

Computing Fundamentals

PRODUCE BASIC SPREADSHEETS

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Introduction

Welcome to the training manual “*Produce basic spreadsheets*”

The purpose of this manual is to give you the knowledge and skills to produce a basic spreadsheet or workbook.

This will include understanding the layout of a spreadsheet file, called a workbook, and key terminology related to this. You will learn how to enter data, how to enter and calculate formulas, and how to edit both data and formulas. You will learn how to save your work for retrieving it later, and how to make changes. You will also learn how to format your workbook so that it looks professional and is easy to read, including when it is printed. In addition, you will become familiar with the Help function to assist you in finding answers on how to do things not covered in this manual.

What is in this manual?

This training manual is divided into 5 sections:

- Section 1 Produce a basic spreadsheet
- Section 2 Retrieve, format and edit a workbook
- Section 3 Basic spreadsheet calculations
- Section 4 Use the Help function
- Section 5 Print a basic spreadsheet.

Each section starts with an introduction and explains the skills you will learn. At the end of the section you will have an opportunity to check your progress by answering some questions.

Skills you will learn:

After you have completed this manual, you will be able to:

- demonstrate the procedures for producing a basic spreadsheet
- demonstrate the procedures to retrieve, format and edit a workbook
- outline the procedures for performing basic spreadsheet calculations
- demonstrate the procedures for using the Help function
- outline the procedures for printing a basic spreadsheet.

How to use this manual

Work through the manual from the beginning. You know that it is divided into 5 sections. It is a good idea to complete a whole section in one go if you can. At the beginning of the section you will find a list of *skills you will learn*. Read these carefully and return to them when you have completed your work. It is important that you do not move on until you have learned all the required skills.

Read each section carefully. You may come across new words which you do not know. These should be explained in the *glossary* at the end of the manual. You will learn many new technical terms as you progress through this manual and it is important that you learn them all well.

At the end of each section, you will find an opportunity to '*Check your progress*'. These questions have been carefully designed to help you to see how well you have understood and learned the topic. The answers are given at the end of the manual. You can choose to look at the answers before trying to complete the question yourself - if you want to. But the only person you will be cheating is yourself. No-one will take in your manual and mark it for you. You yourself must judge how well you are doing.

You will also find some practical activities. You will need to collect the required equipment and carry out these activities. Your instructor or supervisor will assist you.

At the end of each section, you will find a *Summary*. Again, you should read it carefully to review what you have learned. It is a good idea to check the *Skills you will learn* at the start of the section again and make sure you have achieved them all. If not, you may need to revise the section again.

What these symbols mean

Symbols are placed in the left hand margin to draw attention to the type of information at that point. The symbols used in this manual are:



Read



Demonstrate/discuss - sometimes your instructor will demonstrate or discuss the use of tools and equipment.



Check your progress - these are easy exercises to test your understanding of the theory you have learnt. Typical correct answers are provided at the back of the manual.



Practical activity - these activities help you to practise some of the theory you have learnt.



Learning activity - these activities help you to relate the knowledge and skills in the sections to your own work situation.



Remember/Take Note



Revise



Safety/Caution/Beware

SECTION

1

Produce a basic spreadsheet document

Introduction

In this section of the training manual you will learn how to produce a basic spreadsheet document.

It includes the purpose of producing a basic spreadsheet document, the advantages and disadvantages of using a spreadsheet programme, and the procedures for using a basic spreadsheet programme.

This includes entering data into cells, modifying data entered and resizing cells to fit information entered.

Skills you will learn:

By the end of this section, you will be able to:

- state the purpose of using a basic spreadsheet application
- state the advantages and disadvantages of using a spreadsheet programme
- describe and apply the procedures for using a spreadsheet programme.

Purpose of spreadsheets

A spreadsheet is a programme that organises and keeps track of data and is generally used for numeric calculation. Spreadsheets are frequently used for their ability to perform mathematical calculations with large volumes of data, and to produce graphs and charts with ease. A spreadsheet file is called a **workbook**.

Spreadsheets are organised as grids with columns and rows in which numbers, formulas or text can be written. The columns are named using letters while the rows are named by numbers. The intersection of a column and a row gives a **cell**. A cell is named using the column and row it belongs to called the **cell reference**. **Row headings** are the numbers along the left of the worksheet and the **column heading** are the letters along the top of the worksheet. For example, the cell C5 refers to the cell formed by the intersection of column C and row 5.

