

University Information Technology Services

# Microsoft Excel 2010 Level 1

University Information Technology Services

Outreach, Training, Learning Technologies & Video Production

#### Copyright © 2010 KSU Department of University Information Technology Services

This document may be downloaded, printed, or copied for educational use without further permission of the University Information Technology Services Department (UITS), provided the content is not modified and this statement is not removed. Any use not stated above requires the written consent of the UITS Department. The distribution of a copy of this document via the Internet or other electronic medium without the written permission of the KSU - UITS Department is expressly prohibited.

#### Published by Kennesaw State University – UITS 2010

The publisher makes no warranties as to the accuracy of the material contained in this document and therefore is not responsible for any damages or liabilities incurred from its use.

Microsoft product screenshot(s) reprinted with permission from Microsoft Corporation.

Microsoft, Microsoft Office, and Microsoft Excel are trademarks of the Microsoft Corporation.

## **University Information Technology Services**

## Excel 2010 Level 1

## **Table of Contents**

## Introduction

This booklet is the companion document to the Excel 2010 Level 1 workshop. It includes an introduction to the Microsoft Office 2010 interface, and covers the various aspects of creating, formatting, editing, saving, and printing a document in Word 2010.

### **Learning Objectives**

After completing the instructions in this booklet, you will be able to:

- Identify the components of the Office 2010 interface
- Be familiar with the layout of the spreadsheet
- Have the ability to enter text and numbers
- Have the ability to modify a spreadsheet
- Understand formulas and functions
- Know how to change the appearance of text and numbers within the spreadsheet
- Be able to apply borders
- Have the ability to print
- Know how to save a worksheet

## The Office 2010 Interface

There were a number of prominent changes to the look and functionality of the Microsoft Office 2007 interface when compared to previous versions. The Office 2010 interface is very similar to the Office 2007 interface, with a few minor changes. The following describes the Office 2010 interface.

#### The File Tab

The *File Tab* (see *Figure 1*), located in the top left corner of the window, replaces the *Office Button* (see *Figure 2*) from Office 2007.



Figure 1 – The File Tab (Excel 2010)



Figure 2 – The Office Button (Excel 2007)

When you click the File Tab, your view will change to what is called Backstage (see Figure 3).

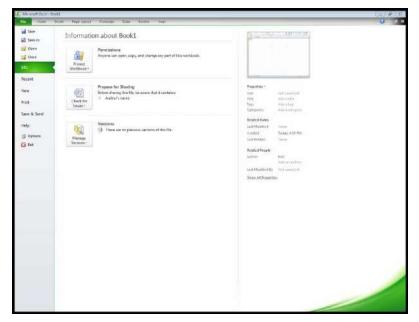


Figure 3 - Backstage

When you are viewing the *Backstage*, you can do the following:

- Save and close spreadsheets
- Obtain information about spreadsheets
- See recent files created and edited
- Create new spreadsheets and templates
- Print spreadsheets
- Obtain help
- Exit Excel 2010

If you click the *Print* option, you will automatically see a preview of your document. For this reason, you will not find the *Print Preview* button that has been provided with previous versions of Excel.

To leave the *Backstage* view and return to your document, click any of the tabs (*Home, Insert, Page Layout*, etc.).

#### The Ribbon

The Ribbon (see *Figure 4*) is a panel that contains functional groupings of buttons and drop-down lists organized by tabs. Each application in the Office Suite has a different set of tabs (with some tabs in common) that pertain to the functionality of that particular application. Each tab is further divided into groups (of buttons), such as the Font and Alignment groups, which are shown in *Figure 4*.



Figure 4 – The Ribbon

At the bottom-right corner of some groups, there is a diagonal arrow called a *Dialog Box Launcher*. Clicking this button opens a dialog box for that group containing further option selections for the group.

There are also *contextual tabs* that appear, depending on what you are working on. For example, if you have inserted pictures, the *Picture Tools* tab appears whenever a picture is selected (see *Figure 5*).

File	Home Ins	ert	Page Lay	out Formulas	Data P	leview	View	Format	1			_			۵ 🕜 📼	. <del>.</del>
Remove Background	Corrections	Color	Amstin	Compress Pictures							Picture Border *     Q Picture Effects *     Picture Effects *	Up Bring Forward - Up Send Batkward Sty Selection Pane	· 团 Group *	Crop	1] Height: 2'	0 0
		Adju	ist					P	icture Style	15	G	Arrang	e		Size	6

Figure 5 – Example of a Contextual Tab

A new feature with Excel 2010 is the ability to build your own tab(s). The following explains how to build your own tabs/groups:

- 1. Right-click anywhere in the ribbon.
- 2. Select Customize the Ribbon.
- 3. Click the button *New Tab*.
- 4. You will see that *New Tab* has been added in the list of *Main Tabs*. Under *New Tab*, you will see *New Group*. Click once to select *New Group*.
- 5. In the *Word Options* window, you will see a pane on the left with many commands. Click to select the command that you want to add to the *New Group* that you selected in the previous step. Then click the *Add>>* button.
- 6. To create another group within a tab, select New Tab.
- 7. Then, click New Group.
- 8. Repeat steps 4-5 above to add additional commands to the group.
- 9. To rename the tab or group, select *New Tab* or *New Group.* Then, right-click and select *Rename*.
- 10. To hide a tab, remove the check-mark next to the name of the tab.

#### The Quick Access Toolbar

The Quick Access Toolbar is a small toolbar at the top left of the window that you can customize to contain the buttons for the functions that you use most often. In essence, it is the same as the toolbars from previous versions of Office with only the buttons you want to see on it.

To customize the Quick Access Toolbar, click on the drop-down arrow (see *Figure 6*). You can add or remove items from the Toolbar, as well as show the Toolbar below the Ribbon, rather than above, and minimize the Ribbon.



