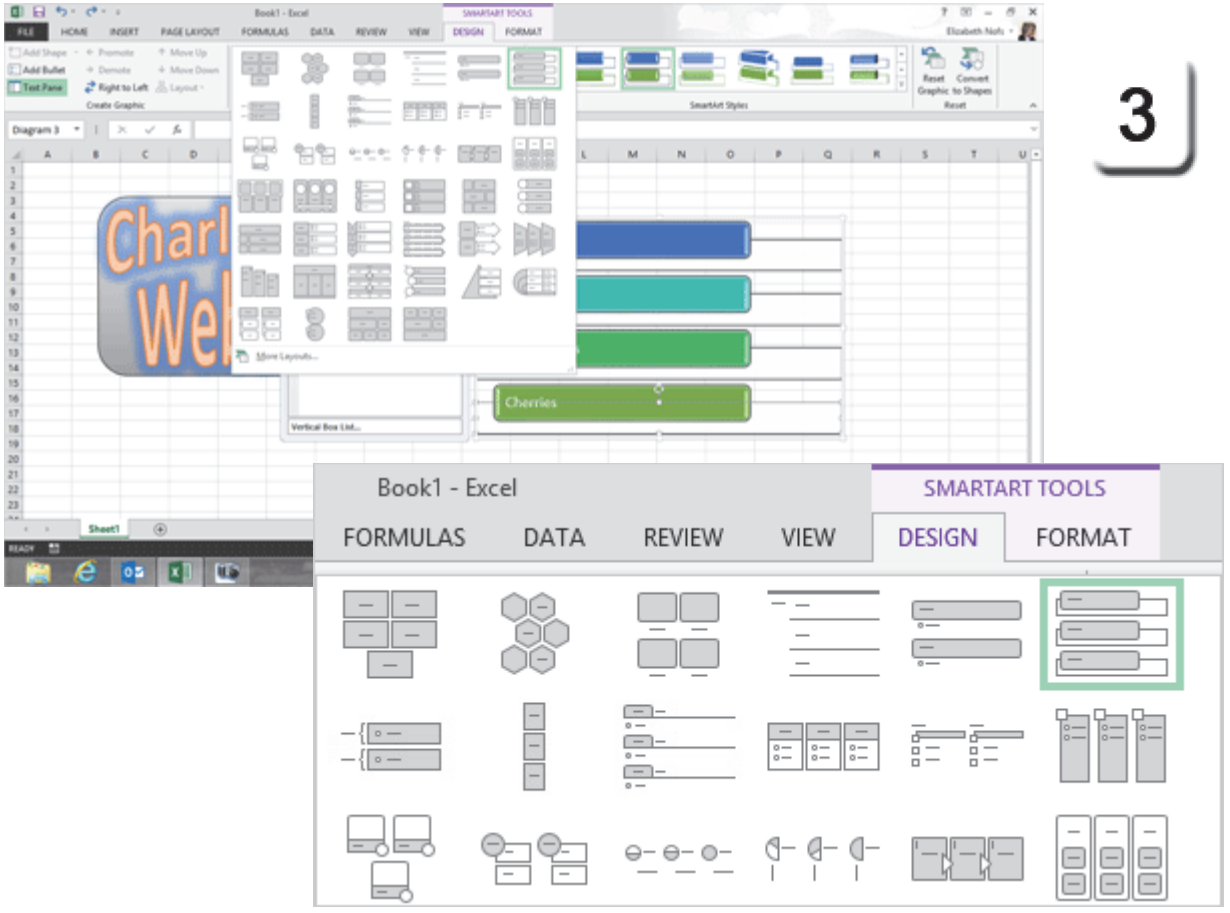
3. Try This: Change Layout
Select the SmartArt Diagram, first.
Go to **SmartArt Tools->Design->Layouts.**

What Do You See? The SmartArt on this page is a List diagram, so the **Layouts** gallery shows the other List Layouts.

OK, Do This Now: Select a Layout
Select a **Layout**: Vertical Picture List.
Click **OK**.

Keep going, please...

SmartArt Tools -> Design-> Layouts



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Add Styles and Effects to Objects (Change SmartArt Layout)

Add SmartArt Pictures

4. Try This: Find the Placeholders

The cool SmartArt diagram shown on this page, **Vertical Picture List**, has placeholders for pictures! A **placeholder** looks like this:



When you click on a placeholder, you will be asked to browse to the folder where you save your pictures.

Yes, Try This: Add Some Pictures

Double Click the Placeholder by the Apples. Browse to your Documents folders and select a picture. You can add pictures to the other Shapes if you wish.

OK, that's a good introduction to SmartArt. Let's look at some more options.

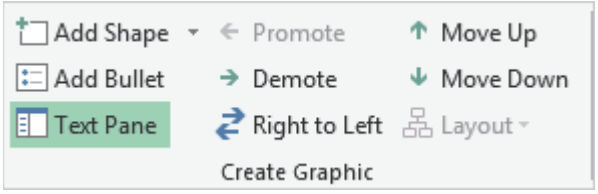
SmartArt Tools -> Design-> Layout



Add a Shape

Say you wanted to add a new product to the SmartArt diagram. The tools can be found on the Design Ribbon in the **Create Graphic** group.

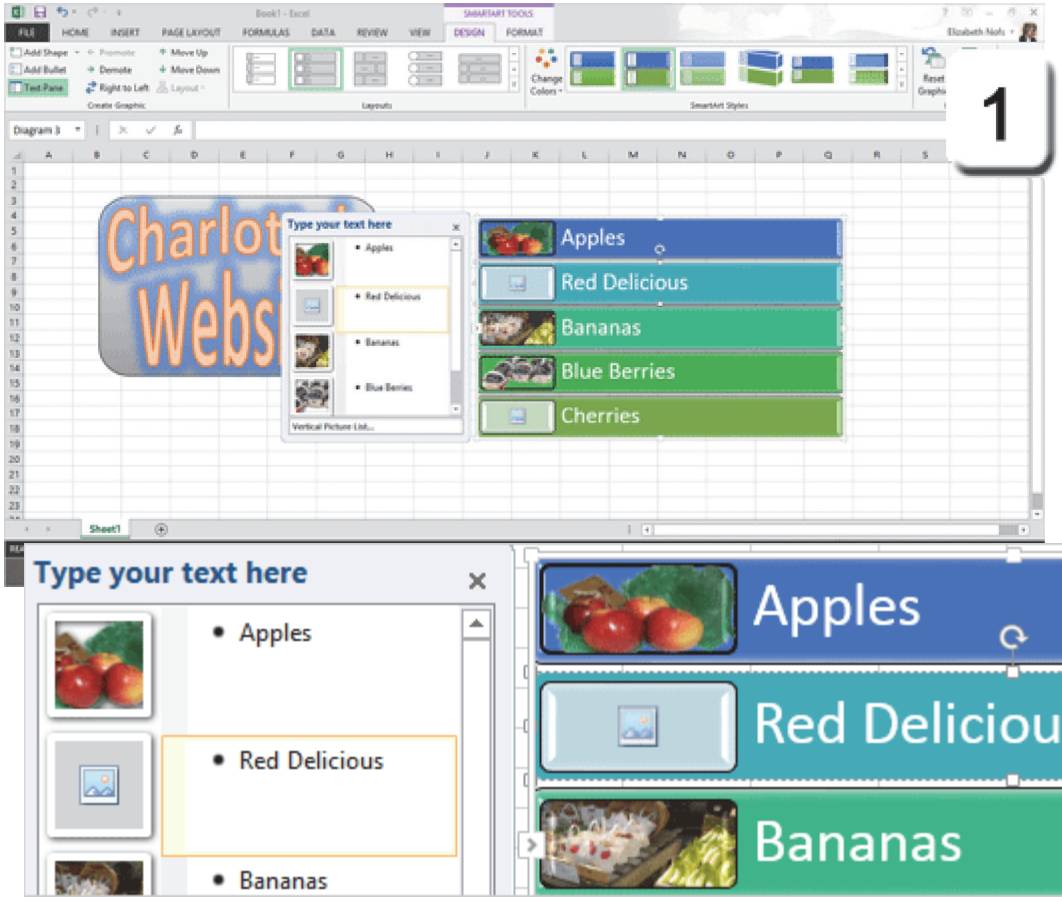
1. Try This: Add a Shape
Click on the first item in the list: Apples.
Go to **SmartArt Tools -> Design.**
Go to **Create Graphic-> Add Shape.**
Type: Red Delicious.



What Do You See? The **Add Shape** options include:
Add Shape After
Add Shape Before
Add Shape Above
Add Shape Below
Add Assistant (for organization charts)
Keep going...

Memo to Self: The options (Before/After, Above/Below) depend on which item you select, first.

SmartArt Tools -> Design-> Create Graphic-> Add Shape



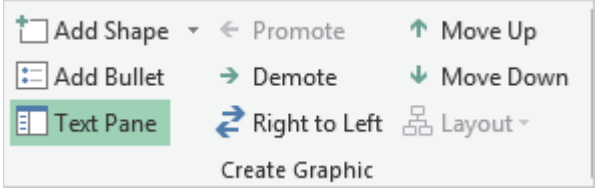
Take Three

Promote and Demote

In the previous example, we created a bulleted list with several product names. SmartArt can also display a **multi-leveled list**.

2. Try This: Demote the Text
Select the SmartArt Diagram, first.
The Text Pane should be visible.
Select one of the items in the bulleted list:
Red Delicious.

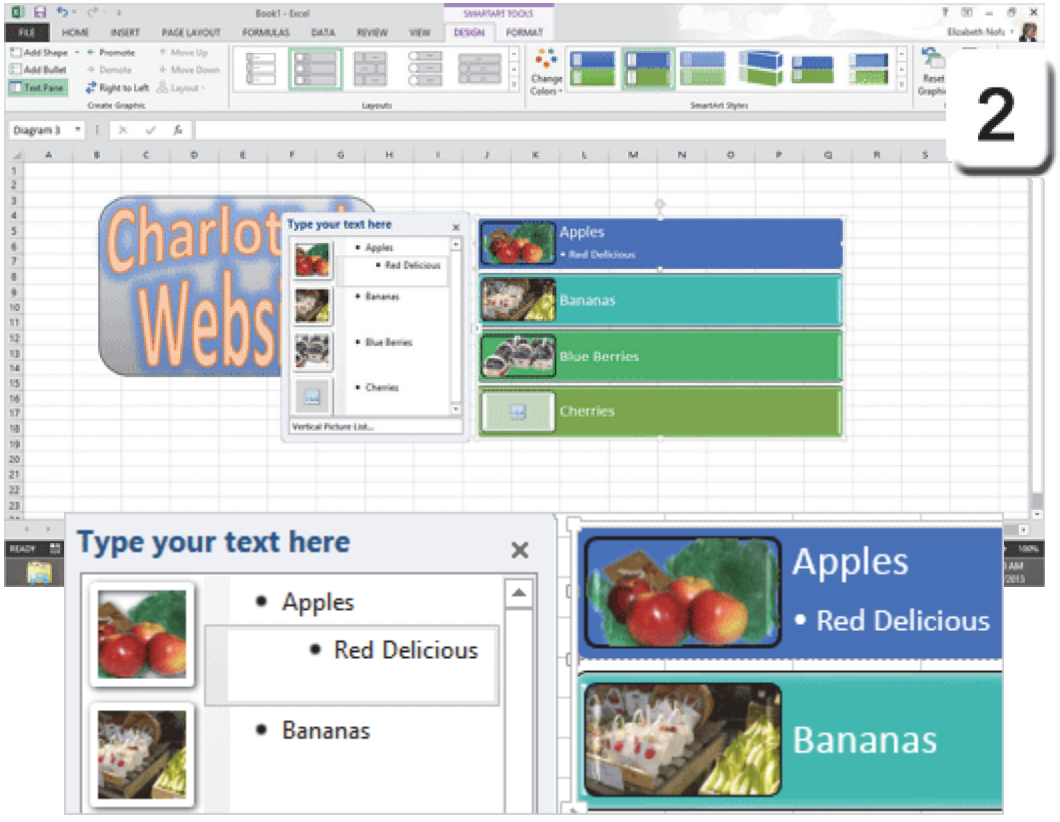
Go to **SmartArt Tools->Design.**
Go to **Create Graphic.**
Click on **Demote.**



What Do You See?
"Red Delicious" is now a new bullet under Apple on both the Text Pane as well as the Shape in the SmartArt Diagram.

Keep going...

SmartArt Tools -> Design-> Create Graphic-> Demote

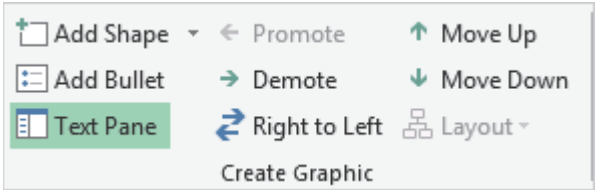


Take Three

Add a Bullet

This is a **multi-leveled list**, so **adding another bullet** adds another item to the list in the Text Pane as well as in the Shape.