	A	B	C	D	E
1					
2					
3					
4					
5			C5		
6					
7					
8					

A spreadsheet programme has two layers. In word processing, what you see is what you get. With a spreadsheet programme this is different. The data that you enter into the sheet is not always what you see on screen or the printout. For instance, you usually see the result of a calculation, not the formula itself.

Advantages of spreadsheets

There are numerous reasons why using a spreadsheet is much better than using a calculator or pen and paper.

- Using a spreadsheet saves time! The spreadsheet instantaneously performs mathematical calculations when set up. No more double and triple-checking calculations with a calculator.
- It is easy to change the data and get new results. The spreadsheet instantly recalculates the equation for you when you enter new numbers
- It is easy to make graphical representations of your data. In addition, you can present this information in different ways and easily manipulate the data entered into the spreadsheet.

- Allows for flexible presentation. You can alter column widths and row heights, and easily delete or add cells, columns and rows. You can also control the types of numbers you enter – for example, you can choose percentages, currency or set the number of decimal places.

Disadvantages of spreadsheets

- Formulas can be tricky. You must be very careful when you enter equations or use formulas to ensure that the spreadsheet is calculating the intended numbers and formulas correctly.
- It is not as text-friendly as word processing. Text can be entered (and lists even sorted alphabetically), but it is not good for entering lengthy text, like a letter.
- The worksheet can become awkward. As more and more data is entered, the worksheet expands off screen, so that not all data can be viewed at once. This can cause problems with finding information and navigating around the worksheet.
- Unless you have your own computer or 24-hour access to one, you will only be able to work at limited times when you get access. This could also cost money if you are using, for example, an Internet café
- You will have to take time to learn how to use the spreadsheet. For instance, sorting and filtering data are useful functions, but they take time to learn and perfect.
- The storage device on which you save your work can be lost, damaged or stolen.
- Printing will require a printer.

Procedures for using spreadsheets

Starting a spreadsheet

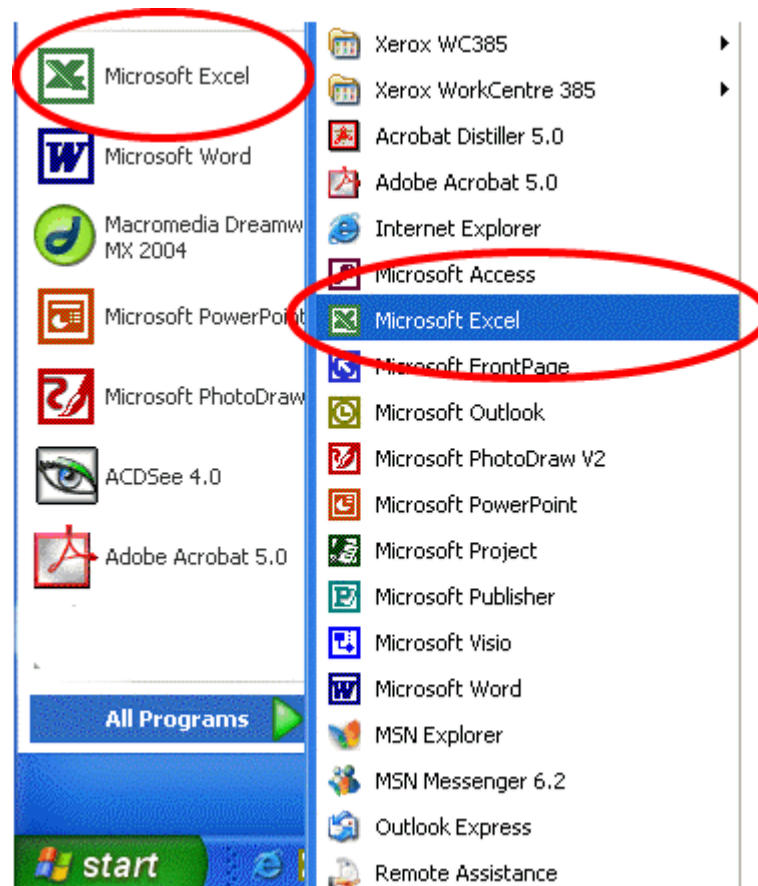
There are various ways to start a spreadsheet.