Figure 6 – Quick Access Toolbar

## **Columns and Rows**

- 10							Million S			0-00-000		-								
Parte	A cin Galani Frans	Firelat	case: B J	* (E	3-A			· 田王	ry thet oge & Zeitler	5 - 1		121 22	attend to	reat Cel	Pill H	Deteta Int	2 No 74 12 Or	14 - 14 14 - 14 14 - 14	an inter	11111
1	Christett.	- 14		Feet		36	-2.54	160-X		s	Gettin	41	34			246		Autim	62	4
				E																
		.#	C	0	f		-0-	1.11	. 1	- 4.		1	M:	1 M	0	- 5	0	- 8	: 5	
-			-																	
-																				
2																				
9			-	-																
-20																				
1			1																	
			1																	
4																				
10																				
23																				
12																				
13																				
341																				
15			-																	
30			î																	
17																				
10																				
12			_																	
311			_																	
21			-																	
22			1																	
귀			-																	
28																				
5																				
20				-																
20																				
20			1																	
241																				
100			1																	
82			-																	
-																				
54			1																	
95																				
Mr.																				
57			0																	
188																				
33																				
40																				
	H Shin	e1	414 240	100								1141								×.

**Column** – A vertical line of cells. A letter identifies each column (see *Figure 7*).

Figure 7 – Columns

**Row** – A horizontal line of cells (see *Figure 8*). A number identifies each row.

	1									-	1	1104	Cast of Cast	(Incl												
			e Sj														-		-	142	111	100.			U	
in l	a Cany	e Referen	Caller D. J.	u - 1 =	(1) - ) - 31	4		= 2 = 3		in and a	y Test yr A Cost	ter -	s - 1	• •	24.2	t ten	de sergi	Tint d	Cel Ster	(R.144)	Cente		120			ng a nef a
	813 B3		- ife	1241		- 50	_		141941			18	- 14	9424		1		Patter	_		(Cr8)		-	(Eith	14	_
			-0						1	14										0			0		7	
	<u>e</u>							- 20		-										U.	-				-	
3	_									_																
1	-				2										-				_		-			-		-
-	_					_	_							-		_	1		_	_		-	_	-	-	-
-																										
1																										
1																										
i.																										
6																										
1																										
8																										
1																										
6]																										
1																										
8.8.8	1. 534	st	102 2 88	ext to												14.										
altr:																						EHB	1 51 0	276 (G)		

Figure 8 – Rows

## **Entering Text**

- 1. Click the cell where you want to enter data and type the text or numbers (see *Figure 9*).
- 2. The data you type appears in the active cell and in the formula bar.
- 3. If you make a typing error, press the *Backspace Key* on your keyboard to remove the incorrect data.
- 4. To enter the data and move down one cell, press the *Enter Key* on your keyboard. To enter data and move in any direction, press either the *Tab Key* or the *Arrow Keys* on your keyboard. Repeat the previous steps until you have finished entering in all the data.

tur 🔏 📙		Catibri	+ 11	• A * *	= = =	æ	Wrap	o Text	General				1		*	Σ AutoSum *	27 3
ste 🥩 Forr	nat Painter	BI	I - 🔟 -	<u>⊘</u> - <u>A</u> -				ge & Center -	\$ - %		58 ÷8		Format Cell as Table * Styles *	Insert *	Delete Format	2 Clear *	Sort & Find & Filter * Select *
Clipboard	5		Font	Die Die		Alignm	ent	15	Nu	mber	15		Styles	_	Cells	Ed	ling
B5		(=	f.														
Α	8	С	D	E	E.	G	H	E	1.	к	3	. M	N	0	₽	Q. R	S
income St	atement																
-																	
-																	

Figure 9 – Entering Text

## Long Words and Numbers

**Long Words** - The text will spill into the neighboring cell. If the neighboring cell contains data, Excel will display as much of the text as the column will allow.

Long Numbers - Excel will display the number in scientific form or as number signs (##).

	File	ome Inse	ert Page Layout	Formulas	Data Review	View									<u>ې</u> ۵	- ē
THE PARTY	The Contract of Co	py = rmat Painter	Calibri B Z U + For	-  11 -   A* A* E -   <u>3</u> 8 - <u>A</u> t		Contraction of the second	General \$ + % + Number	ب 30: 80: 10		Format C * as Table * Sty Styles	Lell ries +	Insert Delet	e Format	Σ AutoSum *	410	Find &L select *
	D18		- (* . fr													
ā	A	В	c	DE			1	K	L	M	N	0	р	Q	R	S
L	Income S	tatement	$\leftarrow$		Lo	ng Words 📋										
2																
			January													
	Revenue		8700													
£																
5	Payroll		3850													
r.	Rent		1750				)	_								
l,	Supplies		1925		1.000	Number Die										
9.	Total Exp		7525			Number Dis										
10					in a	Scientific F	Form									
1	Income		3.68E+15	$\langle -$			•••••									
.2																
.3			nnuan an <mark>n</mark> annan	$\leftarrow$		N								-		
12 13 14	1				Long	Number Dis	spiayed							_		
(5	£					Number Si										

*Figure 10 – Long Words and Numbers* 

## **Complete a Series**

- 1. Enter the text or the numbers that will begin your series (example: January).
- 2. Position the mouse over the bottom right corner of the selected cell until the white plus-sign turns into a black plus-sign (see *Figure 11*).

	Cut		Calibri	• 11 • A	A* = =	<b></b> &/*	Wrap Text
Pa	ste 🍼 Forma	at Painter	<b>B</b> <i>I</i> <u>U</u> ∗	🗄 •   🕭 • 🗚	) I I I		Merge & Cente
	Clipboard	5	Fo	nt	5	Alignm	ient
	C3		r ( fx	January			
Â	A	В	С	D	E	F	G H
1	Income Sta	tement					
2							
3	1		January	$\mathbf{h}$			
4	Revenue		8700	11500	13670		
5							
б	Payroll		3850	4850	5250		
7	Rent		1750	1750	1750		
8	Supplies		1925	1980	2030		
9	Total Exp		7525				
10							

Figure 11 – Complete a Series

3. Left click and hold the mouse button down. Drag the mouse pointer over the cells that you want to include in your series (see *Figure 12*).