3. OK, Try This: Add a Bullet
Select the SmartArt Diagram, first.
The Text Pane should be visible.
Select: Red Delicious.
Go to **SmartArt Tools->Design.**
Go to **Create Graphic->Add Bullet.**

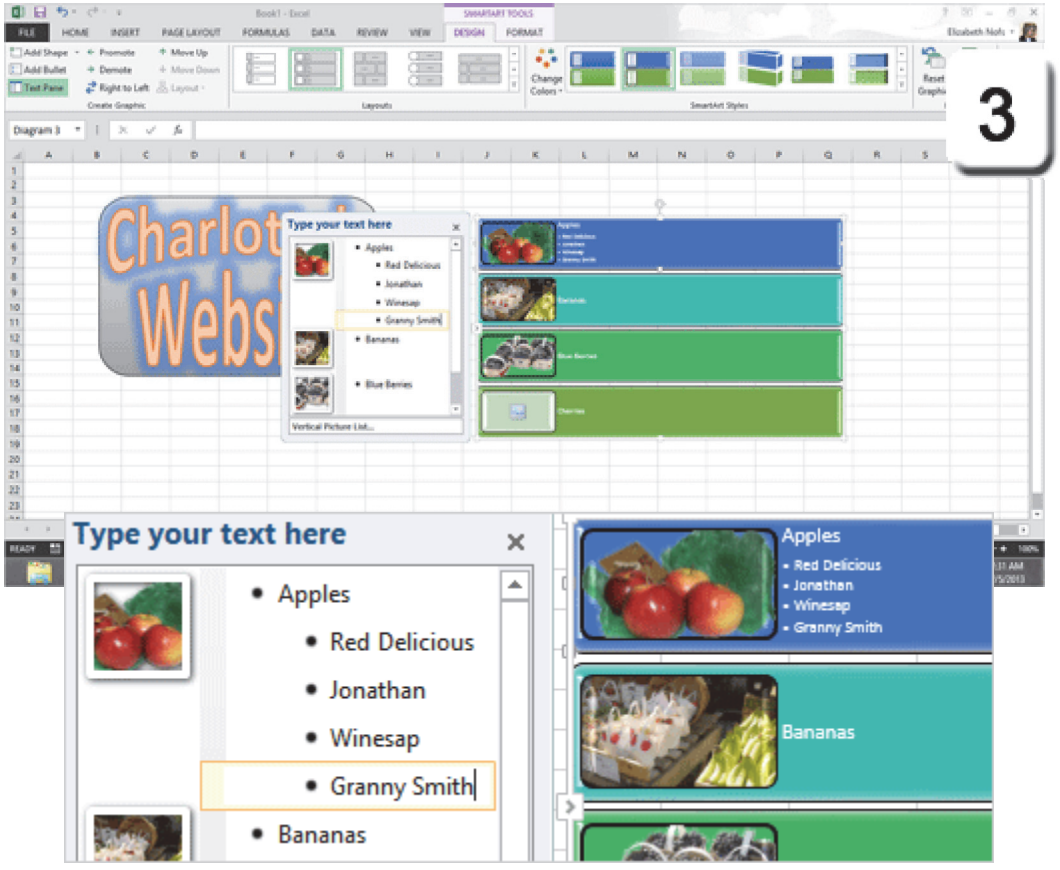


Type the following:
Jonathan
Winesap
Granny Smith

Keep going...

Memo to Self: Another way to add a Bullet is to click ENTER on your keyboard.

SmartArt Tools -> Design-> Create Graphic-> Add Bullet



Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object: Edit the SmartArt Layout (Add Shapes)

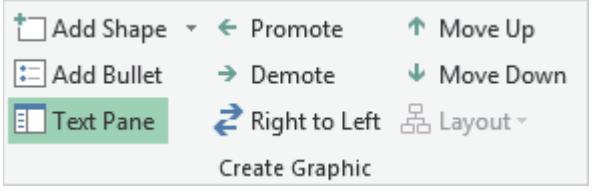
Take Three

Move Up or Move Down

You can reorganize the text with the **Move Up** and **Move Down** commands. As you edit the list in the Text Pane, the SmartArt Diagram will automatically update the Shapes.

4. Try This: Move the Items Up or Down

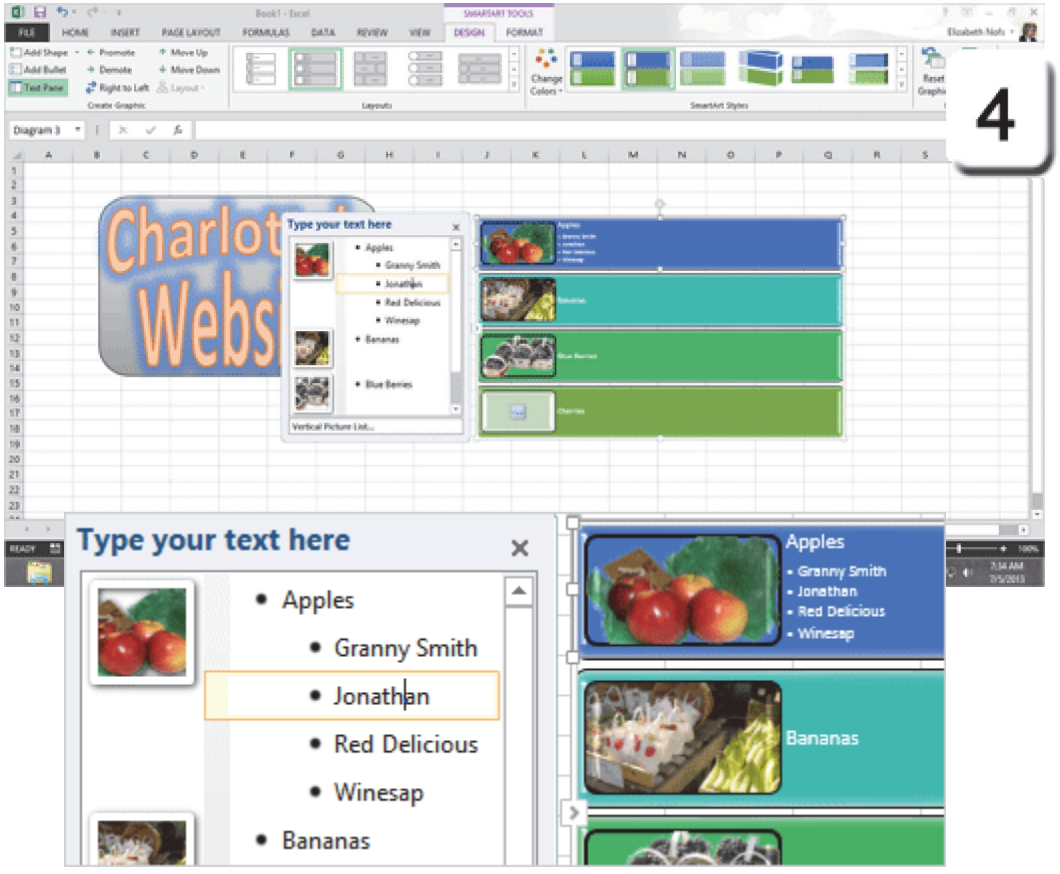
Select the SmartArt Diagram, first.
The Text Pane should be visible.
Select: Jonathan.
Go to **SmartArt Tools->Design.**
Go to **Create Graphic.**
Click on **Move Down.**



What Do You See? You can use **Move Up** and **Move Down** to place the list in the Text Pane in alphabetical order.

Keep going...

SmartArt Tools -> Design-> Create Graphic-> Move Down



Find a Better Layout

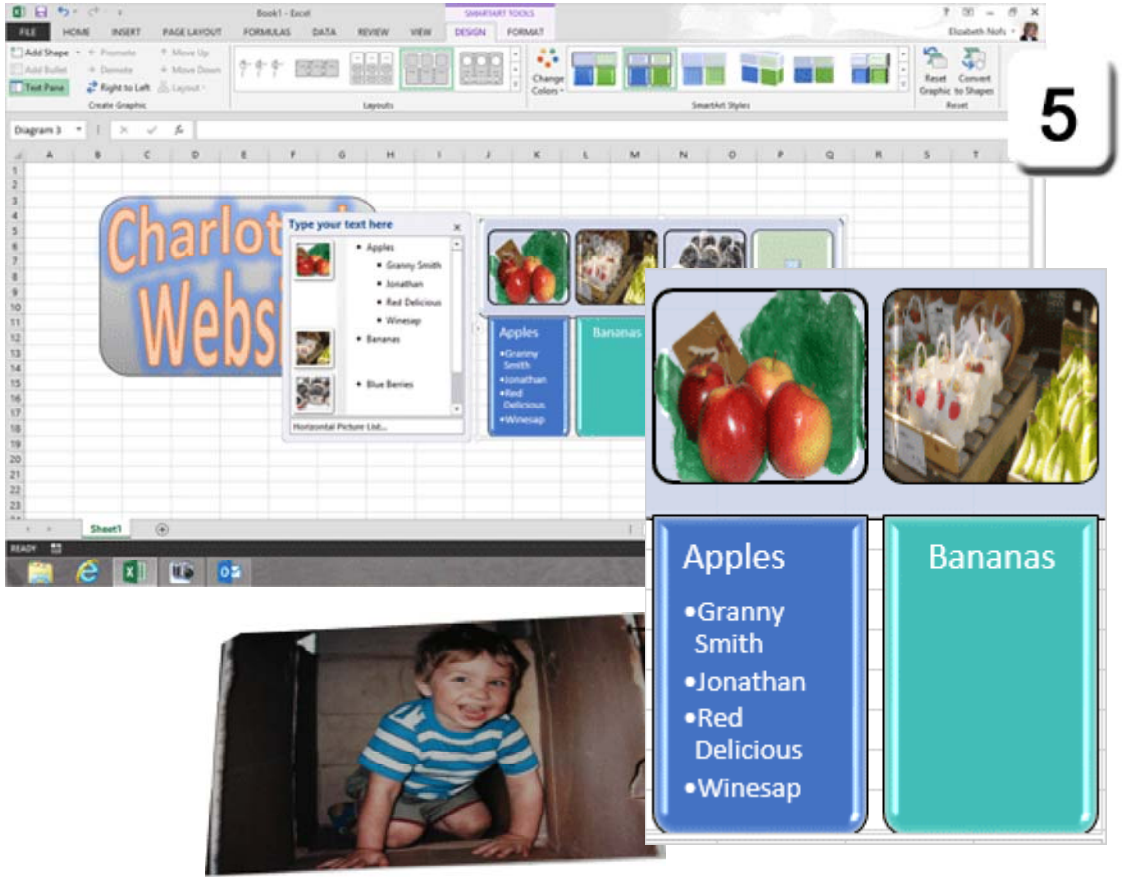
As you edit the list in the Text Pane did you notice that the matching text in the SmartArt diagram automatically updated the type size as you added more items to the bulleted lists?

In our example, the text in the diagram got smaller and smaller. Let's try another **Layout**.

5. Try This: Change the Layout
Select the SmartArt Diagram, first.
Go to **SmartArt Tools->Design->Layouts.**
Select a **Layout**: Horizontal Picture List.

What Do You See? This Layout is easier to read. That's better!

SmartArt Tools -> Design-> Layouts



SmartArt Formatting

We began this discussion by noticing that there are two **SmartArt Ribbons**: **Design** and **Format**. Let's look at the Format Ribbon.

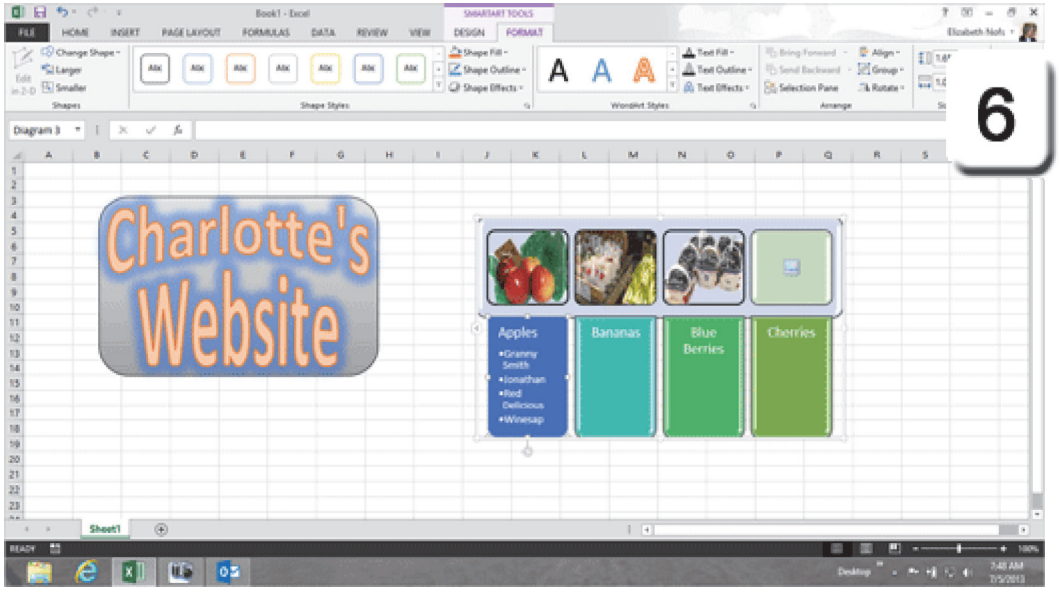
6. Try This: Review the SmartArt Format Ribbon
Select the SmartArt Diagram, first.
Go to **SmartArt Tools->Format.**

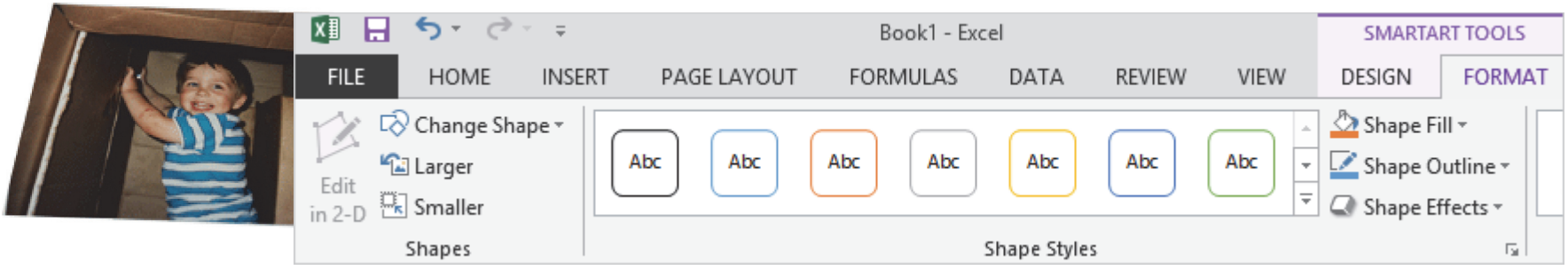
What Do You See? SmartArt creates **Shapes** based on your data, so the formatting options are almost the same as the ones we used for Shapes

Well, this lesson has come full circle. We started with basic shapes and looked at the options with SmartArt.

This is a good place for a quick Cookie Break.
Very good.

SmartArt Tools -> Format





Take Three

WYSIWYG

This level focuses on **Visualizing the Data**. WYSIWYG is an old term that means **What You See Is What You Get**. The following pages show the options on the **View Ribbon**.

