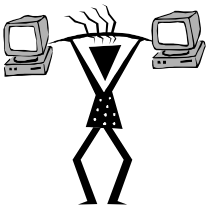

Exercise
Your Mind!

Elert & Associates

90 Minute Workouts®
Courseware Sampler

90 Minute Workouts
Courseware Sampler

90 Minute Workouts®

Courseware Sampler

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90 Minute Workouts®

Courseware Sampler

What Are 90 Minute Workouts®?

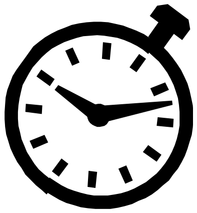
We understand that most people do not have days to devote to software training, particularly if it involves traveling to an off-site training location, but we also know that workers need to keep learning and building productivity skills. That's why Elert & Associates' 90 Minute Workouts® are the ideal solution.

With 90 Minute Workouts®, you can take just 90 minutes out of your day to learn a few new skills from a knowledgeable instructor in a hands-on environment. Choose the workout that addresses your specific needs (such as Word Mail Merge or Excel Charts). Then take those skills back to your office and immediately apply them to your work. When you're ready, come back for your next workout to learn another new set of skills.

The modularized format of our 90 Minute Workouts® allows you the flexibility to customize your own learning path (a benefit not realized by traditional full- or multi-day software classes). And since we offer our workouts in a virtual classroom on the Internet, you incur no lost time or expense due to travel.

Why 90 Minutes?

Research indicates that the average adult can listen with *understanding* for ninety minutes, and can listen with *retention* for only twenty minutes. Using this concept, we have developed a series of courses that alternate short bursts of learning followed by authentic practice. Each course presents a few manageable "chunks" of information, helping learners to build lasting, immediately applicable skills in the applications they use most.



Are 90 Minute Workouts® Right for Your Organization?

Do you need to use the tools on your computer more effectively than you do today? Yes ☐ No ☐

Do you find that full-day or multi-day training sessions cover too much information to absorb at one time? Yes ☐ No ☐

Do you find it difficult to get away for a half-day, full-day, or multi-day class? Yes ☐ No ☐

Do you wish you had time to apply one specific set of skills before learning an entire program? Yes ☐ No ☐

If you answered “Yes” to any of these questions, Elert & Associates’ modularized 90 Minute Workouts® are just what you and your organization need!

What Do Our Students Think of Our Classes and Instructors?

Don’t just take our word for it; check out what our students have to say about our 90 Minute Workouts® and our instructors:

- *I really like the shorter, single-topic classes. It’s hard to get away for an entire day; plus, full-day classes include too much information. This class was just right.*
- *Informative and well-paced; pleasant and knowledgeable instructor; I would highly recommend this course to others.*
- *It was a wonderful class… The instructor was flexible and focused on meeting the needs of her students… The materials are very user friendly and a nice reference for later.*
- *Great class—it moved along easily and the hands-on instruction was very helpful.*
- *Excellent, time-saving workshop. I’ve learned what I need to know, plus more. Thanks!*
- *Great! A lot of fun. 90 minutes flew by! I’m looking forward to taking additional courses.*
- *I have taken six of these classes and I can't stop talking about how helpful they were... I'm a fairly advanced user, yet I learned at least one or two new things in each workshop that will help me in my everyday work.*
- *This was the best software training I've ever had. The pace was perfect and the material was 100% applicable to my needs.*

Available 90 Minute Workouts®

The following pages list the titles of our currently available 90 Minute Workouts®. For detailed course descriptions, visit www.elerttraining.com. (Click on Course Catalog.) We can also customize any of our workouts or develop new workouts to meet the unique needs of your organization.