F	ile Hom	ne Inse	ert Page Layout	: Formulas	Data R	eview	View		
Pa	Cut Copy ste Clipboard	* at Painter	Calibri BB Z U + Fo	• 11 • A		Alig	Resta	ap Text rge & Center	
	C3		• (* fx	January					
al.	A	В	С	D	E	F	G	Н	
1	Income Sta	itement							
2							The o	cells wil	l display
3		<	January	February	March ·	←	the s	eries. Y	ou can
4	Revenue		8700	11500	13670				
5							aiso	comple	te a
6	Payroll		3850	4850	5250		serie	s in a co	olumn.
7	Rent		1750	1750	1750				
8	Supplies		1925	1980	2030				
9	Total Exp		7525						
10									
11	Income		3.68E+15						
12									
13			######################################						
14									

Figure 12 – Complete a Series

## **Selecting Text and Numbers**

- 1. To select text and/or numbers, click and hold the left mouse button down on the first cell in the group that you want to select.
- 2. Drag the mouse until you have selected the area of the text that you want to manipulate (see *Figure 13*).

X	🚽 🤊 • C	-  -						Bool	1
F	ile Hom	ie Inse	rt Page Layout	Formulas	Data Re	eview \	√iew		
	₹ K Cut		Calibri <b>B</b> Z <u>U</u> -	• 11 • A	ALLEY ALLEY	= ≫· ≣ 谭		ap Text rge & Center	
	Clipboard	Fa.	Fo	nt	( <u>)</u>	Alig	nment		15
	A1	5	( fx	Income Stat	ement				
1	A	В	С	D	E	F	G	н	1
1	Income Sta	tement							
2									
3			January	February	March				
4	Revenue		8700	11500	13670				
5									
6	Payroll		3850	4850	5250				
7	Rent		1750	1750	1750				
8	Supplies		1925	1980	2030				
9	Total Exp		7525						
10									
11	Income		3.68E+15						
12									
13			нининининини						
14	-								
15					850				
16									
17									
10									

Figure 13 – Selection

3. Once the area is selected, you can edit using the functions and tools located in the Ribbon (see *Figure 14*).



Figure 14 – The Ribbon

4. You can also delete the selection by pressing the *Delete* key on your keyboard.

## **Moving Text and Numbers**

- 1. Select the cells containing the data that you want to move.
- 2. Position the mouse over a border of the selected cells. The cursor changes from a white plus sign to a four-way-arrow (See *Figure 15*).

	А	В	С	D	E	F	G	Н
1	Income St	atement						
2								
3			January	February	March	▋		
4	Revenue		8700	11500	13670	Y		
5								
6	Payroll		3850	4850	5250			
7	Rent		1750	1750	1750			
8	Supplies		1925	1980	2030			
9	Total Exp		7525					
10								
11	Income		3.68E+15					
12								
13			******					
14								
15								
16								

Figure 15 – Selecting Cells

3. Click and hold the left mouse button and drag the mouse to where you want to place the data. Then, release the left mouse button.

	А	В	С	D	E	F	The text was moved to the
1	Income St	atement					new location from the
2							
3							original location in <i>Figure 15</i> .
4	Revenue						
5							$\checkmark$
6	Payroll		3850	4850	5250		
7	Rent		1750	1750	1750		January February March
8	Supplies		1925	1980	2030		8700 11500 13670
9	Total Exp		7525				
10							
11	Income		3.68E+15				
12							
13			*****				
14							
15							

Figure 16 – Moving Text/Numbers

To move text and numbers, you can also *cut and paste* by using the buttons on the *Home* tab (see *Figure 17*). The following instructions explain how to *cut and paste* text and numbers.

- 1. Click to select the cell with the text and/or numbers to be moved.
- 2. Click on the *cut* button.
- 3. Then, move your cursor and click to select the cell where you want to move the text and/or numbers.
- 4. Click the *paste* button. The data will appear in the new location.



Figure 17 – Cut and Paste

## **Copying Data**

- 1. Select the cells containing the data that you want to copy.
- 2. Position the mouse over a border of the selected cells so that the cursor will change from a white plus sign to a four-way-arrow (see *Figure 18*).

	А	В	С	D	Е	F	G	Н
1	Income St	atement						
2								
3			January	February	March 🗸	<b>≜</b> ►		
4	Revenue		8700	11500	13670	•		
5								
6	Payroll		3850	4850	5250			
7	Rent		1750	1750	1750			
8	Supplies		1925	1980	2030			
9	Total Exp		7525					
10								
11	Income		3.68E+15					
12								
13			*****					
14								
15								
16								

Figure 18 – Selecting Cells

3. Press and hold down the *Control Key* on the keyboard. As you hold down the *Control Key*, drag the mouse pointer to the cell where you want to place the copy.

1	А	В	С	D	E	F	G	Н	I.	J	K
1	Income St	atement									
2											
3			January	February	March						
4	Revenue		8700	11500	13670						
5							<u> </u>				
6	Payroll		3850	4850	5250			January	February	March	
7	Rent		1750	1750	1750			8700	11500	13670	
8	Supplies		1925	1980	2030						
9	Total Exp		7525								
10											
11	Income		3.68E+15								
12											
13			******								
14											

4. Release the *Control Key* and the data will be placed in the new location (see *Figure 19*).

Figure 19 – Copying Data

You can also copy data by using the buttons on the *Home Tab* (see *Figure 20*). The following instructions explain how to copy data.

- 1. Highlight the area that you would like to copy.
- 2. Click on the *copy* button.
- 3. Then click to select the empty cell where you want the copied data to appear.
- 4. Click on the *paste* button. Notice that the original text remains in its original position.



Figure 20 – Copying Data

## Insert a Row or Column

To insert a *row*, follow the steps below.

- 1. Select a row by clicking on the *row number* (the numbers on the left-side of the (spreadsheet).
- 2. Click on the *Insert* button on the *Home* tab (see *Figure 21*).
- 3. Click on the Insert Cells button in the drop-down menu that appears.

	1 2 Hor F H	ne inse	rt Page Layout	Formulas [M]	Data Ri [A]	eview Vie R	svr M	Book	1 - Microso	oft Excel		_	-	-	-
1	Cut	6 N.C.	Calibri	* 11 * A	t ∧' ≡ =		a market w	rap Text	Genera		÷				
Pa	ste V V Form Clipboard	iat Painter	B Z U ·			Align		erge & Center		% ?	.00 *.0	Conditional Fo Formatting + as T Style	20202001200200200000	Insert	Delete Format
	A4		(* fx	Revenue											
	A	В	С	D	E	F	G	н	1	I.	K	L	M	N	0
1	Income Sta	atement													
2	_		and the second second	20.000000000	12000								Inser	t Bu	tton
3	Davidadus	_	January 8700	February 11500	March 13670							-			
4	Revenue		8700	11300	13670	1		-					٨		
-	Payroll		3850	4850	5250			January	February	March			- T		
	Rent		1750	1750	1750			8700	11500						
8	Supplies		1925	1980	2030							_			
9	Total Exp		7525									The			
10												inei	new ro	ww	
	Income		3.68E+15									be in	serted	abo	ve
12															
13			********									🔄 this ı	row.		