1. Try This: Find the View Ribbon
Open a sample file in Excel.
Go to **View->Workbook Views**.

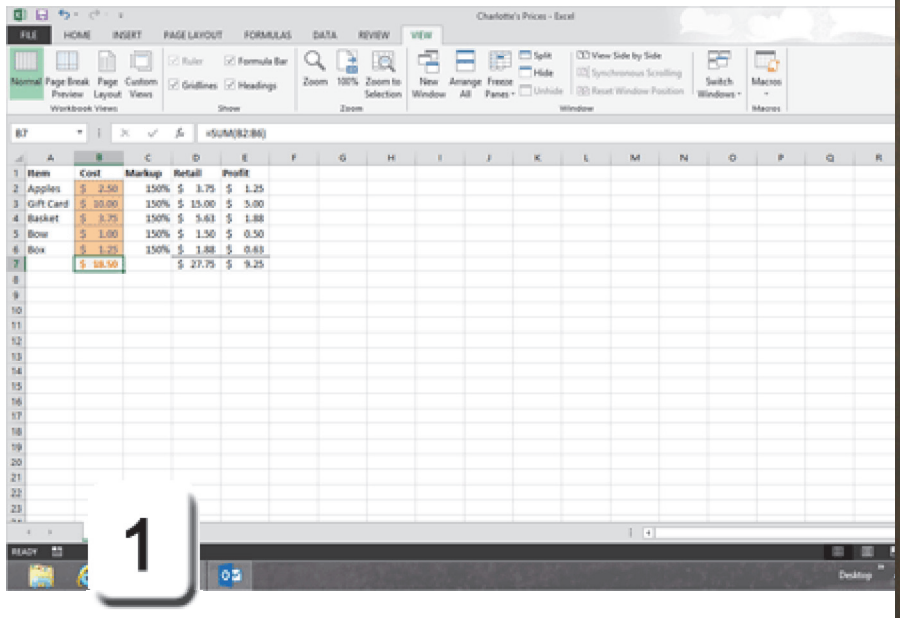
What Do You See? The Default View in Microsoft Excel is **Normal**.

Keep going...

Memo to Self: These lessons show how to work with several spreadsheets open at the same time. You can use the Price Sheet from an earlier lesson if you wish.

It is NOT necessary to MATCH the spreadsheets in this lesson.

View -> Workbook Views->Normal







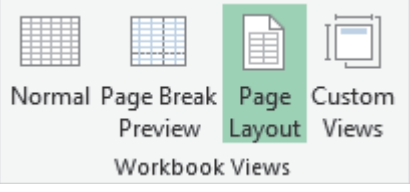
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Change Workbook Views

Take Three

The Page Layout View

Technically, all of the little tabs at the bottom when you open Excel are called spreadsheets. A Workbook is a collection of spreadsheets. So the **Workbook Views** change how you see all of the spreadsheets in this file.

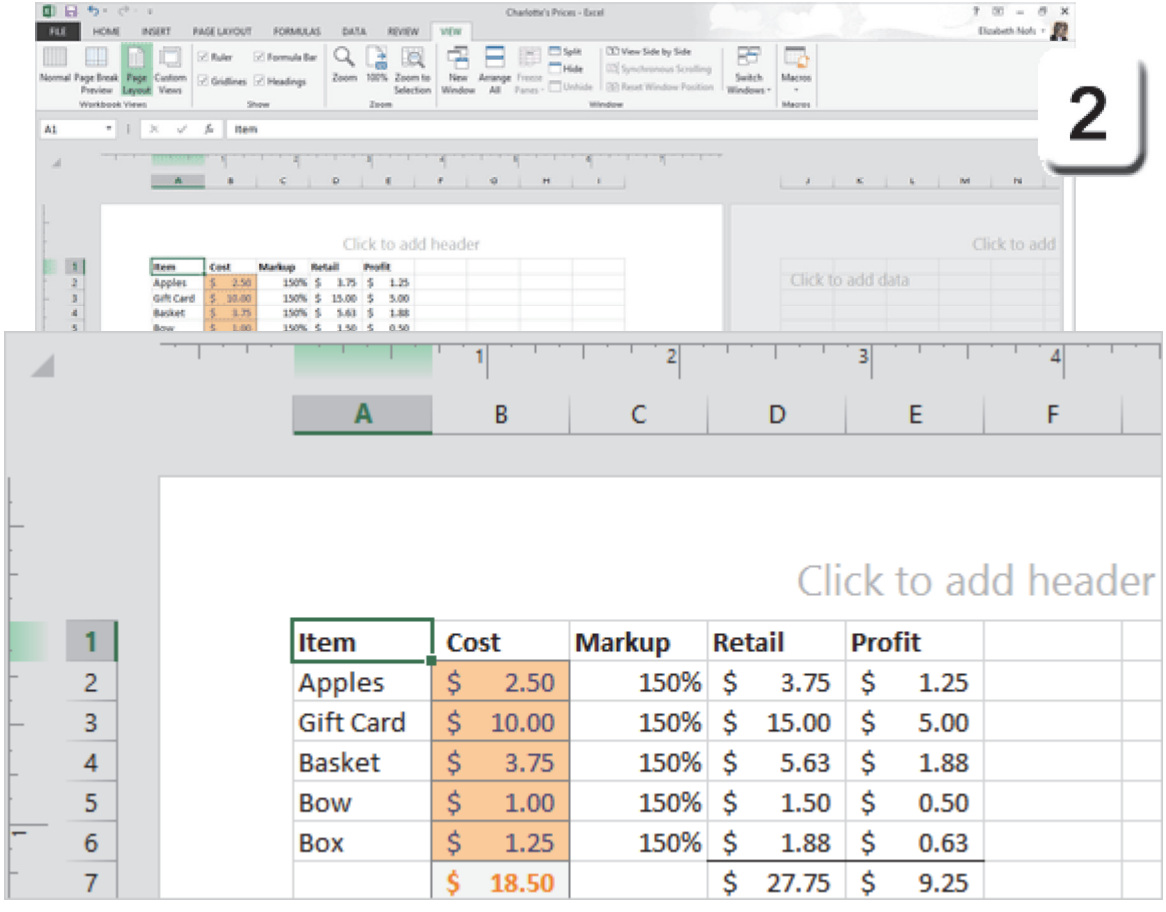
2. OK, Try This: View the Page Layout
A sample Excel spreadsheet is open.
Go to **View->Workbook Views.**
Click on **Page Layout**.



What Do You See? The **Page Layout** View shows you how your data fits on a page.

What Else Do You See? You can **Click to Add** a **Header** and **Footer** in the **Page Layout** View. OK, keep going....

View->Workbook Views->Page Layout



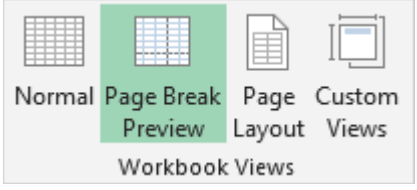
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Page Layout View

Take Three

The Page Break Preview

Microsoft Excel has a **Page Break Preview** that lets you see how your spreadsheet will print, based on your Page Layout.

3. Try This, Too: View the Page Layout
A sample Excel spreadsheet is open.
Go to **View->Workbook Views**.
Click on **Page Break Preview.**

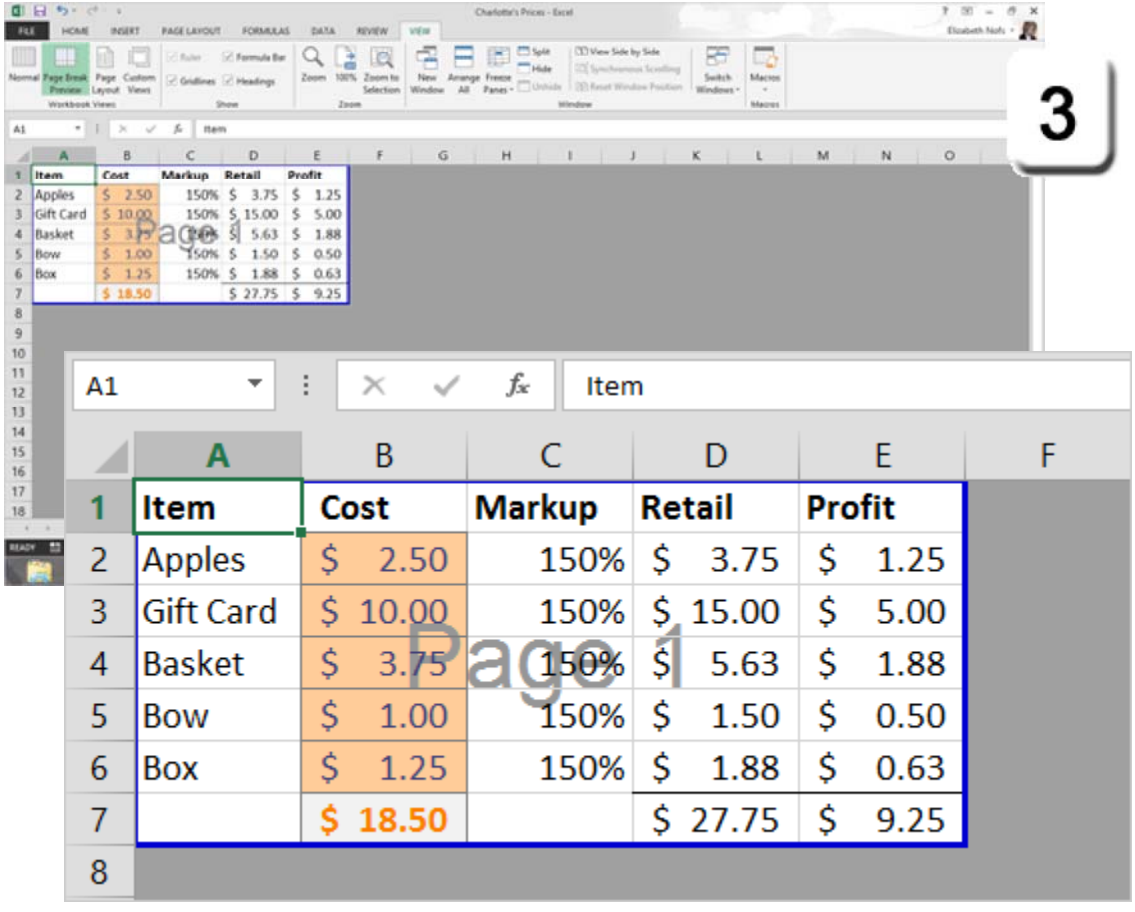


What Do You See? The **Page Break Preview** outlines the Print Area with a thick blue border. You can drag that blue border to resize the Print Area.

Click **Normal**. Keeeep going...

Memo to Self: The print options are covered in the Intermediate Excel 2013 Study Guide.

View->Workbook Views->Page Break Preview



	A	B	C	D	E
1	Item	Cost	Markup	Retail	Profit
2	Apples	$ 2.50	150%	$ 3.75	$ 1.25
3	Gift Card	$ 10.00	150%	$ 15.00	$ 5.00
4	Basket	$ 3.75	150%	$ 5.63	$ 1.88
5	Bow	$ 1.00	150%	$ 1.50	$ 0.50
6	Box	$ 1.25	150%	$ 1.88	$ 0.63
7		$ 18.50		$ 27.75	$ 9.25
8					

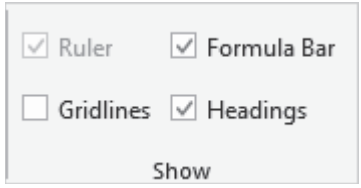
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Page Break Preview

Take Three

Show the Workbook Options

The **Gridlines** help people read the Rows and Columns. The Ruler, Gridlines, Headings and the Formula bar can be turned on or off.

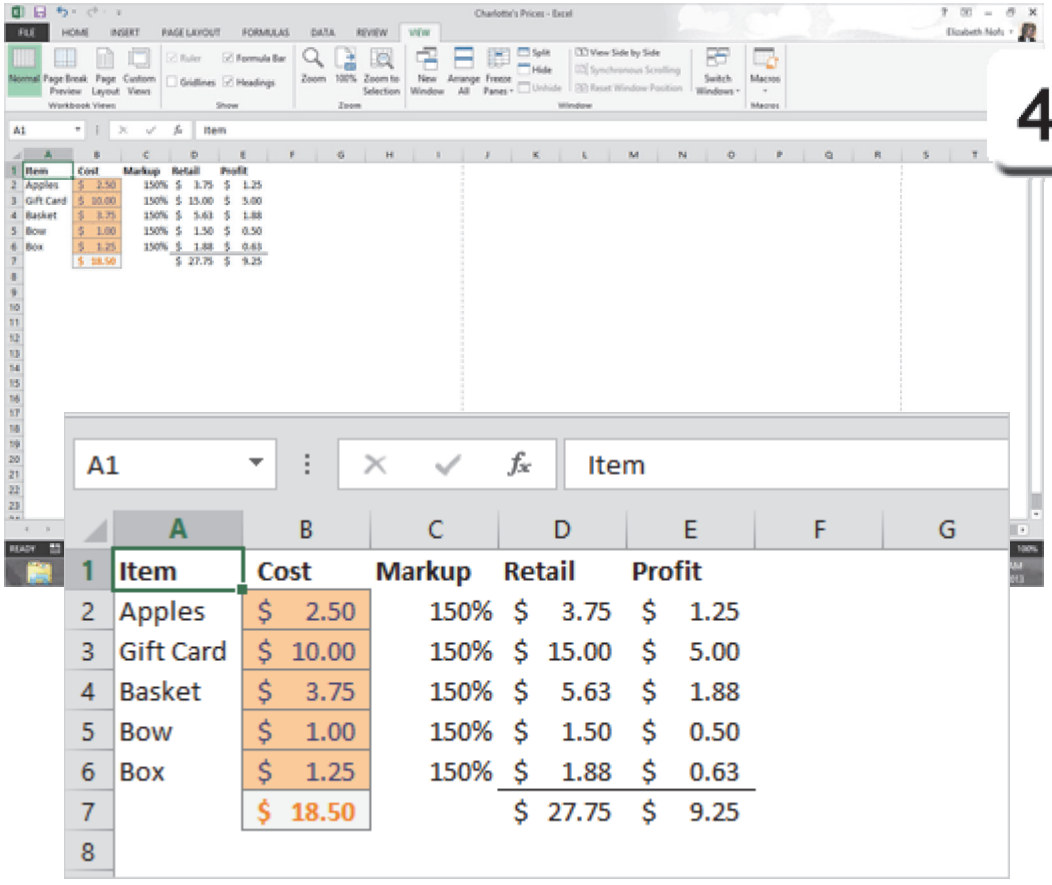
4. Try This: Show/Hide the Gridlines
The sample Excel spreadsheet is still open.
The workbook is in **Normal** View.
Go to **View->Show.**
Remove the check mark: Gridlines.



What Do You See? The Gridlines are hidden in this View. Keep going...

Memo to Self: These steps **View** (or hide) the gridlines on the screen. The options to **Print** the gridlines are on the Page Layout Ribbon.

View -> Show-> Gridlines

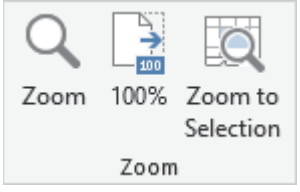


Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Show/Hide the Gridlines

Change the View

The **Zoom** controls let you see things better on screen, especially late at night and it's already been a long day....