1. Use the Start menu.

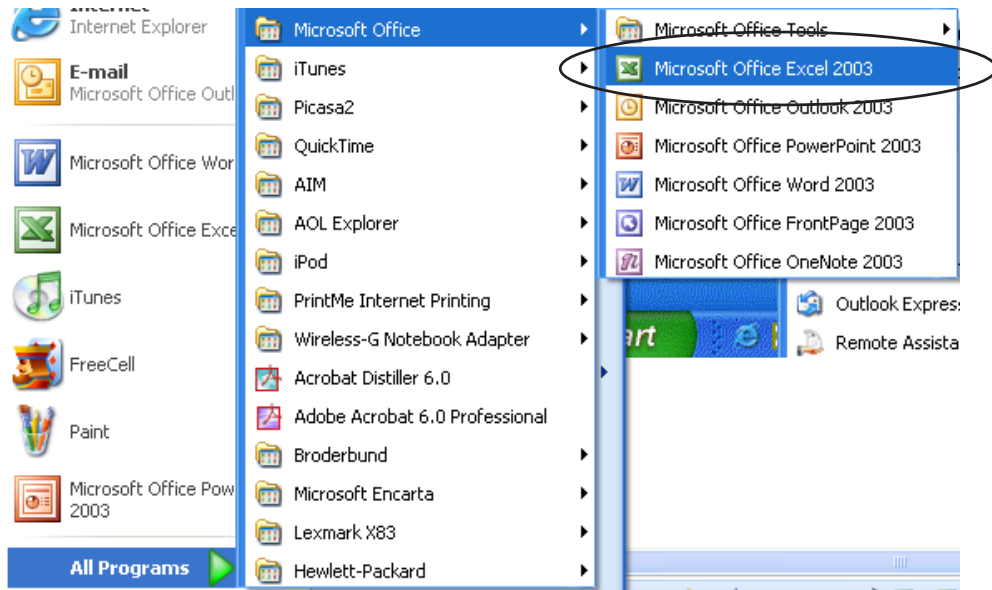
Click on *Start* 

(which you will see at the bottom left of the screen). A Start menu appears

Click on **All Programs** and drag the mouse pointer across the words **All Programs** towards the right - a new menu appears to the right of the Start menu.



Sometimes the program will be in a folder called Microsoft Office. Click on this folder and then click on the programme.



2. Use desktop icon

Sometimes there will be an icon directly linked to the programme on the desktop. Double-click on the icon and the programme will start.

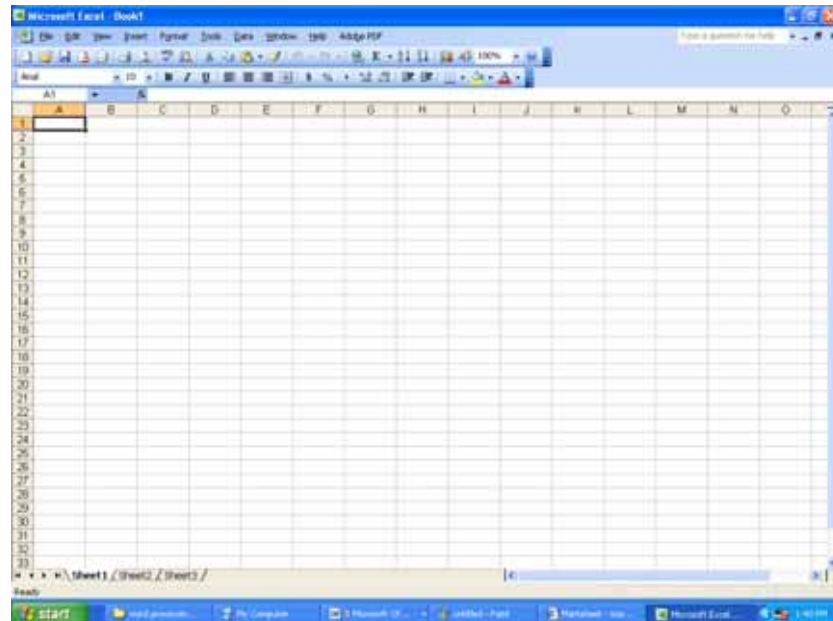


Creating a spreadsheet

Once you start the programme, your screen should look similar to this:

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					

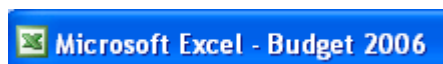
Click on the X in the upper right corner where it says 'Getting Started', to close this window. (If the 'Getting Started' dialog box doesn't appear, do not worry about this step.) Your screen should now look like the one shown here.