Figure 21 – Copying Data

4. The new row appears and all the rows that follow shift downward (see *Figure 22*).

	H 3 · C							Book	1 - Microso	oft Excel					
F	ile Hon	ne Inse	ert Page Layou	t Formulas	Data R	eview Vie	vv								
1	Cut		Calibri	* 11 * A	: x = =	<b>=</b> 🗞	🗐 Wrap	Text	Genera	1	*			+	*
Pa	ste 🦪 Form	at Painter			<u>∆</u> - ≡ ≡	∃ 律律		e & Center		% • 58		Conditional For formatting 7 as Ta	ible - Styles -	insert +	Delete Forma
	Clipboard	79	1	nt	19	Aligne	nent		15 3	Number	Tá	Styles			Cells
	Δ4	3	• (*												
4	A	В	C	D	E	F	G	н	1	J	ĸ	L	M	N	0
1	Income Sta	tement													
2															
3			January	February	March	-	_								<u> </u>
	Revenue		8700	11500	13670								Ν		
5															
7	Payroll		3850	4850	5250		Ja	anuary	February	March	_				
3	Rent		1750	1750	1750			8700	11500	13670		The new	, row i	c	
)	Supplies		1925	1980	2030									-	
.0	Total Exp		7525									inserted	l and t	he o	ther
1															
2	Income		3.68E+15									rows are	e inser	ted	
.3												downwa	arde		
4			*****									uownwa	arus.		
15															
6															

Figure 22 – Copying Data

To insert a Column, follow the steps below.

- 1. Click on the *column* letter (the letters across the top of the spreadsheet).
- 2. Click on the *Insert* button on the *Home* tab.
- 3. Click on the *Insert Cells* button in the drop-down menu that appears.

## Delete a Row or Column

To delete a *Row*, follow the steps below.

- 1. Select the row that you want to delete by clicking on the row number (the numbers on the left-side of the spreadsheet).
- 2. Click the *Delete* button on the *Home* tab (see *Figure 23*).

E.	1 21	r li <del>.</del>	-	_	-	-		Boo	d Micros	off Excel	_	_	_	-	
Pa	te Hon Hon Clipboard	<u>N</u>	Calibri	- 11 - A	· . = =	skew Viz R W ■ ≫** ■ FF FF Aligne	合 一 部 Wr E	ap Text Irge & Center			• 8 49 19	Conditional Formatting * as Styl		Insert	Delete Format
	A4		- (												
1.4	A	в	C	Ð	E	Ŧ	G	H	T.	1	K	L L	M	N	0
1	Income Sta	tement													
2															
3	_	-	January	February	March										
4	1														_
5	Revenue		8700	11500	13670										
6			3850	4850	5250			100000000	February						
8	Payroll Rent		3850					January 8700	the second se					l D	elete
9	Supplies		1925					8700	11500	15070	-				
	Total Exp		7525		2050									B	utton
10	TOTOLEAD		7323												
	Income		3.68E+15												
13			5.002.125												
14	-		*********												

Figure 23 – Deleting a Row

- 3. Click the *Delete Cells* button that appears in the menu.
- 4. The row will disappear and all the rows that follow will shift upward.

X	12				Date D			Bool	d - Microso	oft Excel					
1	Hor F K Cut		rt Page Layout	* 11 * A	A	enew Viet R W		rap Text	Genera	1			2 🕎	-	P 🗉
Pas		iat Painter	B I U *	四•  <mark>冬•</mark> •		Aligne		erge & Center		% •   🐭	.00 +.0	Conditional For Formatting * as Ta Styles	ble * Styles *	Insert	Delete Forma
	AZZ		- (- fr		28.12	0.09100	Terri .		14	FAILED ET	380	ityre	2.		- SERIA
64	A	8	C	D	E	F	G	Н	1	3	K	L	M	N	0
	Income Sta	atement													
2												-		Rc	)WS
3	-			February	March							$\leftarrow$			· c.
100	Revenue		8700	11500	13670			_						sr	nift
5	Payroll		3850	4850	5250			January	February	March					ام بر مر
	Rent		1750					8700	the second s					upv	vard.
-	Supplies		1925	1980				0700	11500	13070					
	Total Exp		7525												
10															
	Income		3.68E+15												
12 13 14			annannannan												
14															

Figure 24 – Deleting a Row

To Delete a *Column* follow the steps below:

- 1. Select the column that you want to delete by clicking on the *column* letter (the letters across the top of the spreadsheet).
- 2. Click on the *Delete* button on the Home tab.
- 3. Click the *Delete Cells* button in the menu that appears.

## **Introduction to Functions and Formulas**

It is important to understand the following information about functions and formulas.

#### **Basic Information**

A function always begins with an equal sign (=). The data Excel will use to calculate a function is enclosed in parentheses ().

#### How to Specify Individual Cells

When there is a comma (,) between cell references in a function, Excel uses each cell to perform the calculation. For example, the function =SUM (A1, A2, A3) is the same as the formula =A1+A2+A3.

#### How to Specify a Group of Cells

When there is a colon (:) between cell references in a function, Excel uses the specified cells and all cells between them to perform the calculation. For example, the function =SUM (A1:A3) is the same as the formula =A1+A2+A3.

#### **Common Functions**

The following are some common functions used in Excel:

Average – Calculates the average value of a list of numbers.
Max – Finds the largest value in a list of numbers.
Sum – Adds a list of numbers.
Count – Counts the number of items in a list.
Min – Finds the lowest value in a list of numbers.
Round – Rounds a value to a specific number of digits.

## **Entering a Formula**

- 1. Click on the cell where you want to enter a formula. This is where the answer will appear. In *Figure 25*, cell G4 has been selected.
- 2. Type an *equal sign* (=) to begin the formula (see cell *G4* of *Figure 25*).