5. Try This: Use the Zoom Options
The sample Excel spreadsheet is still open.
The workbook is in **Normal** View.
Select Cell F7.
Go to **View->Zoom to Selection.**
The default size for Zoom to Selection is 400%.
Impressive.

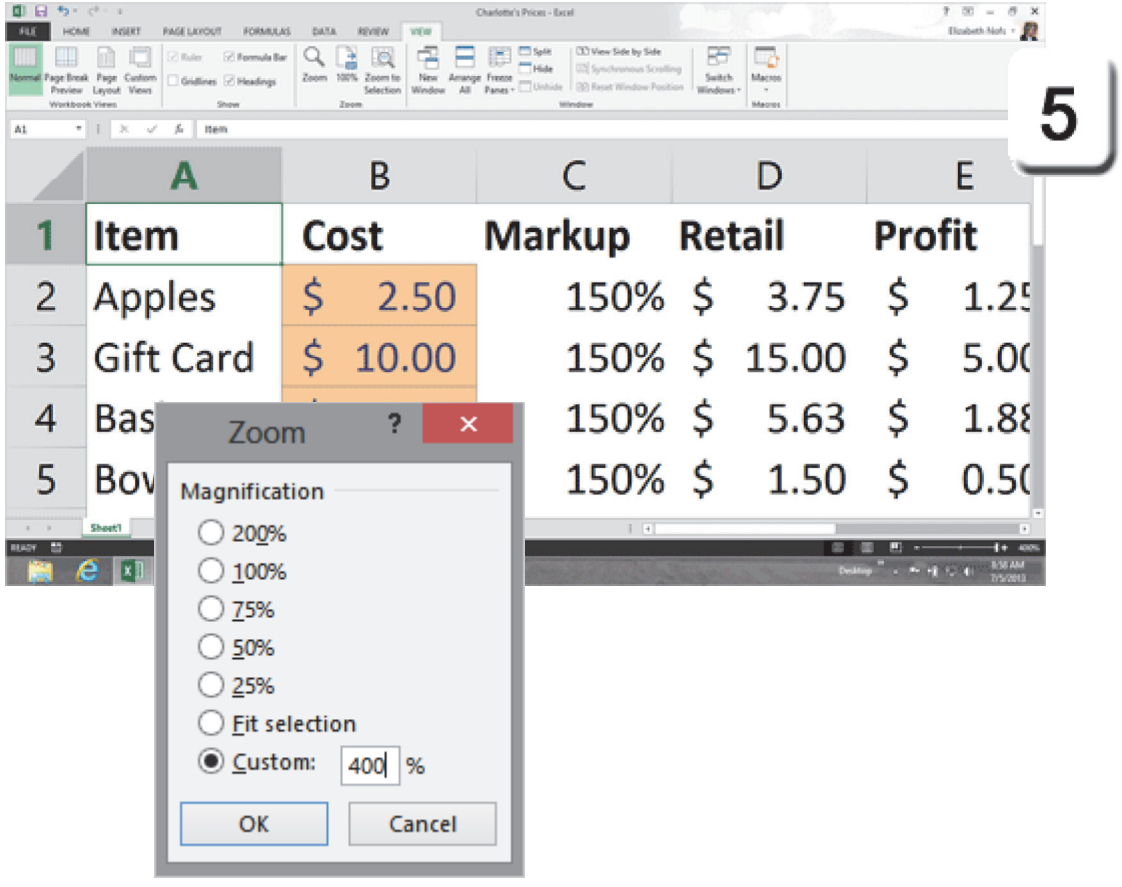


What Do You See? If you choose **Zoom**, you can click on a **Magnification** from the list or type your own if you wish.

Select 100% and click **OK**.

Keep going...

View -> Zoom



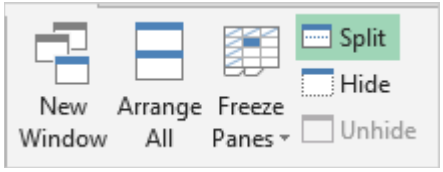
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Zoom

Take Three

View: Split Screen

Say you had a complex spreadsheet with a lot of information. You can **Split** the spreadsheet into four different **Views**. Each split has its own set of scroll bars so each split can have a different View of your data.

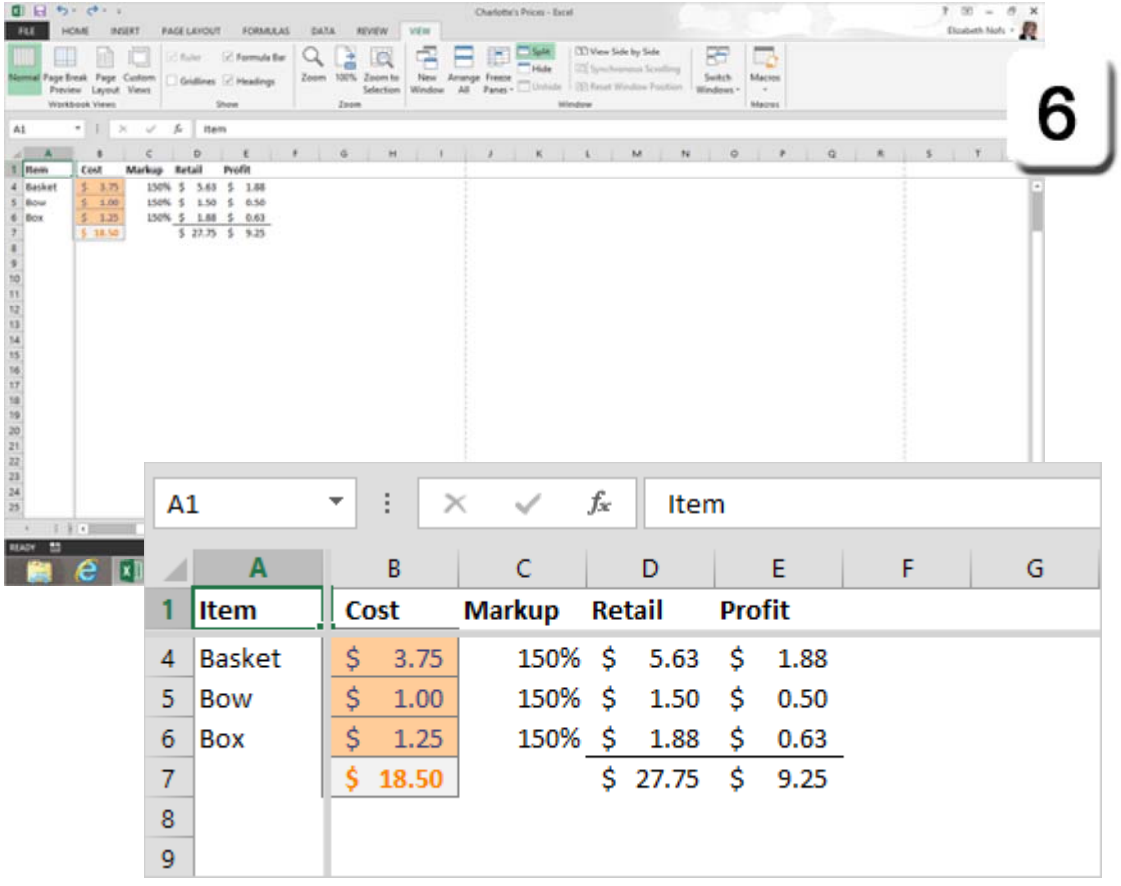
6. Try This: Use Split Screen
The sample Excel spreadsheet is still open.
Select Cell A1.
Go to **View->Window-> Split.**



What Do You See? The default split is in quarters. You can drag the splits to the Rows and Columns that make sense.

Keep going...

View -> Window-> Split

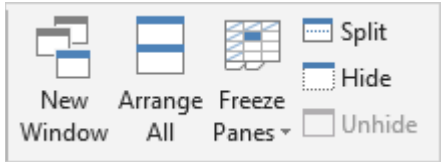


Take Three

View: Freeze Panes

Freeze Pane is similar to **Split**, however the Pane is "frozen," or locked into place. A Pane can be a Row, a Column or a Range.

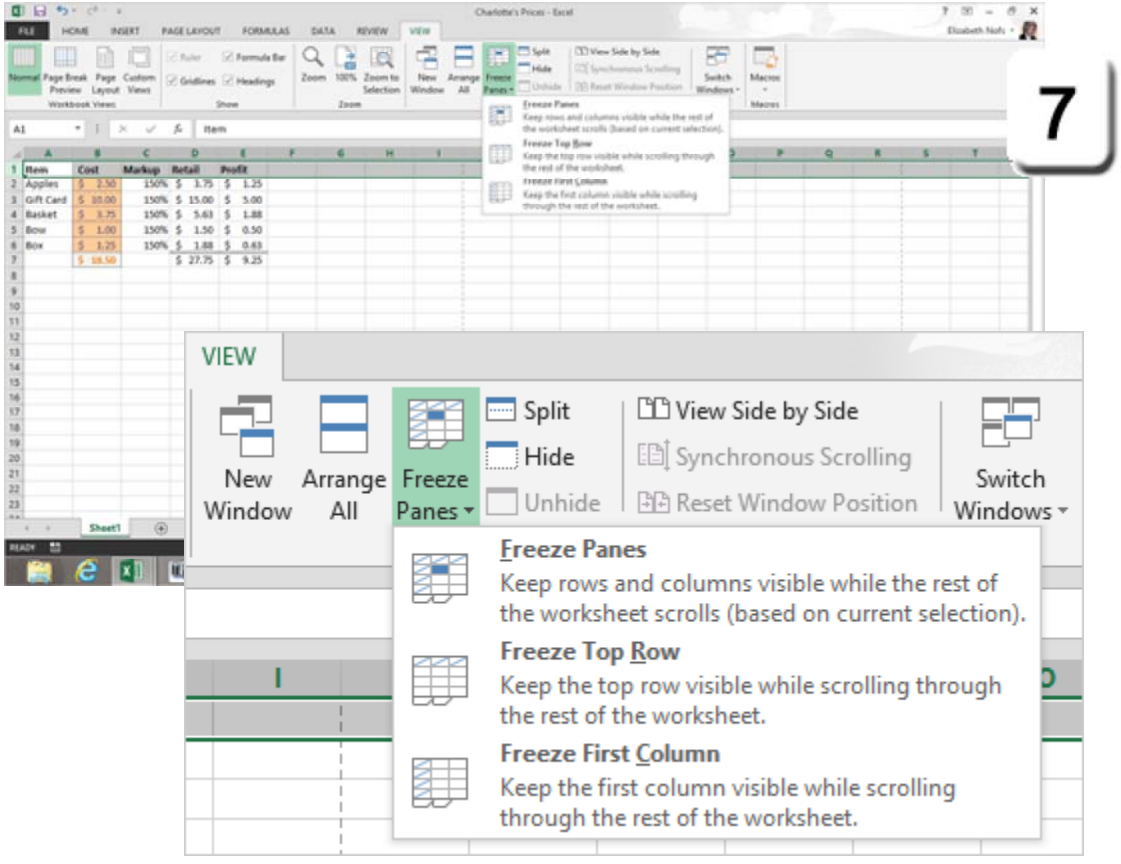
7. Try This, Also: Freeze the Top Row
Open a sample Excel file, first.
The workbook is in **Normal** View, no Split.
Go to **View->Window-> Freeze Panes.**
Select: Freeze Top Row



What Do You See? The top row is frozen. It will remain anchored at the top of the screen as you scroll down to, say Row 57.

Keep going...

View -> Window-> Freeze Panes



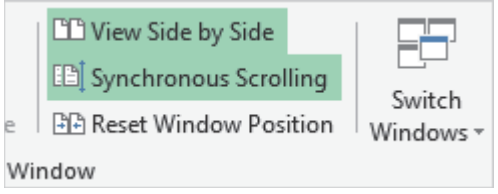
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Freeze Panes

Take Three

View: Side by Side

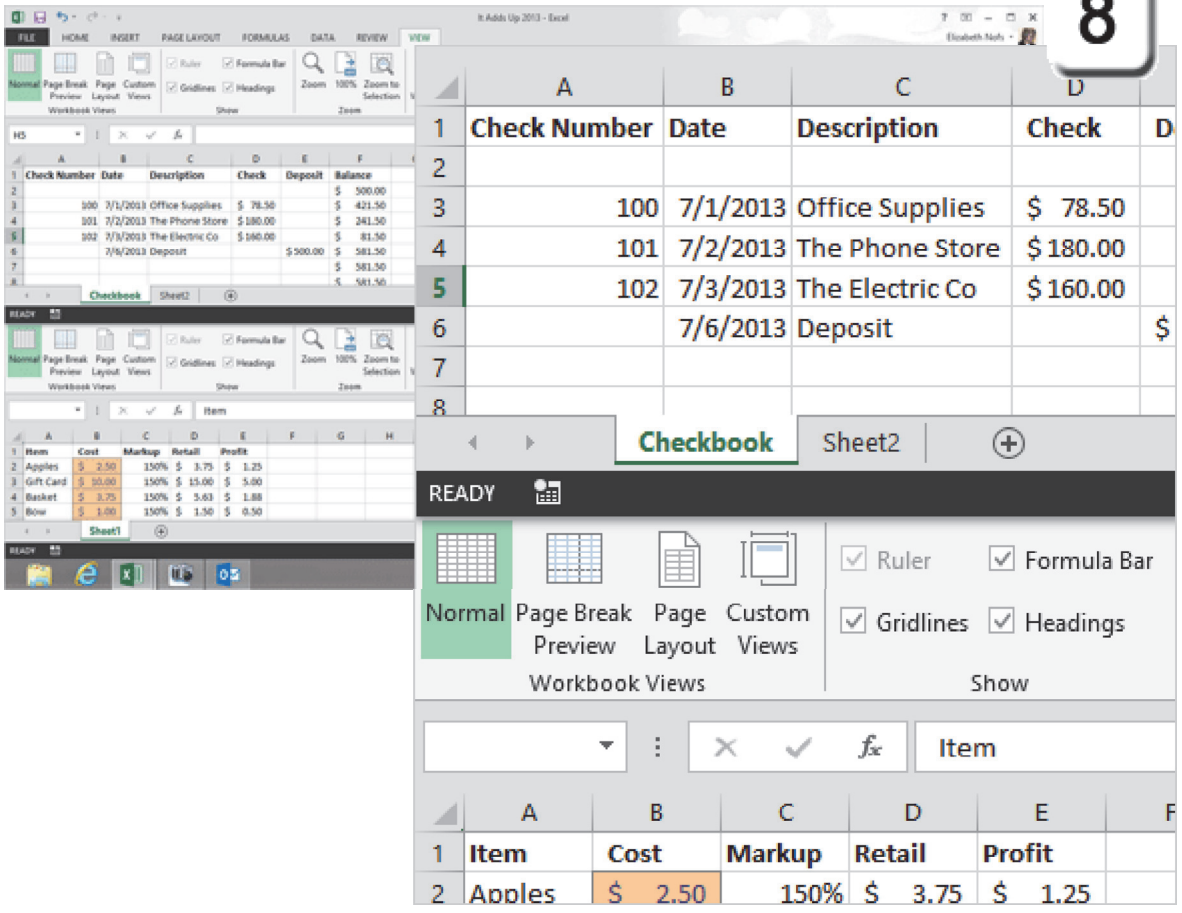
Say you had two Excel files open at the same time. The default View is Full Screen so that you cannot see the spreadsheet behind it. You can also arrange the View **Side by Side.**

8. Try This: View Side by Side
Open two sample Excel files, first.
Each workbook is in Normal View.
Go to **View->Window-> Side by Side.**
In the example on this page, there are two spreadsheets displayed horizontally.