Note: *The course lists below are for our Microsoft Office 2010 and 2007 workouts. If you are using an earlier version of Office, contact us or see our website for available titles.*

Microsoft Access

Access 2010

- New Features
- Getting Started
- Creating Tables
- Enhancing Tables
- Working with Table Relationships
- Creating Forms
- Creating Select Queries
- Creating Reports
- Enhancing Forms
- Creating Advanced Queries
- Enhancing Reports
- Creating Macros

Access 2007

- New Features
- Getting Started
- Making the Most of Tables
- Working with Table Relationships
- Creating Forms
- Queries I
- Working with Reports
- Enhancing Forms
- Queries II
- Designing Advanced Reports

Microsoft Excel

Excel 2010

- New Features
- Getting Started
- Functions & Formulas
- Formatting Spreadsheets I
- Formatting Spreadsheets II
- Working with Workbooks
- Creating Charts
- Lists & Tables
- Tips & Shortcuts
- More Functions & Formulas
- Automating Tasks with Macros
- Pivot Tables
- Data Analysis Tools
- Power Functions

Excel 2007

- New Features
- Getting Started
- Functions & Formulas
- Formatting Spreadsheets
- Working with Workbooks
- Creating Charts
- Tables
- Tips & Shortcuts
- More Functions & Formulas
- Automating Tasks with Macros
- Analyzing & Summarizing Data with Pivot Tables
- Data Analysis Tools

Microsoft PowerPoint

PowerPoint 2010

- New Features
- Getting Started
- Formatting Presentations I
- Formatting Presentations II
- Animating Presentations
- Slide Shows
- Tips & Shortcuts
- Working with Pictures, Audio, & Video

PowerPoint 2007

- New Features
- Getting Started
- Formatting Presentations
- Animating Presentations
- Slide Shows
- Tips & Shortcuts

Microsoft Word

Word 2010

- New Features
- Getting Started
- Document Formatting
- Document Layout
- Styles
- Templates
- Tables
- Forms
- Numbered, Bulleted, & Multilevel Lists
- Navigating Long Documents
- Working with Reference Tools
- Mail Merge
- Document Collaboration
- Tips & Shortcuts
- Automating Tasks with Macros

Word 2007

- New Features
- Getting Started
- Document Formatting I
- Document Formatting II
- Styles
- Templates
- Tables
- Forms
- Numbered, Bulleted, & Multilevel Lists
- Formatting Long Documents
- Tools for Navigating Long Documents
- Mail Merge
- Tracking Changes
- Tips & Shortcuts
- Automating Tasks with Macros

Microsoft Office

Office 2010

- New Features
- Moving from Office 2007
- Integrating Word, Excel, & PowerPoint
- Creating SmartArt Graphics
- Tips & Shortcuts

Office 2007

- New Features
- Drawing, Clip Art, & WordArt
- Integrating Word, Excel, & PowerPoint
- Creating SmartArt Graphics
- Tips & Shortcuts

Microsoft Visio

Visio 2010 (coming soon)

- Creating Drawings
- Enhancing Drawings
- Organization Charts

Visio 2007

- Getting Started
- Flowcharts
- Organization Charts
- Creating Data Diagrams with Visio Professional

Microsoft Project

Project 2010 (coming soon)

- New Features
- Getting Started
- Refining a Project Plan
- Working with Resources
- Working with Costs
- Tracking a Project
- Tips & Shortcuts
- Customizing a Project Plan
- Working with Reports

Project 2007

- New Features
- Getting Started
- Refining a Project Plan
- Working with Resources
- Working with Costs
- Tracking a Project
- Tips & Shortcuts
- Customizing a Project Plan
- Working with Reports

Microsoft Outlook

Outlook 2007

- New Features
- Overview & Mail Basics
- Calendar Basics
- Mail Advanced
- Working with Meetings
- Contact Management
- Mail Management
- Working with Tasks, Notes, & the Journal
- Formatting Messages
- Customizations
- Managing Multiple Calendars & Mailboxes

Outlook 2007

- New Features
- Overview & Mail Basics
- Working with Appointments & Tasks
- Mail Advanced
- Working with Meetings
- Mail Management
- Contact Management
- Tips & Shortcuts
- Managing Multiple Calendars & Mailboxes

Other Classes

Acrobat 9

- Getting Started
- Creating PDF Documents
- Modifying PDF Documents
- Managing PDF Documents

Windows 7

- Moving from Windows XP

About Our Courseware…

In addition to our top-notch instructors and our unique 90-minute course format, our courseware also sets Elert & Associates apart from other technology training providers. Using a proprietary approach called Cross-Functional Instructional Design™, specialists on our development team create materials that are ideal for use not only during our instructor-led training sessions, but also as an effective and user-friendly follow-up reference.