3. Then type the formula and press *Enter* on your keyboard (in cell *G4* of *Figure 25*, the formula is C4+D4).

	le Home	e Inse	rt Page Layout	Formulas	Data Re	view	View					
1	🔏 Cut			* 11 * A	* <sub>A</sub> * = = ;	= »···	Wra	p Text	Genera	2		
Past	te d <b>y</b> Forma		BIU-	- 🔬 -	A - ≣ ≣ ≣	∎ i¤	Mer	ge & Center +	\$ -	% , *.	00. 0 0.≪ 0	Co
	Clipboard	75	Fo	nt	15	Alig	gnment	19	N	lumber	192	
	SUM		• (= X 🗸 fx	=C4+D4								_
A	A	В	C	D	E	F	G	н	1	L	K	
1	Income Stat	ement										
2												
3			January	February	March		Total					
4 F	Revenue		8700	11500	13670		=C4+D4					
5			K	Л								
6 F	Payroll		3850	4850	5250							
7 F	Rent		1750	1750								
8 9	Supplies		1925	1980	2030		Colls th	at are p	art of	the or	ntoro	h
9 T	Total Exp		7525					-				
10						1	formula	will be	highl	ighted	with	n
11	Income		3.68E+15				differer	t colors	_			
12									•			
13												

4. The results of the calculation should appear in the selected cell.

Figure 25 – Entering a Formula

5. To view the formula that you entered, click the cell containing the formula and it will appear in the formula bar (see *Figure 26*).

X	🚽 🧐 • 🔿	* 🔽		_	-			Boo	ok1 – Microsoft Excel
F	File Hom	e Inse	ert Page Layout	Formulas	Data Re	eview Vie	W		
	Ste		Calibri BBZ U~	• 11 • A		<mark>●</mark> 》* ■ 译 律	Wran Merg	p Text ge & Cent	General er * \$ * % , 50 00 Con
	Clipboard	F <sub>3</sub>	Fo	it.	15) 15)	Aligni	ment		The formula
1	G4	Ť.	(° <b>f</b> .	=C4+D4	←				appears in the
A	A	В	С		E	F	G	н	Formula Bar.
1	Income Sta	tement						l	
2			- CONTRACT			-	2204		
3	Baratana		January	February	March		otal		
4	Revenue		8700	11500	13670		20200		
6	Payroll		3850	4850	5250				
7	Rent		1750	1750	1750				
8	Supplies		1925	1980	2030				
9	Total Exp		7525						
10									
11	Income		3.68E+15						
12									
13			uununununun						
14									

Figure 26 – Entering a Formula

## **Editing a Formula**

1. Click on the cell containing the formula that you would like to edit and the formula will be shown inside the formula (fx) bar at the top (see *Figure 27*).

	G4		- (= <i>f</i> x	=C4+D4							
1	Α	В	С	D	E	F	G	Н	1	J	К
1	Income Stat	ement									
2											
3			January	February	March		Total		50	ected	
4	Revenue		8700	11500	13670		20200	K			
5										Cell	
6	Payroll		3850	4850	5250						
7	Rent		1750	1750	1750						
8	Supplies		1925	1980	2030						
9	Total Exp		7525								
10											
11	Income		3.68E+15								
12											
13			******								
14											

Figure 27 – Editing a Formula

2. Click inside the formula bar and make the necessary changes (in *Figure 28, E4* was added to the formula).

X	H 9 - C	~ ਵ		-				Book1 -	Micros	oft Excel	
F	ile Hom	e Inse	rt Page Layout	Formulas	Data R	eview	View				
de	Cut	*		• 11 • A	^ ≡ ≡	= %	₩ Wr	ap Text	Genera	al	
Pa	ste 🛷 Forma	at Painter				≡ (#		rge & Center 🕤			0 .00 Con 00 ⇒.0 Form
	Clipboard	Fa.	Fo		5	Alig	gnment	12		Number	12
_	SUM		$( X \checkmark f_x $	=C4+D4+E4							
1	A	В	С	D	E	F	G	н	- <u>E</u>	J	K
1	Income Stat	tement									
2											
3			January	February	March		Total				
4	Revenue		8700	11500	13670		+D4+E4				
5							8	233			
6	Payroll		3850	4850	5250						
7	Rent		1750	1750	1750						
8	Supplies		1925	1980	2030						
9	Total Exp		7525								
10											
11	Income		3.68E+15								
12											
13			****								
14											

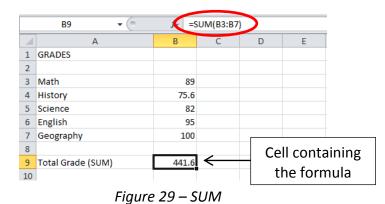
Figure 28 – Editing a Formula

3. After making the necessary changes, press *Enter* and the answer will appear.

## **Basic Formulas**

#### <u>SUM</u>

**Sum** – Adds a list of numbers.



Function: =SUM(B3:B7) Result: 441.6

#### **AVERAGE**

Average – Calculates the average value of a list of numbers.

F	ile Home Inse	rt Pag	ge Layout	Formulas	Data	Review	5
d	Cut	Calibri	*  1	11 - A	` ≡	=	10
	ste • 🎻 Format Painter	BI	<u>u</u> .   🖽 .	- <u>A</u>	E	= =	141
	Clipboard Fa		Font		G.		2
	B9 🔻	. (*	X =A۱	/ERAGE(B3	:B7)		
14	A		В	С	D	E	
1	GRADES						
2							
3	Math		89				
4	History		75.6				
5	Science		82				
6	English		95				
7	Geography		100				
8					C	ام ال	ntaining
9	Average		88.32	$\leftarrow$			-
10	2	18			-	the fo	ormula
11					L		

Figure 30 – AVERAGE

Function: = AVERAGE(B3:B7)
Result: 88.32

MAX

Max – Finds the largest value in a list of numbers.

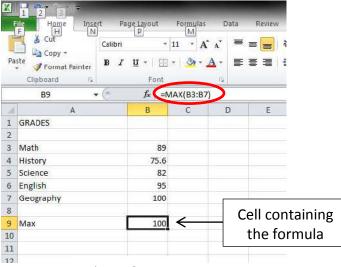


Figure 31 – MAX

Function: = MAX(B3:B7) Result: 100

#### <u>MIN</u>

Min – Finds the smallest value in a list of numbers.