Memo to Self: The purpose of this lesson is to learn the different Views. It is NOT necessary that your spreadsheets MATCH the ones on these pages.

View -> Window-> Side by Side



Take Three

View: New Window

Say your Excel workbook has a two or more spreadsheets that you are working on. You can open any spreadsheet in a **New Window**.

Before You Begin:
Open the sample file: Checkbook 2013.
This workbook has two spreadsheets: Checkbook and Salary.

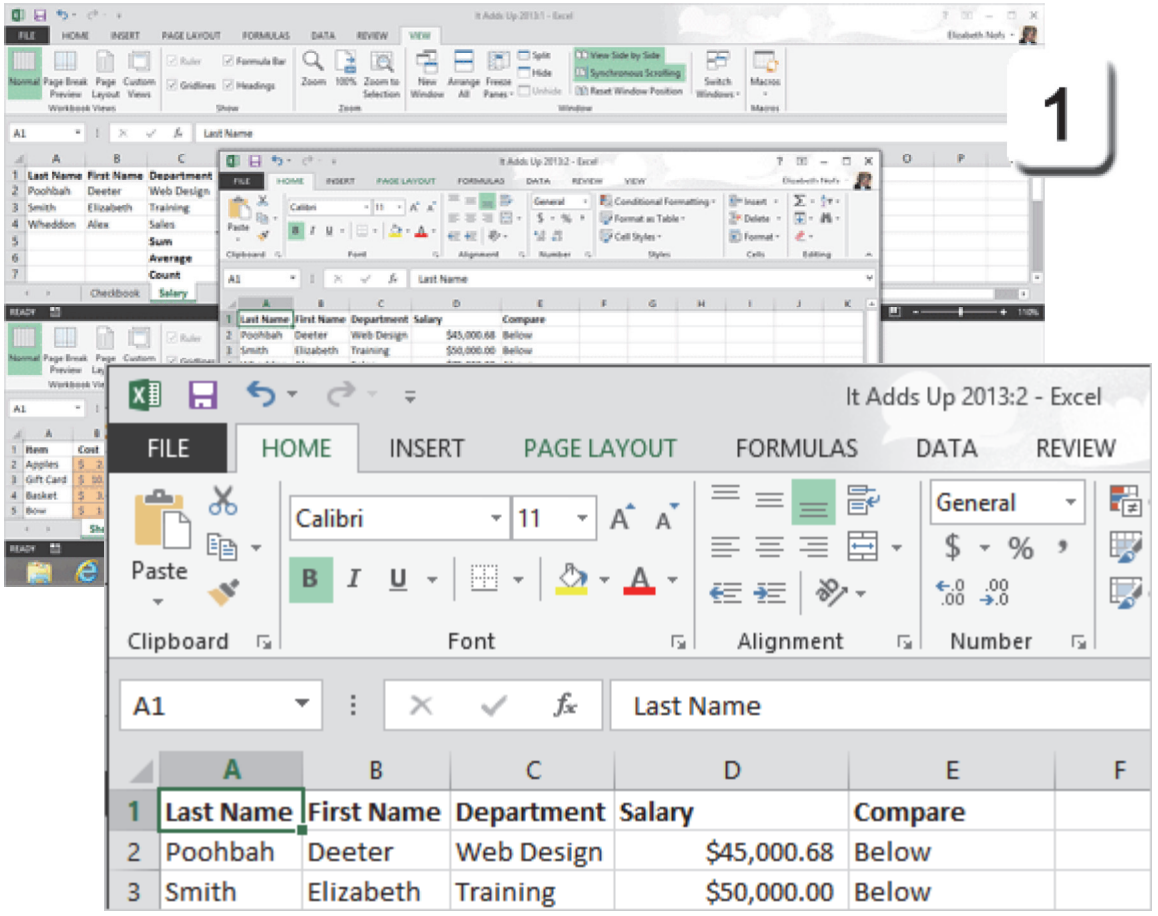
1. Try This: View in a New Window
Select a spreadsheet: Salary.
Go to **View->Window.**
Click on **Open in New Window**.

What Do You See? In this screenshot on this page, the Salary spreadsheet opened in a **New Window**. The name is displayed as CheckBook 2013: 2, indicating that is a second copy, or view, of the data.

Keep going...

Memo to Self: The Salary spreadsheet is still a part of the sample file, CheckBook 2013. When you edit the data in CheckBook 2013:2 it will be saved in the original CheckBook 2013 file that you began with.

View -> Window-> New Window



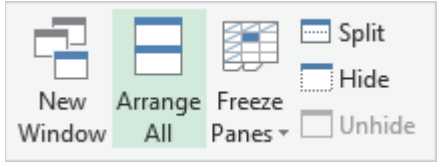
Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: View in New Window

Take Three

View: Arrange All

OK, OK, there are now three Windows open. Here is an option to help you **Arrange All**.

2. Try This: Arrange All of the Windows
Go to **View->Window-> Arrange All.**

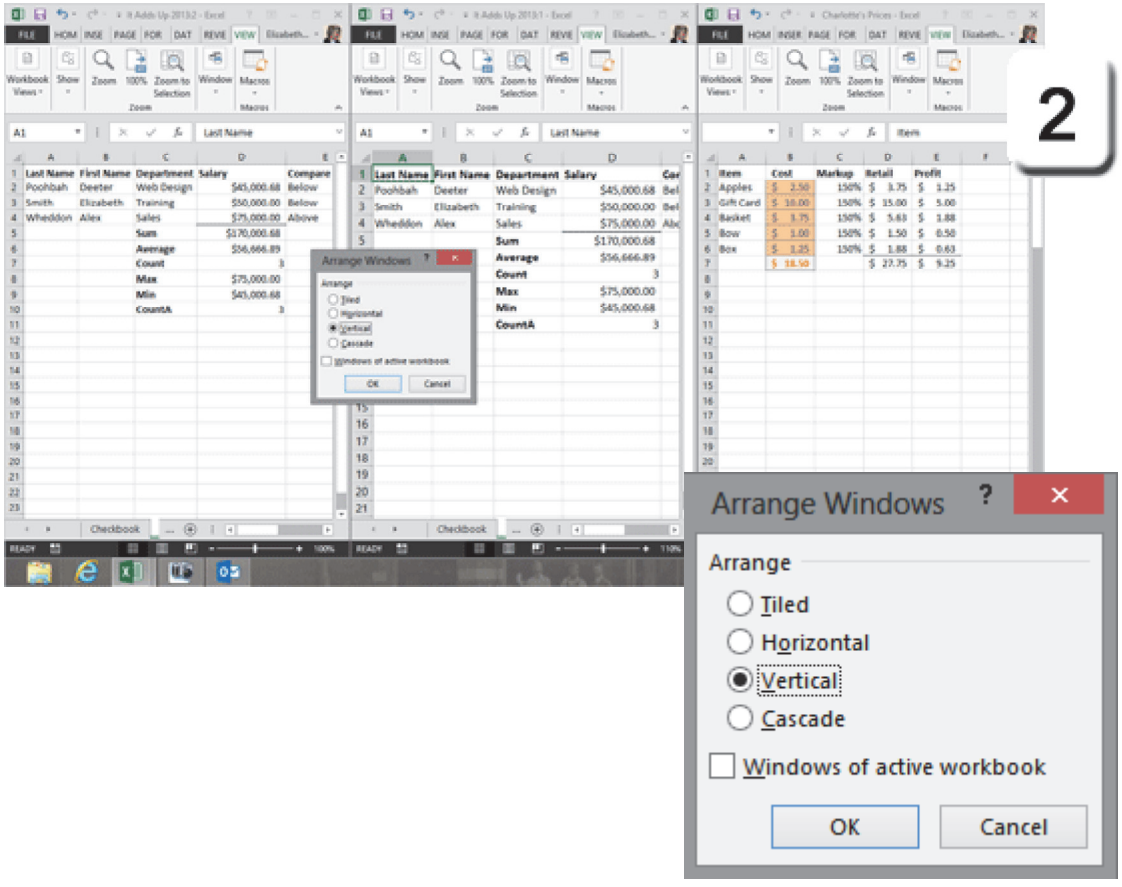


What Do You See? When you click on **Arrange All**, you will be prompted to choose whether you want to see the spreadsheets:
Tiled
Horizontal
Vertical
Cascade
Windows of active workbook

When you check Windows of active workbook Excel opens all the files you are currently working on Full Screen-no more Views.

Keep going...

View -> Window-> Arrange All



View: Switch Windows

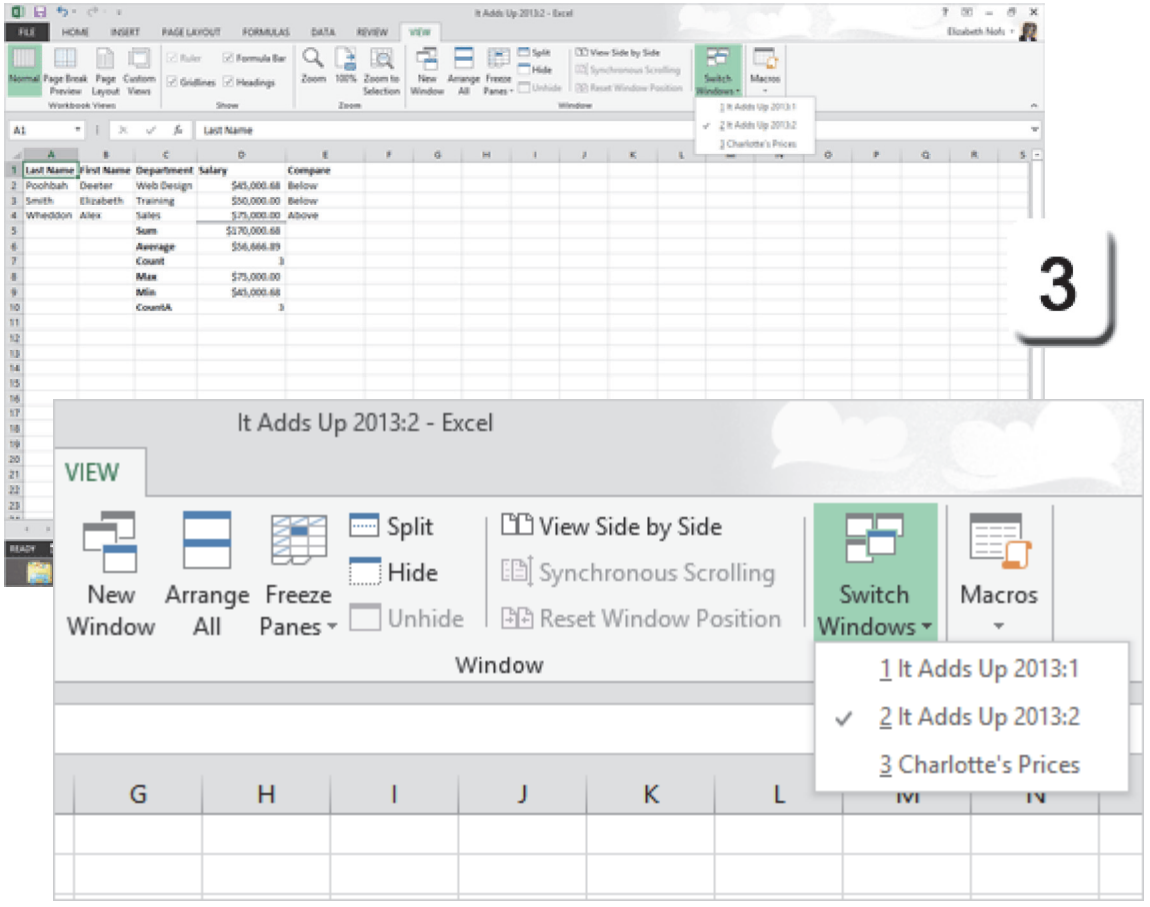
Say you had three workbooks open at the same time. Each file is open in Full Screen. You can use Switch Windows to choose which spreadsheet you would like to work on.

3. Try This: Switch Windows
Go to **View->Window-> Switch Windows.**
The name that you selected will be the Window on top, the active workbook.

What Do You See? There should be two copies of CheckBook 2013 open: one for the Check Book spreadsheet and the second for the Salary.



View -> Window-> Switch Windows



Exam 77-420 Microsoft Excel 2013
1. Create and Manage Worksheets and Workbooks
1.4 Customize Options and Views for Worksheets and Workbooks: Switch Windows

Take Three

One More Visual

This lesson has focused on many, many ways for representing the data visually.

The last example will show how to create a Screenshot, or a picture of another Window and add it to your spreadsheet.

1. Before You Begin: Open a Window!
Open your **Internet Browser.**
The example on this page is Internet Explorer. There is a webpage open that shows this course: www.comma2013.com.

Still Before You Begin: Please open a new, blank spreadsheet.

Keep going...