The following pages contain an excerpt from one of our most popular workouts, *Microsoft Excel Functions & Formulas*.

About Performance-Based Exercises

Each 90 Minute Workout® includes a practice exercise for students to complete during or after class. Through this exercise, students get a chance to apply what they've learned by completing scenario-based tasks built on real-world examples.

The performance-based exercise from our *Excel 2010 Functions & Formulas* 90 Minute Workout® is provided on the final pages of this document.

For More Information…

For more information or to discuss how our 90 Minute Workouts® can meet the needs of your organization, contact us at **651-705-1289** or **training@elert.com**.

Elert & Associates
www.elerttraining.com

Excel 2010
Functions & Formulas

PREREQUISITE SKILLS

- Comfortable with the Windows environment
- Comfortable and familiar with basic Excel capabilities
  (Suggested Course: Excel 2010 Getting Started)

WORKOUT GOAL

Learn the fundamentals of creating and working with formulas and functions. Start by building and copying simple formulas. Then learn to use functions such as SUM, AVERAGE, PMT, ROUND, TODAY, and NETWORKDAYS. Also understand the difference between relative and absolute cell references, create grand totals, and work with formulas that contain 3-D references.

YOUR PERSONAL LEARNING GOAL

____

____

OPPORTUNITIES FOR CONTINUED LEARNING

- Excel 2010 Getting Started
- ***Excel 2010 Functions & Formulas***
- ✓ Excel 2010 Formatting Spreadsheets I
- Excel 2010 Formatting Spreadsheets II
- Excel 2010 Working with Workbooks
- Excel 2010 Creating Charts
- Excel 2010 Lists & Tables
- Excel 2010 Tips & Shortcuts
- Excel 2010 More Functions & Formulas
- Excel 2010 Automating Tasks with Macros
- Excel 2010 Pivot Tables
- Excel 2010 Data Analysis Tools
- Excel 2010 Power Functions

✓Indicates suggested next course(s).

SAMPLE

Microsoft Excel 2010

Functions & Formulas

Topics Included in This Course 15

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What Are Functions?...16

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Comparison Operators..17

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SAMPLE

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Microsoft Excel 2010

Functions & Formulas

Topics Included in This Course

The following pages represent only a portion of the *Excel 2010 Functions & Formulas* 90 Minute Workout®. The complete course includes the following topics:

- What Are Formulas?
- What Are Functions?
- Understanding Formula Operators
- Working with Formulas
- Using Functions
- Understanding Absolute and Relative Cell References
- Rounding Values for Calculations
- Using Date and Time Functions
- Creating Formulas with 3D References

SAMPLE

What Are Formulas?

A formula consists of a string of instructions to perform a particular calculation. Rather than punching numbers into a calculator and coming up with a final answer, you can create an Excel formula to obtain that same answer. The beauty of Excel is that you can then go back and easily change those input numbers and immediately see your updated result.

You can create simple formulas that contain a single calculation (e.g., =A1+B1), or you can create more complex formulas that include multiple calculations (e.g., =((A1+B1)*(B6-B4))*6%).

What Are Functions?

Functions are commonly used formulas built into Excel. Excel has over 400 functions, which speed up and simplify your calculations. For example, rather than typing the formula **=B1+B2+B3+B4+B5+B6+B7+B8**, you can use the SUM function: **=SUM(B1:B8)**.