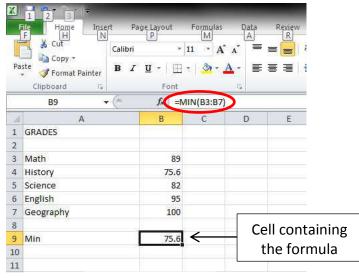


Figure 32 – MIN

Function: =MIN(B3:B7) Result: 75.6

#### **COUNT**

Count – Calculates the number of values in a list.

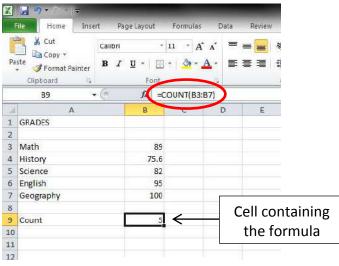


Figure 33 – COUNT

Function: =COUNT(B3:B7) Result: 5

#### <u>ROUND</u>

**Round** – Rounds a value to a specific number of digits.

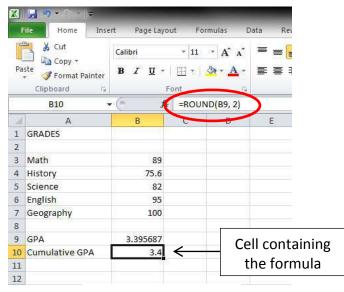


Figure 34 – ROUND

Function: =ROUND(B9, 2) Result: 3.4

## **Entering a Function**

Excel helps you enter functions in your worksheet. Functions let you perform calculations without typing long, complex formulas. The following explains how to use functions.

- 1. Click to select the cell where you want to enter the function on the worksheet.
- 2. Click the *Paste Function* button on the *Formula Bar* (see *Figure 35*).

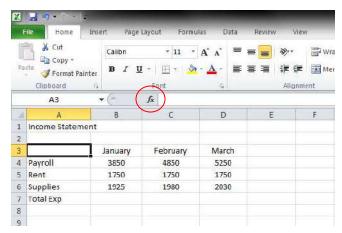


Figure 35 – Paste Function

3. The *Paste Function* dialog box will appear (see *Figure 36*). Select the category that contains the function that you want to use (example: SUM) and click *OK* (if you do not know which category contains the function that you want to use, use the *Function Search Field* to search for the needed function).

Hone	Insert Page I	layoud Form	ilas Dota	Tentew Vio		Book1 -	Microso	t Excel					
te ↓ Cut. ↓ Copy - te ↓ Format Paint Clipboard	Celibn B I U	+  11 + [ +   ]]] +   9 Font		= = >-	字 Wr 强 Me	ap Text rge & Center - ra			- SI 43 D	Formatting * a	Formst Cell s Table * Styles * /les	Insert	Delete Forme Cells
87	• (* × •	100 I I I I I I I I I I I I I I I I I I		1/2				14		1 223			
A	В	С	D	E	F	G	н	1		К	L.	M	N
Income Statemer	nit												
			10000										
2010-102 <b>4</b> 0	January	February	March										
Payroll	3850	4850	5250										
Rent	1750	1750	1750										
Supplies	1925	1980	2030										-
Total Exp	=	<u> </u>	Function				8						
		Insert	runction										
		Searc	h for a function: se a brief description of what you want to do and their dids						<b>_</b>				
		05	e a brief descrip	tion of what you wan	t to do an	d then disk	Go			<b>F</b>			- la 🗖 : - l -
				2010 10 10 10 10 10 10 10 10 10 10 10 10		N			-	Funci	tion S	ear	ch Field
		ore	elect a gategory	e: Most Recently Use	d								
		Select	a function:	8									
		157			_		_	<u>_</u>					
		AV	ERAGE										
		JF HM	ERLINK					=					
		00	UNT										
		MA SD	X					-	-	Р	ocorir	+:-	n of
			(number1,nu	imber2) 🗲	/					υ	escrip	πο	0
1				s in a range of cells.	•							_	
									_	Sel	ected	Fui	nction
									-				
		Heips	in this function		1	ax	Cancel						
		100 Million	and the second s				samala						
		_	-		-		_	-					

Figure 36 – Paste Function

4. The Function Arguments dialog box will appear (see Figure 37).

SUM			
Number1	B4:B6	(3850;1750;1	925}
Number 2		📧 – number	
Adds all the numbers in a	range of cells.	= 7525	
	Number1: number1	number 2, are 1 to 255 number ed in cells, included if typed as arg	s to sum. Logical values and tex iuments.
Formula result – 7525			
Formula result - 7525			

Figure 37 – Function Arguments Dialog Box

- 5. Select the cell(s) in the worksheet that contain(s) the number(s) to be used in the formula.
- 6. The *Number 1* field now displays the cell reference you selected.
- 7. Click OK. The results of the formula will appear in the selected cell.

## **Auto Calculate**

- 1. Select the cells that you want to include in the calculation.
- 2. The *status bar* will display the Sum and/or the Average of the cells that you selected (see *Figure 38*).

Pa	Calibri ste of B I booard R	+  11 <u>∎</u> +   <u>Ⅲ</u> + Font	т А` А` <u>Э</u> т <u>А</u> т Га	■ = = = = = = = = = = = 律律 參·・ Alignment 5	General \$ - % *.0 ÷.0 Number	• 🕎 Fa	onditional For ormat as Table ell Styles * Styles		G*= Insert + G* Delete + Format + Cells	2* Fil	ort & Find & lter * Select *	
	D4	• (*	<i>f</i> <sub>x</sub> 5250									
A	A	В	С	D	E	F	G	н	4	J	К	
1	Income Stateme	nt										
2												
3	and the second has	January	February	March								
4	Payroll	3850	4850	5250								
5	Rent	1750	1750	1750								
6	Supplies	1925	1980	2030								
7	Total Exp	7525	5		The	Sum a	and/or	Aver	age			
8							-		•			
9					tor	the s	Selecte	ed Ce	lls			
10					L							
11												
12							/					

Figure 38 – Auto Calculate

- 3. Other calculations can also appear on the *status bar*. To see the other calculations available, right-click on the status bar (see *Figure 39*).
- 4. A list will appear displaying the calculations you can perform.
- 5. Select the calculation of your choice.
- 6. The results of the calculation will appear in the Auto Calculate area of the status bar.