Insert -> Illustrations-> Screenshot

1



Take Three

Create a Screenshot

2. Try It: Insert a Screenshot
Go to **Insert->Illustrations.**
Click on **Screenshot**.

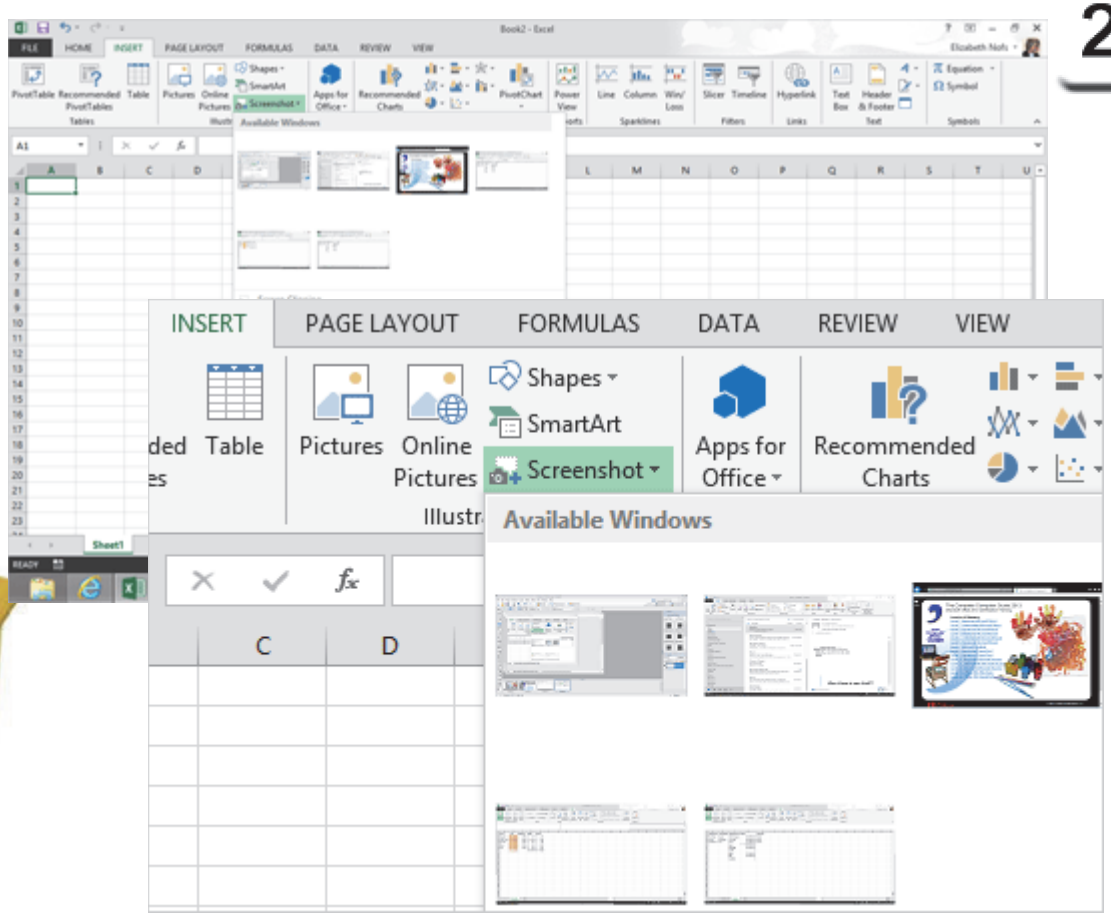
What Do You See? Each Window that you have open will be shown in the gallery.

Click on any one of the Available Windows.
Keep going...

Memo to Self: A **Screen Clipping** is a way to outline and select part of a Window.

Insert -> Illustrations-> Screenshot

2





Take Three

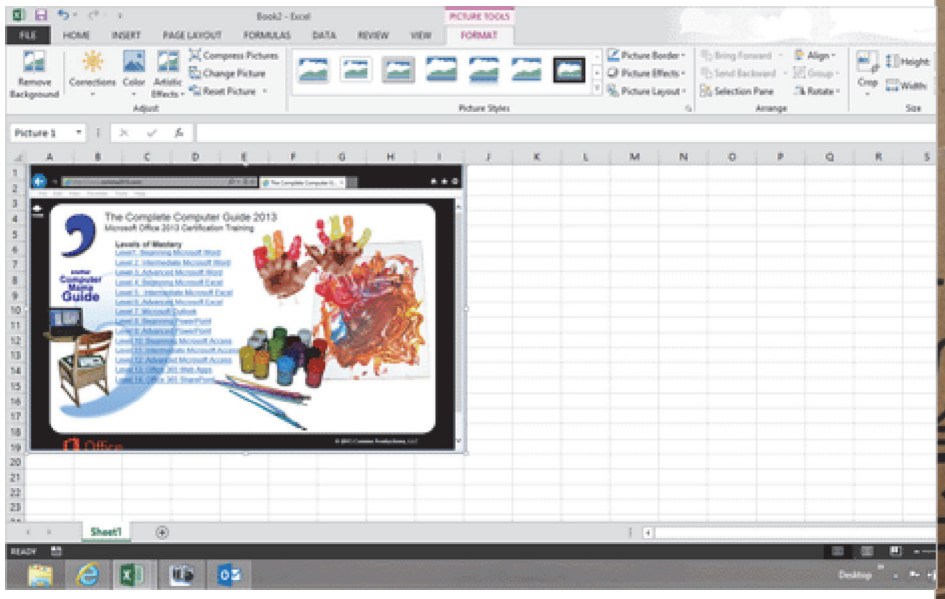
Edit the Screenshot

A Screenshot is a picture. You can edit the Screenshot with the Picture Tools.

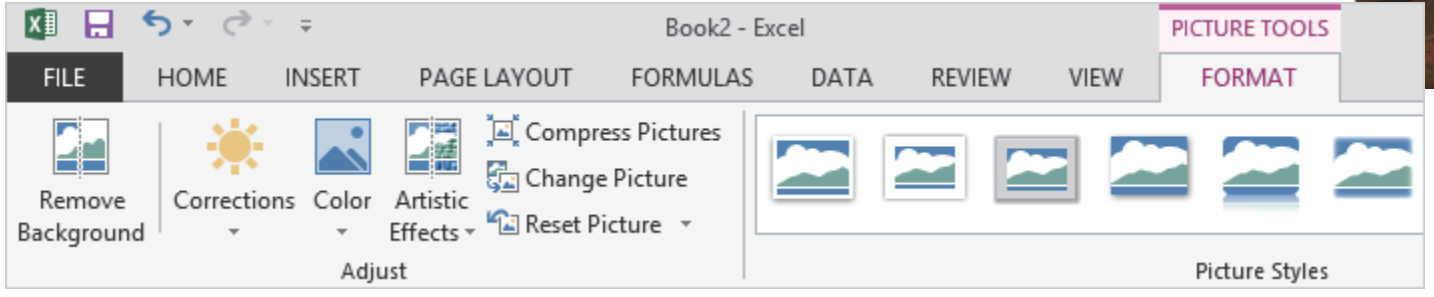
3. Try This: Edit the Screenshot
Select the Screenshot.
Go to **Picture Tools -> Format->Size**.
Edit the **Width**: 4.

Very good. This was just a demo. You do not have to save this spreadsheet.

Picture Tools -> Format->Size





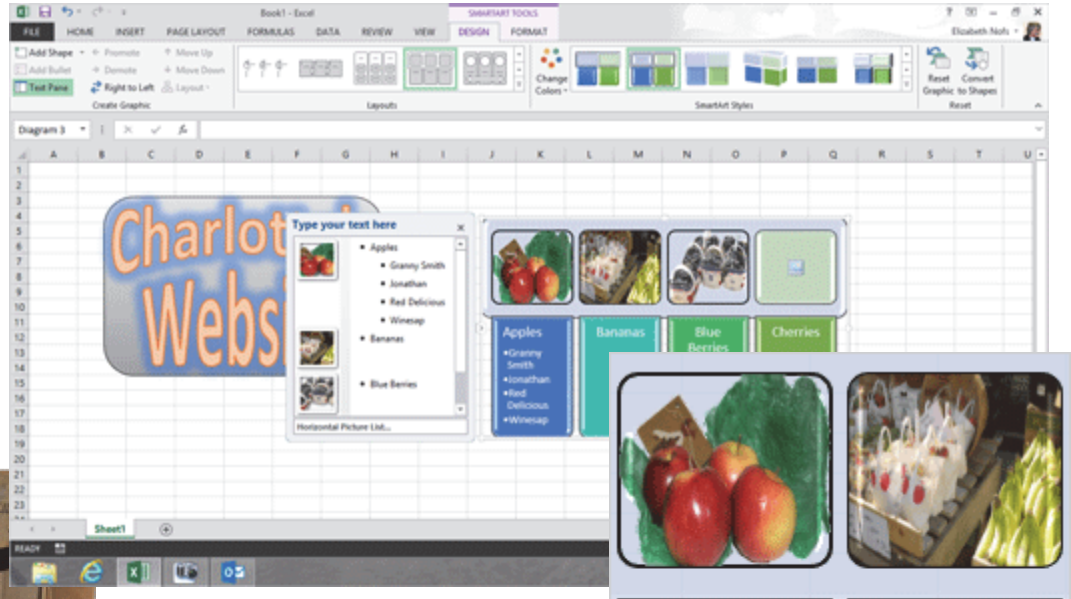


Exam 77-420 Microsoft Excel 2013
5. Create Charts and Objects
5.3 Insert and Format an Object 5.3.3 Format a Screenshot

Visualizing the Data

Our discussions on **Visualizing Data** in Microsoft Excel included Pictures, Shapes, SmartArt and Views.

Well, you done good.
You get the cookie.











Appendix: Cell Formats

This Beginning *Guide* demonstrated how to format Cells using the options on the **Home** Ribbon. All of these commands, and more, are available when you click on **More**.

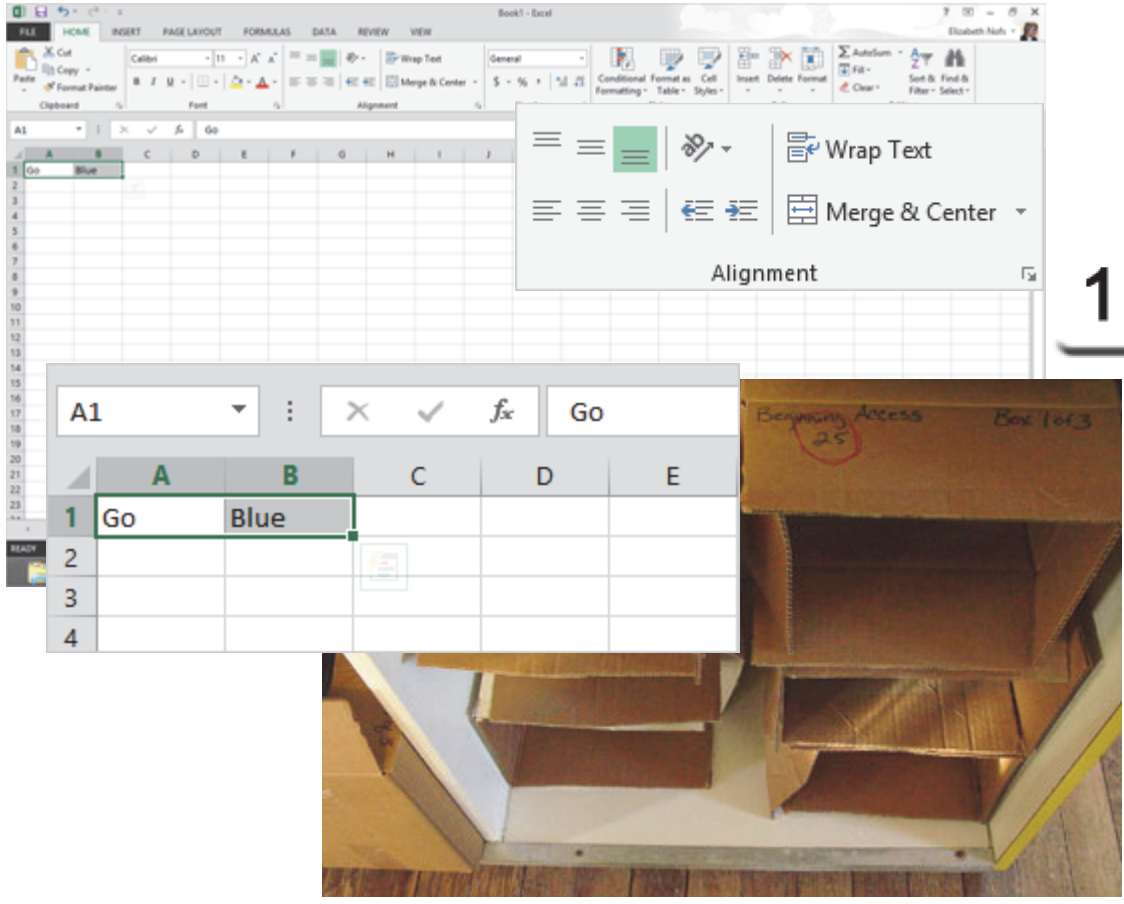
"More" is the little arrow in the bottom right corner of any Group. This example will show the Alignment Group.

Before You Begin: Open a new, blank spreadsheet. Enter the following:
Cell A1: Go
Cell B2: Blue

1. Try This: Find the Options
Select Cell A1:B2
Go to **Home -> Alignment->More**.

Keep going...