There are several categories of functions applicable to many different industries. For example, there are financial functions, logical functions, math and trigonometric functions, statistical functions, and engineering functions.

In many instances, you may not know exactly what values are needed to calculate a particular formula. For example, many people may not know the calculation involved in calculating a loan payment. In these cases, Excel supplies you with the formula and you just fill in the blanks. Some common functions include the following.

Function:	**Purpose:**
SUM	Add a list of numbers.
MAX	Find the highest value in a list of numbers.
MIN	Find the lowest value in a list of numbers.
AVERAGE	Find the average of a list of numbers.
COUNT	Count the number of occurrences.
PMT	Calculate a loan payment.

Understanding Formula Operators

There are many mathematical symbols, called “operators,” that are used to build formulas. Formulas always begin with the equal sign (**=**).

Arithmetic Operators

Common arithmetic operators include the following.

Operator:	Operation:	Example:
+	Addition	=A1+B1
-	Subtraction	=A1-B1
*	Multiplication	=A1*B1
/	Division	=A1/B1
^	Exponentiation	=A1^B1
-	Negation	=-A1*B1

Comparison Operators

Common comparison operators include the following. The < and > operators produce a TRUE or FALSE result.

Operator:	Operation:	Example
=	Equal to	=A1
>	Greater than	=A1>B1
<	Less than	=A1<B1
>=	Greater than or Equal to	=A1>=B1
<=	Less than or Equal to	=A1<=B1
< >	Not Equal to	=A1<>B1

Reference Operators

Reference operators allow you to indicate either a range of values or individual values. In the following example, the SUM function is used in conjunction with the reference operators.

Operator:	Operation:	Examples:
:	Include a range of values : means “through”	=SUM(A1:A5) Sum A1 **through** A5
,	Include individual values , means “and”	=SUM(A1,A4,A5) Sum A1 **and** A4 **and** A5

SAMPLE

Order of Operation

Excel calculations follow a standard mathematical order of operation. The order of operation determines which parts of a formula are calculated before other parts.

1. Anything in parentheses is calculated before anything not in parentheses.
2. Percents and exponents are calculated next, followed by multiplication and division (from left to right).
3. Addition and subtraction are calculated last (from left to right).

Calculations in parentheses are calculated first, regardless of the other formula operators. If you use more than one set of parentheses, or if you have parentheses nested inside another set of parentheses, Excel calculates the innermost parentheses first. Then the results of those calculations follow the order of operation. All operations on the same level are then calculated from left to right.

For example:

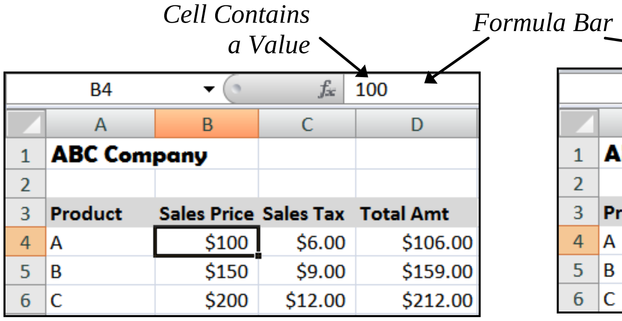
Formula:	Result:
=12+6/3	14
=(12+6)/3	6
=((12+6)-2)/4	4

Referencing Cells

When writing formulas, it is important to reference the cell address rather than typing values directly into the formula. If you include the values within the cell, the result is constant. If you reference the cell addresses instead, the result automatically updates whenever the content of the cell changes. For example, the formula =100+6 will always equal 106. However, the formula =B4+C4 will always equal the total of whatever values are currently in cells B4 and C4.