F	ile Home I	nsert Page L	ayout Form	ulas Data	Review V	iew						s 🕜 🗆 🖻	2
	Calibri	*  11 <u>U</u> *   <u>III</u> *   Font		■ = = = = = ■ = = = = = ■ = = = = = Alignment 5	\$ - % *.0 .00 .00 *.0	•	For	nditional For mat as Table Styles * Styles		G to Insert + G to Delete → Format + Cells	2* Fi	ort & Find & lter * Select *	
	D4	<b>*</b> (*	<i>f</i> <sub>x</sub> 5250										
A	A	В	С	D	E	1	F	G	н	1	J	K	Ţ
1	Income Statemen	ıt											1
2		And And And Annual In		The second se									
3	An exercision	January	February	March									
4	Payroll	3850	4850	5250									
5	Rent	1750	1750	1750									
5	Supplies	1925	1980	2030									
7	Total Exp	7525		1									
8													
9													
0				Status	Bar								
1				Status	bul								
2													
155	A M Sheet1	Sheet2 Shee	H2 / 21 /				Π.			10			Π

Figure 39 – Auto Calculate

## AutoSum

The following explains **<u>one</u>** way to use the AutoSum feature.

- 1. Click to select the cell where you want the answer to appear.
- 2. Click the AutoSum button located in the Formulas tab as shown in Figure 40.
- 3. Select the Function of your choice (example: *AutoSum*).
- 4. Adjust the selection box to capture the numbers that need to be manipulated.
- 5. Press the Enter key.

10			unction Library	te ä. Lookup i me * Reference	Math M	lore tions *	Name Manager	는 Define Name * 戶 Use in Formula 日 Create from Se letined Names		登=Trace Preceder 《岩Trace Depende 곳, Remove Arrow	nts 🐐 s = 🍝	Error Checking *	Watch Window	Calculati Options		culate Now Iculate Sheet	6
	D13	• (=	fx														
21	А	B	C	D	E	F	G	H	1	1	К	L	M	N	0	P	Q
1	Income Statem	ent															
2																	
3		January	February	March													
4	Payroll	3850	4850	5250													
5	Rent	1750	1750	1750													
б	Supplies	1925	1980	2030													
7	Total Exp	7525															
8																	

Figure 40 – AutoSum

The following explains a **<u>second</u>** way to gain the sum of numbers.

- 1. Click to select the cell where you want the results of the formula to appear (for example, in *Figure 41* you might select cell D7).
- 2. Type the equal sign (=).
- 3. Choose <u>one</u> of the following methods to enter your formula:
  - a) Type the cell reference (for example, in *Figure 41*, you might type D4).
  - b) Click the cell containing the number that you want to use in your formula (for example, in *Figure 41*, you might select D4).
- 4. Type an operator (such as the plus sign (+) for addition).
- 5. Repeat steps 3 and 4 as often as necessary to build your formula
- 6. Press the *Enter* key so that the answer appears in the cell.

Which of the previous two methods listed in this section do you think is easier?

	А	В	С	D	E
1	Income Statemer	nt			
2					
3		January	February	March	
4	Payroll	3850	4850	5250	
5	Rent	1750	1750	1750	
6	Supplies	1925	1980	2030	
7	Total Exp	7525			
8					

Figure 41 – AutoSum

## Changing Column Width and Row Height

#### Column Width

1. To change the width of a column, position the mouse pointer (white plus sign) over the right edge of the column heading until it changes to a double headed arrow (see *Figure 42*).

	А	В	С	D 🗲	► E	F
1	Income Statemer	nt				
2						
3		January	February	March		
4	Payroll	3850	4850	5250		
5	Rent	1750	1750	1750		
6	Supplies	1925	1980	2030		
7	Total Exp	7525				
8						
9						

Figure 42 – Adjusting Columns

- 2. Hold down the left-mouse button and drag until the column width adjusts to the size that you want.
- 3. Release the left mouse button and the column will display the new width.

Row Height

1. To change the height of a row, position the mouse pointer (white plus sign) between the row numbers until it changes to a double headed arrow (see *Figure 43*).

		А	В	С	D	E	F
	1	Income Statemer	nt				
	2						
(	3		January	February	March		
$\boldsymbol{\mathcal{I}}$	4	Payroll	3850	4850	5250		
	5	Rent	1750	1750	1750		
	6	Supplies	1925	1980	2030		
	7	Total Exp	7525				
	8						
	9						

Figure 43 – Adjusting Rows

- 2. Hold down the left-mouse button and drag the mouse until the height adjusts to the size that you want.
- 3. Release the left mouse button and the column will display the new width.

#### Automatically Adjusting the Column Width and Row Height

You can have Excel adjust a column width to fit the longest item in the column. To do this, double–click the right edge of the column heading. The column will automatically be changed to fit the longest text or number within the column.

The row height can be changed in a similar manner, the only difference being that the placement of the cursor will be located between the row headings instead of the column headings.

## **Formatting Numbers**

You can easily change the format of numbers in your worksheet. The following explains how to adjust the format of numbers.

- 1. Select the cells containing the numbers that you want to format.
- 2. Click the *Currency Style Button* on the *Home* tab (see *Figure 44*).

-	He Home In:	sert Pag	e Layout Form	ulas Data Revia	w Vie		Booki -	Microsoft Excel	-	-	-		-	-	-	- 0 	
4	ste Clipboard	Calibri B Z			Ser (F Aligner			General \$ • % •	+ 100 +00 100 +10		Format C as Table = Sty Styles	t ll	Ensert Delete	E Format	Σ AutoSum *		) a
	84	-6	£ 3850	2010	NWGEN.	000000	11090			1					Aut	wheele h	
14	A	8	C	D	E	F	G	н	- 1	3	K	E	M	N	0	P	Q
1	Income Statement																
2																	
3		January	February	March													
4	Payroll	3850	4850	5250													
5	Rent	1750	1750	1750													
6	Supplies	1925	1980	2030													
7	Total Exp	752	15														
2																	

Figure 44 – Formatting Numbers

3. The numbers will appear with the selected format.

**NOTE:** If you see number signs (####) appearing in a cell instead of the data that you entered, this is due to the width of the column not being wide enough to display the entire number. Refer to the section, *Changing Column Width and Row Height* on page 26 to make the necessary adjustment.