Home -> Alignment->More



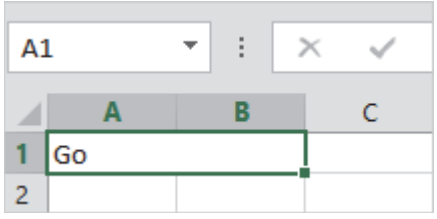
1

Format Cells, and More

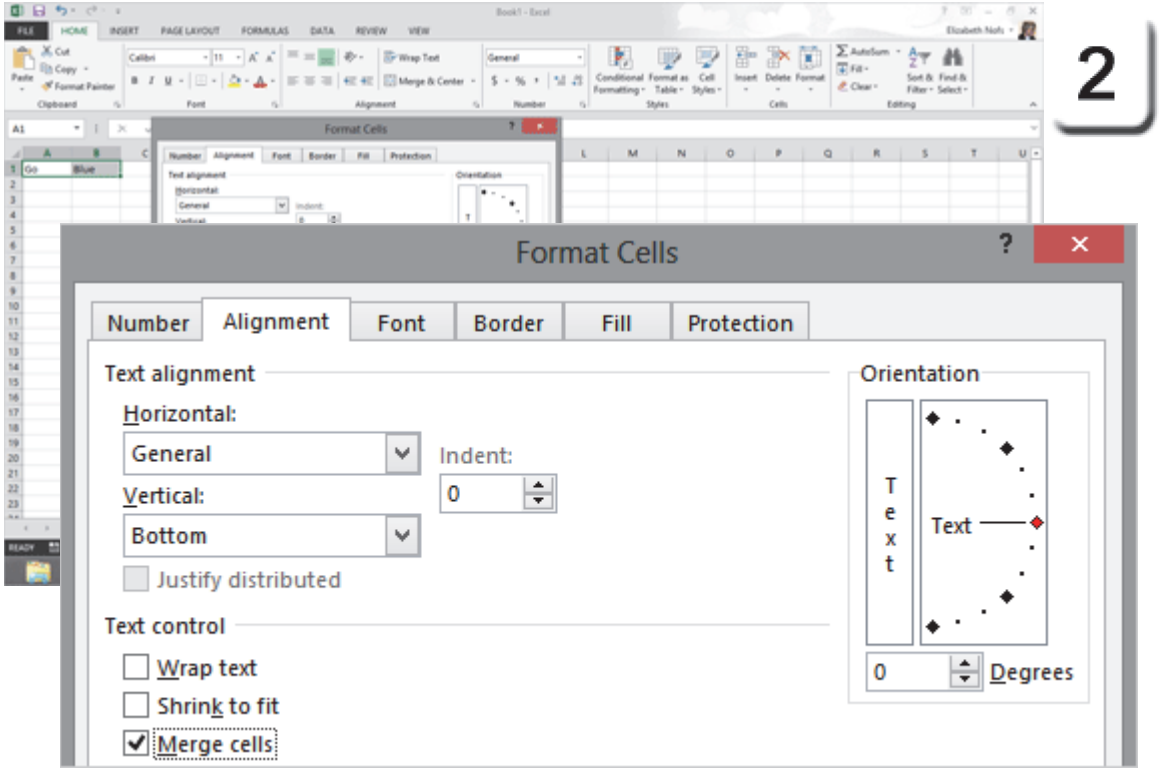
The options Format Cells include:
Number
Alignment
Font
Border
Fill
Protection

2. Try This: Edit the Alignment
Go to the **Alignment** Tab.
Go to **Text Control**.
Check: **Merge Cells**.
Click **OK**.

What Do You See? When the two Cells are merged you will be prompted that only the data in Cell A1, the upper left Cell, will be kept. The rest will be discarded.
Click **OK**.



Home -> Alignment->More



Memo to Self: On the **Home** Ribbon, the **Orientation** is set at specific Degrees: 45, 90, -45, and -90 Degrees. In the Advanced Alignment Options. the Orientation can be adjusted with the little control (the red diamond) or by entering a number for the Degrees.

Take Three

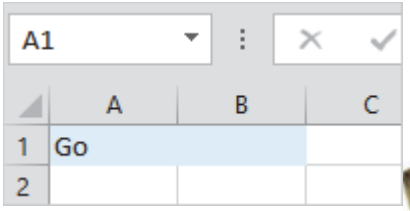
Using Cell Styles

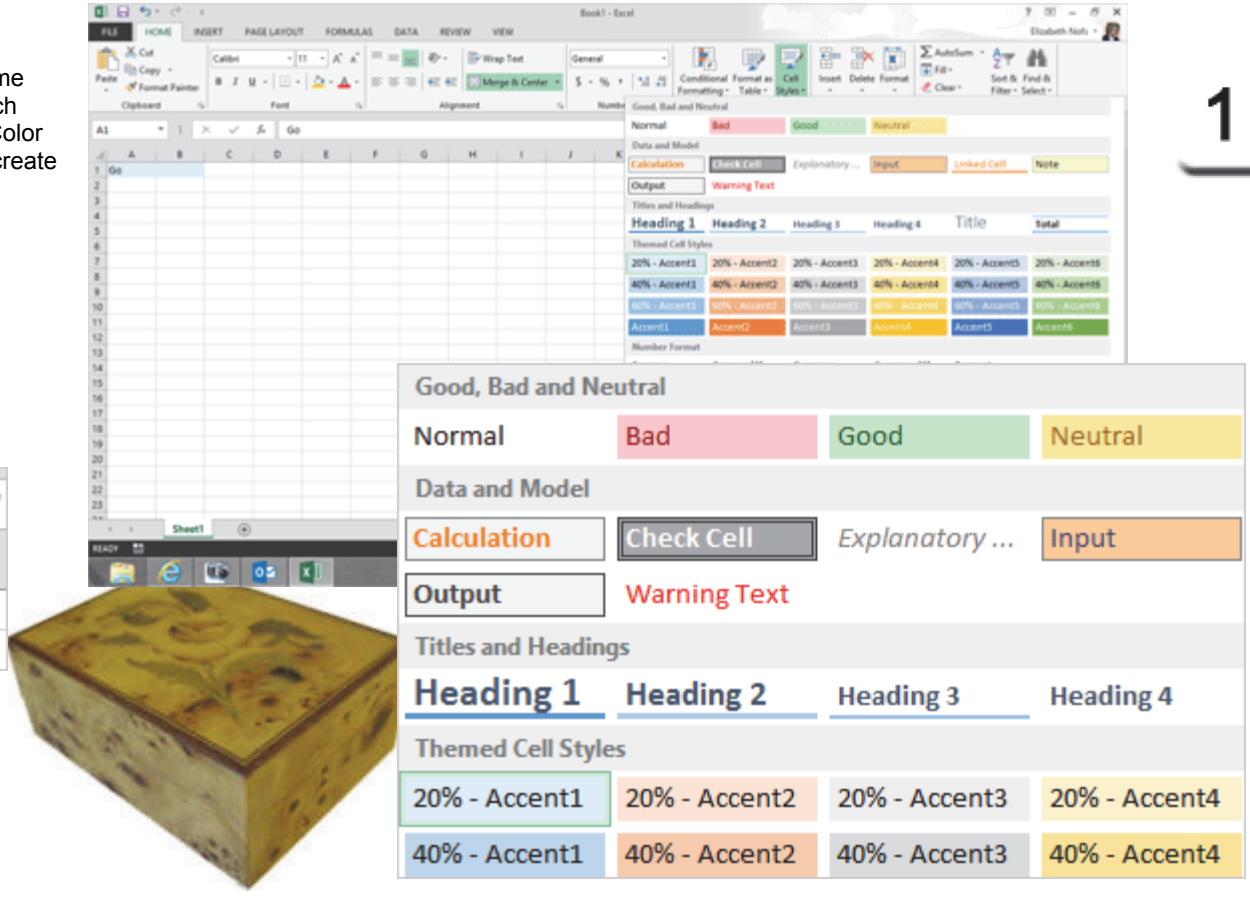
Earlier in this *Guide* we used the Home Ribbon to apply a Style to a Cell. Each Style applies formatting to the Font Color and Size, Borders and Fill. You can create your own Cell Style if you wish. First, review the Cell Styles.

1. Try It: Apply a Cell Style
Go to **Home -> Styles->Cell Styles.**
Go to **Themed Cell Styles.**
Select: 20% Accent 1

Keep going, please...

Home -> Styles->Cell Styles





Exam 77-428 Microsoft Excel 2013 EXPERT
2. Apply Custom Formats and Layouts
2.3 Apply Custom Styles and Templates: Create and Modify Custom Cell Styles

Take Three

Modify the Cell Style

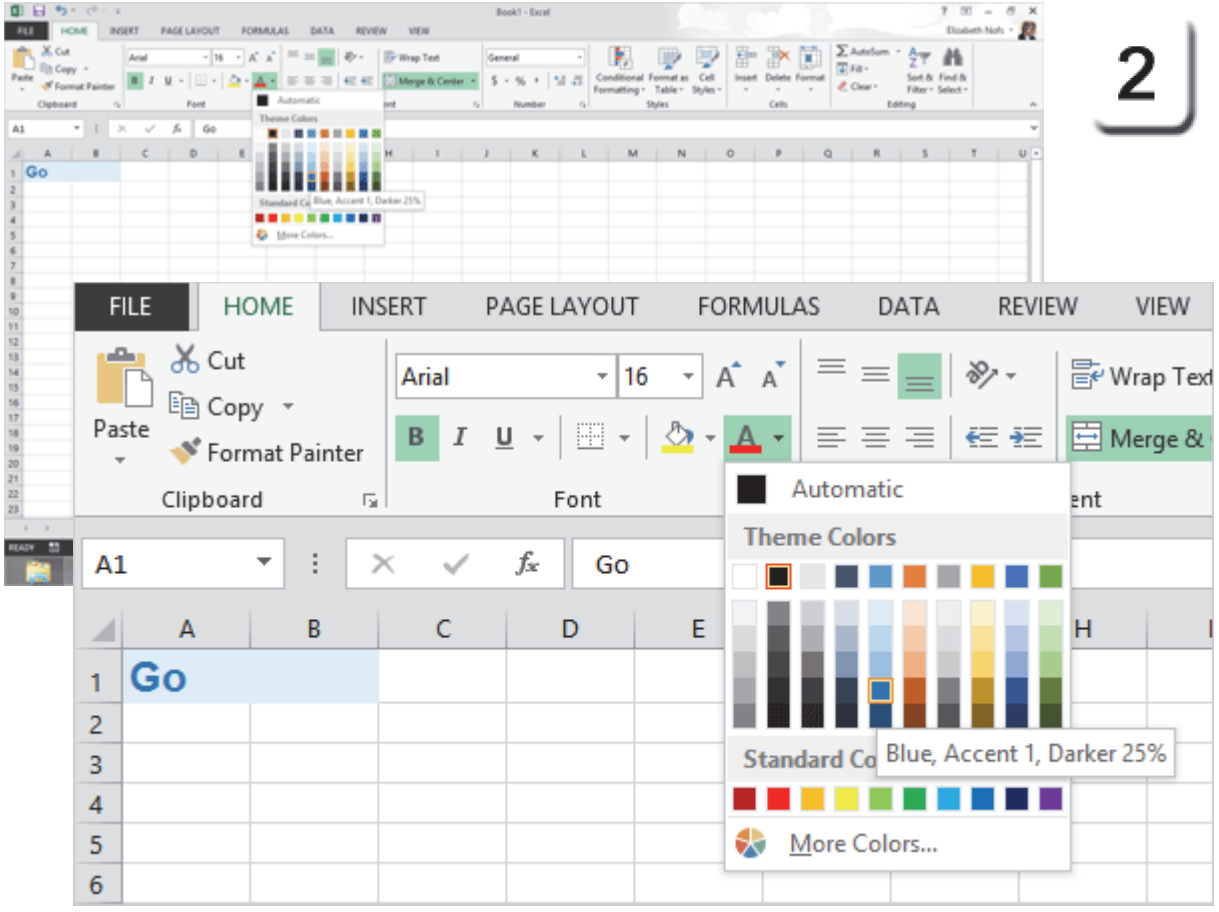
2. **Try This: Format the Cell**
Select Cell A1.
Go to **Home->Font.**
Font: Arial
Size: 16
Bold
Borders: All
Fill: Blue Accent 1, Darker 25%

So far so good. Keep going, please...



Home -> Font

2

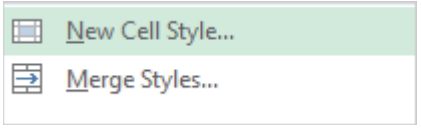


Exam 77-428 Microsoft Excel 2013 EXPERT
2. Apply Custom Formats and Layouts
2.3 Apply Custom Styles and Templates: Create and Modify Custom Cell Styles

Take Three

Add A New Style to the List

3. Try It: Create a New Style
Select Cell A1.
Go to **Home -> Styles->Cell Styles.**
Click on **Create New Style.**

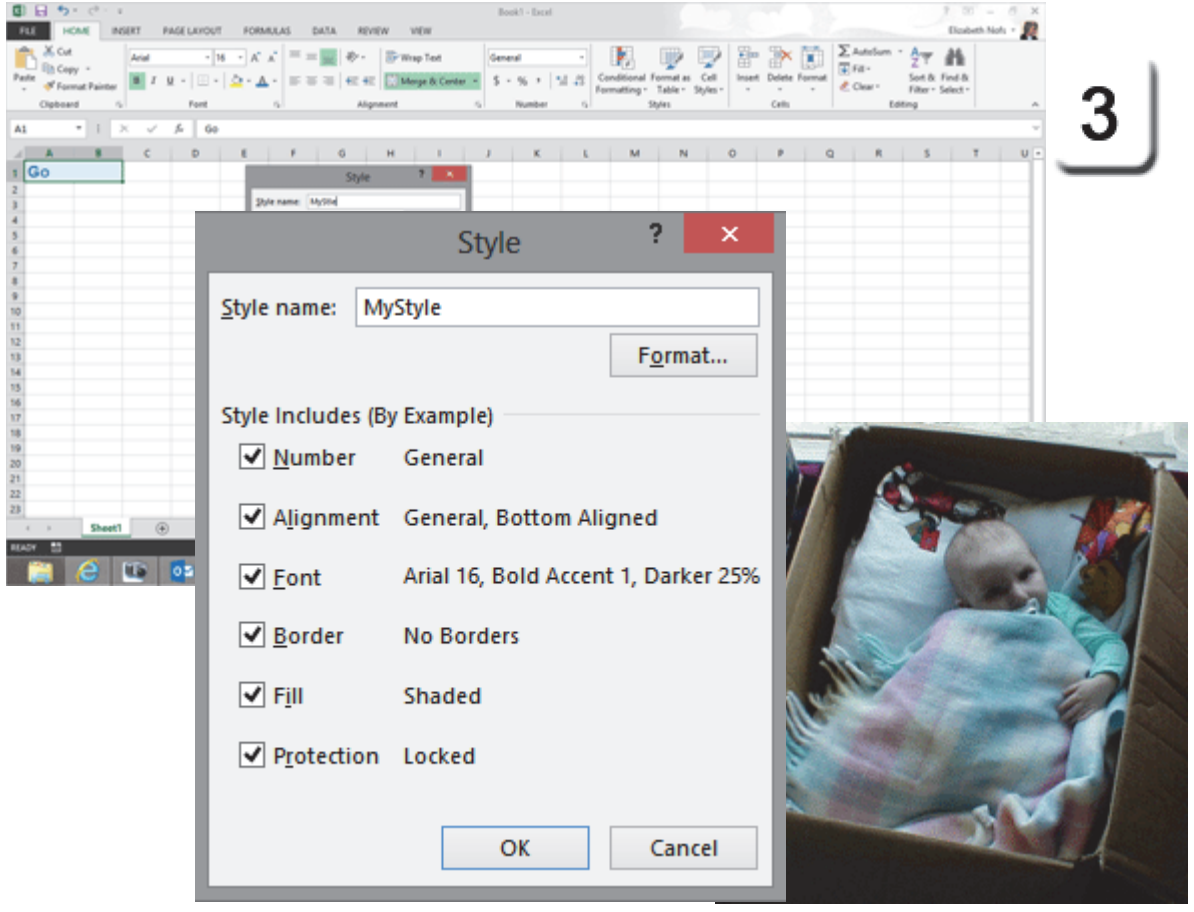


Enter the Style Name: MyStyle
Include all of the options.
Click **OK**.