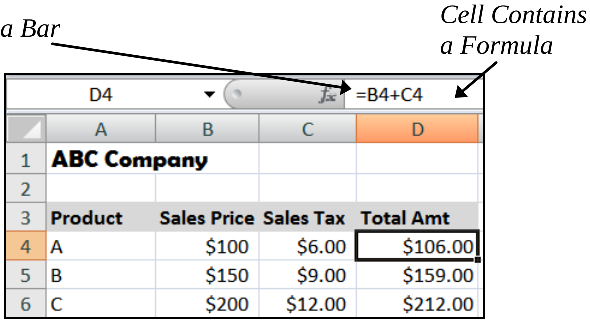
Viewing Formulas

When viewing a worksheet, you can't immediately see the difference between a cell that contains a value and a cell that contains a formula. You must select the cell and look at the Formula Bar.



100

	A	B	C	D
1	**ABC Company**			
2				
3	Product	Sales Price	Sales Tax	Total Amt
4	A	$100	$6.00	$106.00
5	B	$150	$9.00	$159.00
6	C	$200	$12.00	$212.00



=B4+C4

	A	B	C	D
1	**ABC Company**			
2				
3	Product	Sales Price	Sales Tax	Total Amt
4	A	$100	$6.00	$106.00
5	B	$150	$9.00	$159.00
6	C	$200	$12.00	$212.00

Working with Formulas

Excel formulas consist of instructions for performing calculations. Once you create a formula, you can edit it and/or copy it to other locations.

Creating a Formula

Follow these steps to create a formula.

1. Select the cell where you want to display the result of the formula.
2. Type the = to indicate that you are creating a formula.
3. Type the cell references and operators to create the formula (for example, B4+C4). Each cell reference displays in a different color.

   Note: *An alternative to typing the cell reference is to use the mouse or arrow keys to select the cells you want to include.*

4. When the formula is complete, press **Enter**. The result of the formula displays. By default, Excel moves the cell pointer down to the next cell. To view the formula in the Formula Bar, click the cell that contains the formula.

Editing Formulas

There will be times when you need to make changes to your formula. You can do this in the Formula Bar or within the cell itself.

Editing in the Formula Bar

Follow these steps to edit a formula in the Formula Bar.

1. Select the cell containing the formula you want to edit.
2. In the Formula Bar, click near the value/text you want to change. The formula displays in various colors, and the referenced cells are bordered in corresponding colors.
3. Make the necessary changes.
4. Press **Enter** to enter the formula and update the result.

Editing within the Cell

You can also edit a formula in the active cell.

1. Double-click the cell containing the formula you want to edit. The formula displays in the cell, and colored borders surround the cells referred to in the formula. (You can also select the cell and press **F2**.)
2. Edit the cell contents directly in the active cell. Use the mouse or arrow keys to move within the formula.
3. Press **Enter** to enter the formula and update the result.

SAMPLE

Copying Formulas

One of Excel's great timesaving features is the copy command, which allows you to create one formula and then copy it to other cells. When you copy a cell that contains a formula, Excel copies the formula, rather than the value in the cell. Excel automatically adjusts the formula to reflect the cell references of the new location. This is called relative cell referencing.

Using Copy and Paste

Use the copy and paste method to copy a formula to a cell that is not adjacent to the cell that you're copying. For example, use copy and paste if you want to copy a formula from cell D4 to cell I4.

1. Select the cell(s) you want to copy.
2. On the **Home** tab, in the **Clipboard** group, click the Copy button. A flashing marquee surrounds the copied cell(s).
3. Select the destination cell(s).
4. Click the top portion of the Paste button. The formula pastes and adjusts the result relative to its new location.

   Note: *When you use copy and paste, the Paste Options button* (Ctrl) *displays next to the pasted cell(s). Click the Paste Options button to select from various formatting options for the pasted cell(s).*

5. Press **Esc** to remove the flashing marquee. (Clicking the Save button also removes the flashing marquee, plus it saves your workbook!)

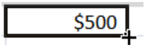
Using Drag and Drop

You can also use drag and drop to copy formulas to other cells. This method works best when the cells are not adjacent to one another, but you can see both the cell you are copying from and the cell you are copying to on the same screen.