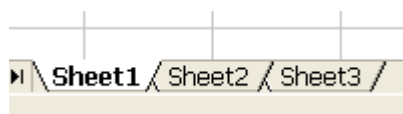
As stated previously, a spreadsheet file is called a *workbook*. When you open a new workbook, it is automatically named 'Book1' until you name it otherwise. Look at the Title Bar, the blue strip at the very top of the workbook.



For example, if you were typing a Fractions Test and named it "Budget 2006", when saving it, would look like this:



The largest portion of the screen is taken up by a view of the **worksheet area**; this area shows the grid made by the columns and rows. **Worksheets** are used to list and analyse data. At the bottom left of the screen are **worksheet tabs** that indicate the active worksheet. By default, new workbooks contain three *worksheets*.

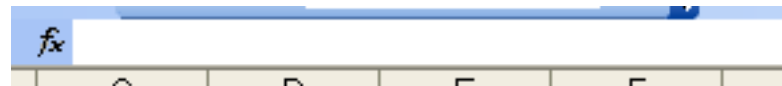


The **active sheet** is the one that is white and appears to be 'on top' of the others. To change the sheet you are working in (active sheet), click on the tab of another sheet.

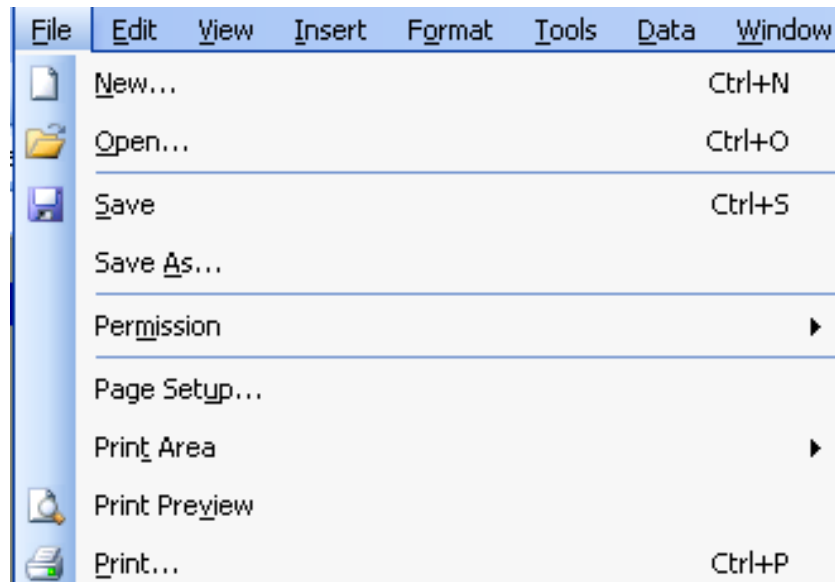
The thick black rectangle indicates the **selected cell**. Again, a cell is the intersection of a row and a column. The selected cell's reference, A1, appears in the **name box**. The **cell reference** is composed of the column letter followed by the row number.

	A	B	C
1			
2			
3			
4			
5			

To the right of the name box is the **Formula bar**, which is where text and formulas are entered and edited for each cell.



The **Menu bar** is directly beneath the **Title bar** and contains various menu options. These menus give instructions to the software. When you click on a word a menu is “pulled down”. This is known as a drop-down menu. For example if you click on “File” the **File menu** will pull down as follows:



Anytime you want to start a new workbook while the programme is open, you can click on *New* in the File menu. Also, do you notice the little picture to the left of the word **New**?



This is called an **icon** and corresponds to a **button** in the **Standard toolbar**. You could also click this button to start a new spreadsheet.