## **Formatting Text and Numbers**

- 1. Select the text that you want to format.
- 2. From the *Home* tab, select any of the formatting options indicated in *Figure 45*.

										Bookl	Microsoft E	xcel						
Pa	Cut	1200	Colibri		~ 11 ~	an aca		w Vie ≫ tje tje	≣r Wrap	Text e & Center *	General \$ * %	* * *.8 .00	Condition		Cell			Format
2	<ul> <li>OF Format Painte</li> <li>Clipboard</li> </ul>	i.			Font	-	9	Aligna	rent	(5	Num	ber G		g * as Table * Styles	styles *		Celis	
U.	A25		0	J	r .													
	A		В	1	С		D	E	F	G	Н	1	1	K	L	1	M	N
1	Income Statemen	t																
2																		
3			January		February		March											
4	Payroll	Ş	3,850.00	Ş	4,850.00	Ş	5,250.00											
5	Rent	Ş	1,750.00	Ş	1,750.00	Ş	1,750.00											
б	Supplies	\$	1,925.00	\$	1,980.00	\$	2,030.00											
7	Total Exp		7525															
8																		
9																		
10																		
11																		

Figure 45 – Formatting Text and Numbers

The following are three ways to adjust the appearance of data within a cell.

- **Bold** Select a cell and then click on the button labeled with *B* to make the contents bold.
- *Italics* To make the contents italicized, select the cell and click on the button labeled with an *I*.
- <u>Underline</u> To underline the cell contents, select the cell and click on the button labeled with a *U*.

The following explains how to change the font.

1. First, select the cell containing the data.

2. From the *Home* tab, click on the *Down Arrow* to the right of the font style (example: *Calibri*), and select the font of your choice (see *Figure 46*).



Figure 46 – Fonts

## **Adding Borders**

Borders can be added to enhance the appearance of your worksheet. The following explains how to add borders.

- 1. Select the cells where you want to add borders.
- 2. From the *Home* tab, click on the *Down Arrow* to the right of the *Border button* (see *Figure 47*).
- 3. From the menu that appears, select the type of border you want to add.
- 4. The selected border will be added to the worksheet.

1	Home In	nsert Page	Layout Formu	las Data Revie	ew View	Ê	
Pa	Cut Copy * Iste Clipboard	Calibri B Z <u>U</u>	$\frown$	$\begin{array}{ccc} \mathbf{A}^* & \mathbf{A}^* & \equiv \equiv \equiv \\ \hline & \mathbf{A}^* & \equiv \equiv \equiv \\ \hline & \mathbf{G} \end{array}$	Norme Alignme	Wrap Text	enter 🕶
-	D16	▼(°)	fx				
A	A	В	С	D	E	F	G
1	Income Statemen	t					
÷							
2		January	February	March			
2	Payroll	January \$ 3,850.00	February \$ 4,850.00	March \$ 5,250.00			
2 3	Payroll Rent	107		The second secon			
1 2 3 4 5 6	1 Contractor and a second	\$ 3,850.00	\$ 4,850.00	\$ 5,250.00			

Figure 47 – Borders

- 5. To remove the border, select the cells containing the border.
- 6. Click the *Down Arrow* to the right of the *Border* button (see *Figure 47*).
- 7. From the menu that appears, select the *No Border* button.

## **Printing a Worksheet**

You can print the worksheet on your screen to paper. The following explains how to do this.

- 1. Select the worksheet that you wish to print.
- 2. Click the *File* tab located at the top-left corner of the *Excel* window.
- 3. Select Print.
- 4. The *Print* window will appear (see *Figure 48*).
- 5. Review and select the print options in the window.
- 6. Click on the *Print* button.
- 7. The worksheet will print to the selected printer.

Home	Insert Page Layout Formulas Data Review View		<b>0</b>
Save Save As Open	Print Copies: 1 0		
Close	Printer	Income Statement	
o cent	BB480-B&W-3100-CANON on staff-print	January February March Payroll \$ 3,850,00 \$ 4,850,00 \$ 5,250,00 Rent \$ 1,750,00 \$ 1,750,00 \$ 1,750,00 Supplies \$ 1,925,00 \$ 1,980,00 \$ 2,030,00	
w	Printer Properties Settings	Total Eve \$ 7,525.00 \$ 8,580.00 \$ 9,080.00	
e & Send	Print Active Sheets		
p	Pages: to t Print One Sided		
Options Exit	Colleted +		
	Portrait Drientation		
	Letter 8.5° × 11"		
	Left: 0.7" Right: 0.7"		
	Print sheets at their actual size Page Setup		

Figure 48 – Printing

## Saving a Worksheet

- 1. Click the *File* tab located at the top-left corner of the *Excel* window.
- 2. Select the *Save As* button (see *Figure 49*).
- 3. The Save As window will appear.
- 4. Enter a file name.
- 5. Select the location where the file will be saved.
- 6. Click Save.

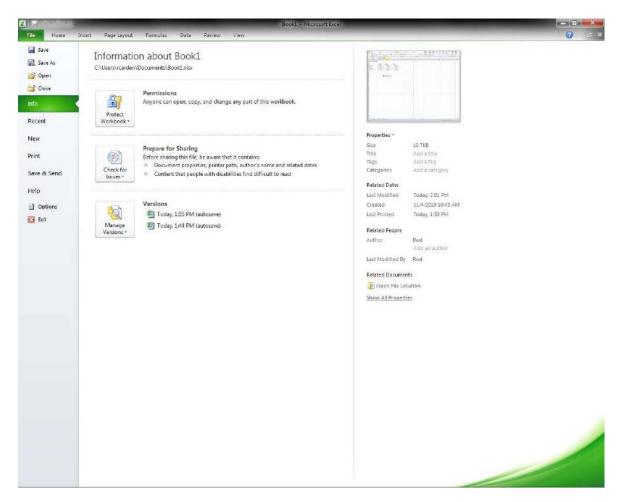


Figure 49 – Saving a File