Keep going...

Memo to Self: If you click **Format** in this little Style sheet, you will go to the **Format Cells** tabs we just looked at on page 208.

Home -> Styles->Cell Styles->Create New Style



3

Exam 77-428 Microsoft Excel 2013 EXPERT
2. Apply Custom Formats and Layouts
2.3 Apply Custom Styles and Templates: Create and Modify Custom Cell Styles

Use Your Custom Cell Style

4. Try It: Apply a Custom Style
Select Cell A1.
Go to **Home -> Styles->Cell Styles.**
Click on **MyStyle.**

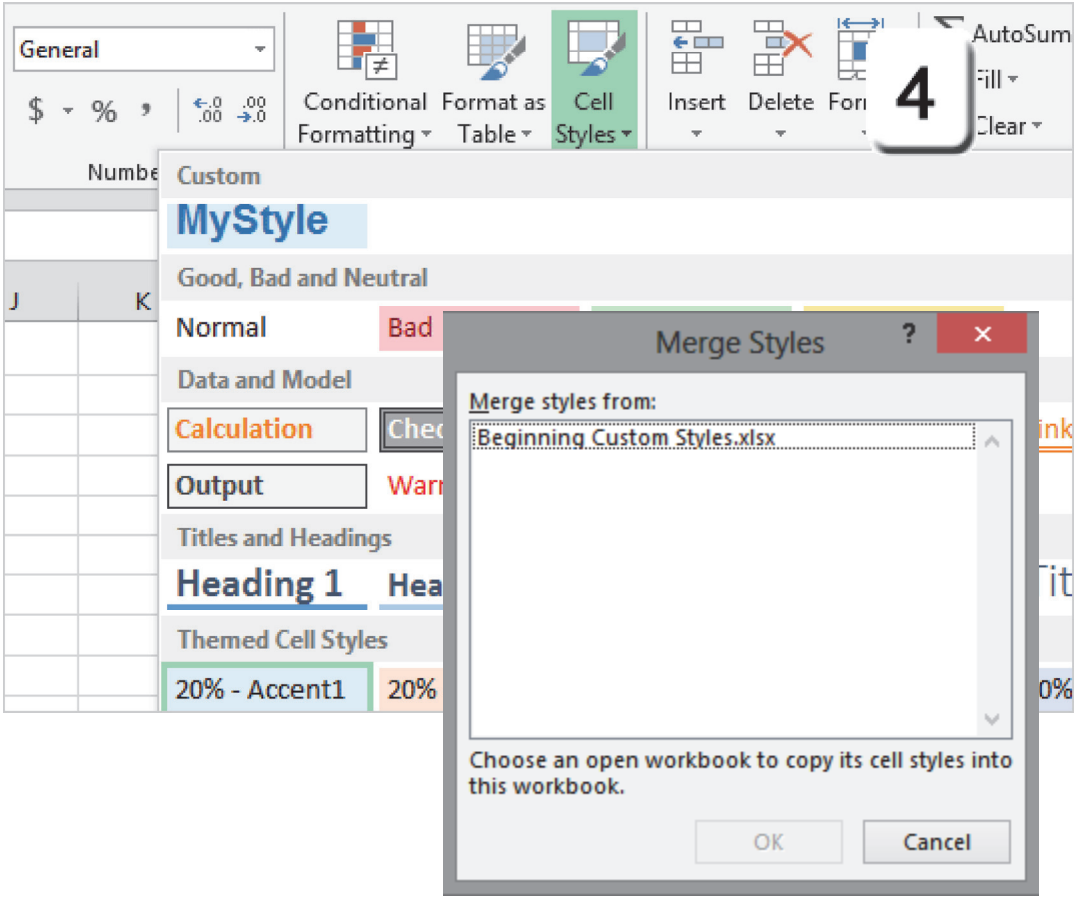
What Do You See? There will be a new row in the Style Gallery for the Custom Styles.

Memo to Self: Cell Styles are saved in this workbook. You can import the Styles from a different workbook if you wish. The steps are:

1. Open a file that has the Styles you want.
2. Go to **Home->Styles->Cell Styles->Merge Styles**.
3. Select the file and click **OK**.

OK, OK, that's enough for now.
You done real good.

Home -> Styles->Cell Styles->Custom



Exam 77-428 Microsoft Excel 2013 EXPERT
2. Apply Custom Formats and Layouts
2.3 Apply Custom Styles and Templates: Create and Modify Custom Cell Styles

Practice

Lesson 7: SmartArt and Graphics

Before You Begin: Open a new, blank spreadsheet.
Try This: Do the following steps

1. Insert a shape: select the Cloud shape
2. Resize the shape to be 2” tall by 3” wide
3. Add the following text to the shape: Rainy Day Savings
4. Format the Shape Style to Subtle Effect—Blue Accent 1
5. Format the Shape Outline to 3pt Weight.
6. Format the text Rainy Day Savings as WordArt.
   Select WordArt Gradient Fill Gray Outline, Gray
7. Format the WordArt to be size 28 font
8. Format the WordArt with the Transform Effect.
   Select Button.
9. Format the WordArt with the Shadow Effect.
   Select Perspective Diagonal Upper Right



10. Insert a Smart Art Diagram. Select Basic Pyramid
11. Enter the following. Each item is a new bullet point.
    Track your Spending
    Stop paying late fees
    Care for items so they last
    Avoid interest payments
12. Format the Smart Art Layout: Pyramid List
13. Format the Smart Art Colors: Choose a colorful format
14. In the Text Pane, add a new item above Care for Items.
    Add the text Cook at Home.
15. Add the text Eat Leftovers under Cook at Home.
    Demote Eat Leftovers one level.
16. Use the command Add Shape after Avoid Interest Payments.
    Add the text Plan and Research major purchases.
17. Demote Plan and Research major purchase one level.
18. Use the Move Down command to move Track your Spending to the bottom of the pyramid.
19. Add a header to your spreadsheet.
    Type the text Rainy Day Savings and the date.
20. Set the zoom to 200%
21. Save your work as Beginning Excel Practice Activity 4.

Test Yourself

1. The insert Shape command is on which Ribbon?
a. Add
b. Insert
c. View
d. Tools
Tip: Beginning Excel, page 170

2. Selecting a Shape brings up which Ribbon?
a. Shape Tools
b. Drawing Tools
c. Formatting Tools
Tip: Beginning Excel, page 171

3. Which of the following have Styles? (Select all correct answers.)
a. Pictures
b. Shapes
c. Cells
d. WordArt
e. SmartArt
Tip: Beginning Excel, page 174, 182

4. Which of the following is a type of SmartArt? (Select all correct answers.)
a. List
b. Process
c. Cycle
d. Hierarchy
f. Matrix
Tip: Beginning Excel, page 180

5. Which of the following is a SmartArt Tools Ribbon? (Select all correct answers.)
a. Design
b. Format
c. Layout
Tip: Beginning Excel, page 182

6. The commands to change the colors of SmartArt are on which Ribbon?
a. SmartArt Tools-> Design
b. SmartArt Tools-> Format
Tip: Beginning Excel, page 183

7. How do you add additional shapes to SmartArt diagram? (Select all correct answers.)
a. Type a new line in the text pane
b. Use the command Smart Art Tools-> Design->Create Graphi**c->**Add Shape
Tip: Beginning Excel, page 186

8. Which of the following is a Workbook view? (Select all correct answers.)
a. Normal
b. Page Layout
c. Page Break Preview
d. Outline
Tip: Beginning Excel, page 19**3**



Beginning Excel Skill Test

Before You Begin: Start Microsoft Excel 2013.

Please do the following steps:

1. Open the sample Excel workbook: Sample Test.xls

2. Go to the Price Sheet and Format cell A1 as Bold and Italic

3. Go to the Price Sheet and move all of the cells (A1 through D8) down one row .

4. Go to the Price Sheet spreadsheet, select cell B10 and use Autosum to add cells B6 through B9

5. On the Price Sheet spreadsheet, select cell B9 and add a bottom border.

6. On the Price Sheet spreadsheet, select cell F5 and add the label "Quantity." Format all of Row 5 as Bold and Blue.

7. On the Price Sheet spreadsheet, select cell F6 and entry 5 for the quantity. Use the Autofill handle to add that quantity for the other items.

8. On the Price Sheet spreadsheet, select cell G5 and add the label Total. Select cell G6 and multiply the Retail price times the Quantity.

9. On the Price Sheet spreadsheet, select cell G6 and use the Autofill to add that formula to G7 through G9

10. Rename the Price Sheet spreadsheet to be "Current Prices."

11. On the Salaries sheet hide Columns B and C.

12. Go to the Salaries spreadsheet and resize Column D.

13. On the Salaries spreadsheet, select D5 and use AutoSum to add the salaries. Add a bottom border to cell D4.

14. On the Salaries spread sheet add a page header with the name of the workbook, the name of the spreadsheet and the current date.

15. On the Salaries spreadsheet add a page footer that includes: Prepared By Your Name
Page Numbers

16. Save the file as Your Name Beginning Excel Skill Test and submit to your instructor.



Beginning Microsoft Excel 2013: Glossary

Microsoft Office Specialist (MOS): Exam 77-420 Excel 2013

Alignment (cell)—how the text appears in relation to the edges of the cell *pg.34*

Angle—rotation or orientation of text within a cell *pg.35*

Audit (an equation)—review the inputted formulas and references for errors *pg.85*

Auto Sum—automatically creates an addition equation using the contents of the column above *pg.89*

Cell Styles—preset formatting applied to cells, includes fill color, font color, borders, etc. *pg.67*

Cell—where a row and column in a spreadsheet intersect, named by the row number and column letter, such as A1 or F52 *pg.29*

Chart layout—formats size, color and position of chart elements such as Title, Axis, Title, Legend, Data Labels and Data Table *pg.112*

Chart—visual representation of data *pg.105*

Circular reference—an equation or function that refers to itself *pg.91*

Clipboard—a helper application that stores text or pictures to be pasted. Activated with use of the cut or copy commands. *pg.38*

Compress (pictures)—reduces the size of a picture's storage size, but not it's visible size *pg.159*

Crop—trims the edges of the picture *pg.151*

Currency (formatting)—numbers are formatted as dollars and cents, regardless of typed input *pg.54*

File formats—refers to the type of coding used in a file, defining what program(s) will open the file and how the program treats the contents *pg.72*

Font— the type face, or how the text appears *pg.31*

Footer— material separate from the document contents that appears at the bottom of the page *pg.193*

Format Painter— — used to copy and paste the formatting from selected text to the target text *pg.63*

Function Library—pre-installed collection of formulas and equations available in Excel *pg.89*

Handles— small icons on the corner and sides of objects, such as pictures, shapes or text boxes, in an Office document or file to show where the edges of the object are. Can be used to resize an object. *pg.146*

Header—material separate from the document contents that appears at the top of the page *pg.193*

Hide/ unhide (columns or rows) removes columns or rows from sight, but does not change any values or equations dependent upon those cells *pg.60*

Beginning Microsoft Excel 2013: Glossary

Microsoft Office Specialist (MOS): Exam 77-420 Excel 2013

Labels—category or column headers *pg.82*

Ledger—a book or computer file for recording or totaling money transactions*pg.83*

Object— any item other than text used in a file, such as a shape, picture, Clip Art, etc *pg.145 -This one is extremely unclear; so I made it to be the first instance of adding a picture to the spreadsheet. The word "Object" isn't actually used in the context given here in any of the excel books.*

Page Layout View—shows how the spreadsheet will appear as a printed page*pg.193*

Percentage (formatting)—numbers are formatted as percentages, regardless of typed input*pg.55*



Range—group of cells that have been selected. Usually referred to as a Named Range pg.39

Relative reference—a Relative Reference refers to the target cell by Row and by Column. A Relative Reference that is used in an equation will adjust when the formula is Filled Down. This type of reference is affected by moving cells pg.84

Screenshot—captures a picture of any window that is open pg.145

Shape—a text box with custom formatting. Shapes are modified with the Drawing Tools pg.170

SmartArt—editable graphics, charts and diagrams pg.179

Spreadsheet—a table of values arranged in rows and columns pg.27

Styles— collection of preset formatting to be applied to text or objects pg.67

Unmerge—divides merged cells into separate cells *pg.44*

Workbook—a collection of spreadsheets in Excel *pg.193*

Wrap text—cell formatting that lets text appear on multiple lines in the cell *pg.37*

WYSIWYG—acronym for 'what you see is what you get', which applies to programs that show how the document or file will be displayed as a finished product*pg.192*





Beginning Microsoft Excel 2013: Index

Microsoft Office Specialist (MOS): Exam 77-420 for Excel 2013

Cells: Apply Cell Style, Pg 67
Cells: Apply Highlighting, Pg 33
Cells: Apply Number formatting, Pg 54
Cells: Insert and Delete Cells, Pg 62
Cells: Merge Cells, Pg 36
Cells: Modify Alignment and Indentation, Pg 34
Cells: Modify Font and Font Styles, Pg 31
Cells: Use the format Painter, Pg 63
Cells: Wrap Text within Cells, Pg 37

Change Row Height and Column Width, Pg 30

Charts: Add Additional Data Series, Pg 133
Charts: Add Legend, Pg 132
Charts: Create a Chart, Pg 107
Charts: format Layout and Styles, Pg 110

Copy and Paste Data, Pg 38

Create New Blank Workbooks, Pg 27

Expand Data Across Columns, Pg 36

Function: AVERAGE, Pg 90
Function: COUNT, Pg 92
Function: MIN and MAX, Pg 93
Function: SUMIF, Pg 57

Hide Rows and Columns, Pg 60

Illustrations: Apply Styles and Effects, Pg 148
Illustrations: Change Object Color, Pg 171
Illustrations: format Borders, Pg 149
Illustrations: Insert Pictures, Pg 145
Illustrations: Modify Object Properties, Pg 150
Illustrations: Position Objects (SmartArt), Pg 187

Save: Maintain Backward Compatibility, Pg 73

SmartArt: Insert SmartArt, Pg 179
Text: Insert Text Box, Pg 170

Workbook Views: Change Views, Pg 192
Workbook Views: Freeze Panes, Pg 198
Workbook Views: Split the Window, Pg 197
Workbook Views: Zoom, Pg 196