1. Select the cell(s) you want to copy.
2. Rest the mouse pointer on the border of the selected cells. The mouse pointer changes to a four-headed arrow when it is in the correct position.
3. Press and hold the **Ctrl** key and drag the cell(s) to the destination cell. (When you press and hold the **Ctrl** key, the mouse pointer includes a plus sign, indicating that it will copy the cell(s) you drag and drop.)
4. Release the mouse button, and then release the **Ctrl** key, to drop the copied formula at its new location.

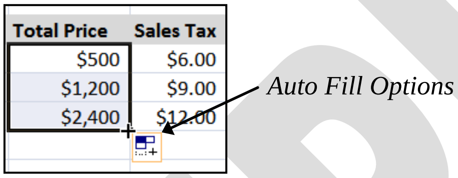
Using AutoFill

Use the AutoFill method to copy a formula when the cell(s) to which you want to copy are adjacent to the cell that contains the formula.

1. Select the cell whose formula you want to copy.
2. Point at the square box, called the fill handle, in the lower-right corner of the cell border. The mouse pointer changes to a ✚  .
3. Click and drag the fill handle across the cells to which you want the formula copied.

   Hint: *Double-click the fill handle to copy a formula down to the end of a column of contiguous cells.*

4. Release the mouse button to copy the formula to the selected cells.



Total Price	Sales Tax
$500	$6.00
$1,200	$9.00
$2,400	$12.00

Note: *When you drag the fill handle to copy a formula, an Auto Fill Options button* ⊞ *displays next to the copied cell(s). Click the Auto Fill Options button to select from various formatting options for the copied cell(s).*

SAMPLE

Excel 2010
Functions & Formulas

SAMPLE

Instructions

This exercise is designed to help you practice what you learned in class. Refer to the page numbers listed after each step for assistance completing that step.

Practice Files

This exercise uses the following practice file, which you can download from **www.elert.com/trainingweb** (click on **Excel**):

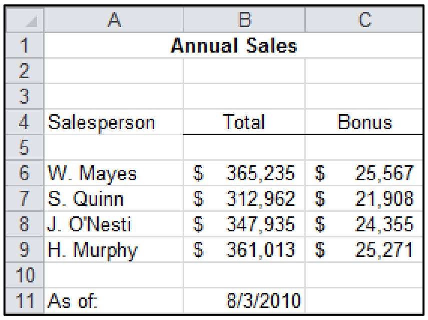
Bonus Worksheet.xlsx

Scenario

You have created a workbook named **Bonus Worksheet.xlsx** that you want to finalize now that the fourth quarter is complete.

1. Open the workbook **Bonus Worksheet.xls** and save it to a folder you can easily access. Save it with the following name: **Bonus – Your Name**.
2. On the **Qtr 4** worksheet, calculate the totals for the October, November, and December sales. Also, calculate the quarterly total for each sales person. *(p. 8 or 9)*
3. Calculate the average sales for each month and for the quarter. *(p. 8)*
4. Each sales person is paid 7% of his/her sales as a bonus each month. Calculate each sales person's bonus for the quarter. Each bonus amount should be rounded to the nearest whole dollar. *(p. 18, 16)*
5. Now calculate the total and average bonus amounts for the quarter. The total should be $27,134 if the amounts were rounded correctly. *(p. 6)*
6. On the **Total** worksheet, add a formula in cell B11 to always show the current date. *(p. 19)*
7. On the **Total** worksheet, calculate each sales person's total sales and bonuses for the year. *(p. 22)*

Your **Total** worksheet should look similar to the following:



	A	B	C
1		**Annual Sales**	
2			
3			
4	Salesperson	Total	Bonus
5			
6	W. Mayes	$ 365,235	$ 25,567
7	S. Quinn	$ 312,962	$ 21,908
8	J. O'Nesti	$ 347,935	$ 24,355
9	H. Murphy	$ 361,013	$ 25,271
10			
11	As of:	8/3/2010	

8. Save your worksheet. You are finished using Excel for the day.