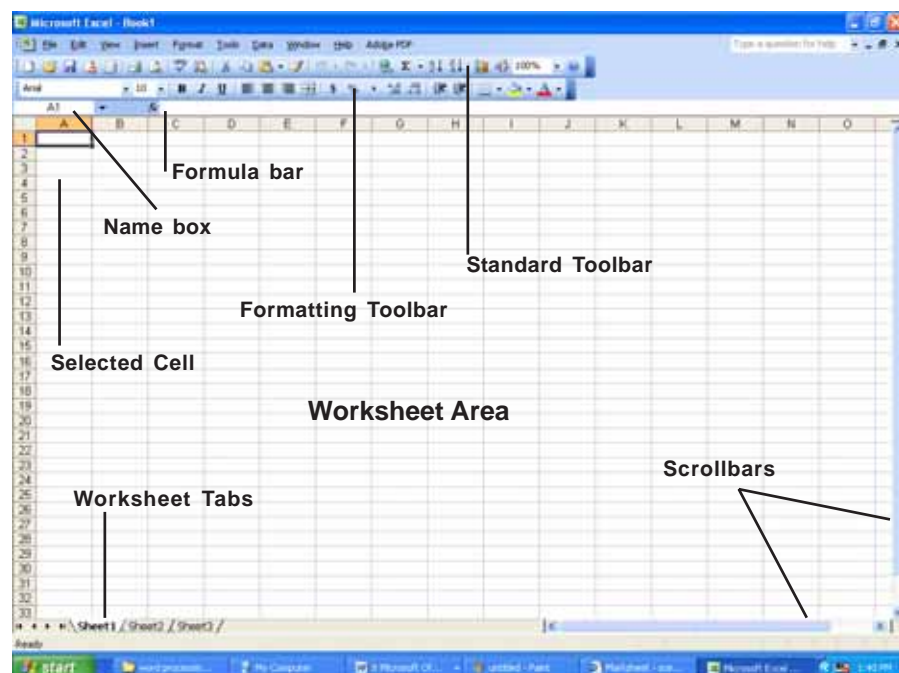
The **Standard toolbar** is below the Menu bar, and contains buttons that correspond to some frequently used menu commands.



The **Formatting toolbar** is usually located below or next to the standard toolbar. It contains buttons that correspond to several commands for formatting cells.

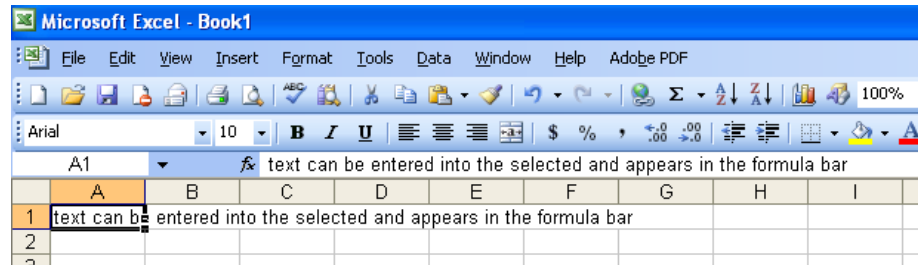


At the bottom and right of the screen are your **scroll bars**, which can be used to view parts of the worksheet that are off the screen.

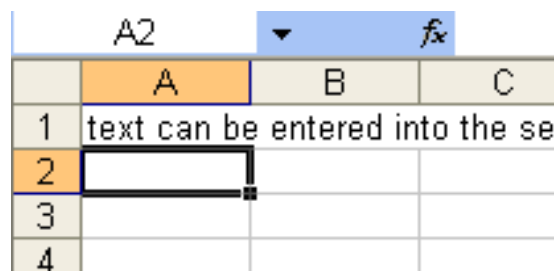


Entering data

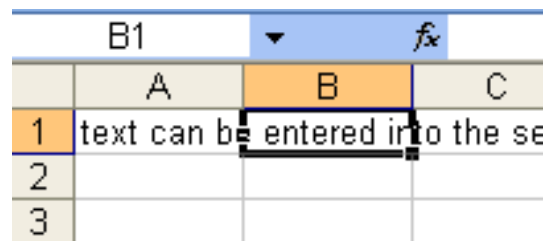
Cells can contain text, numerical values, formulas or functions. To enter data into a cell, first select the cell by clicking on it. As just described, the cell will be identified as selected with a thick black rectangle around it. Once selected, you can begin typing in the cell. The text will appear in the cell and also in the *formula bar*.



When the entry is complete, press *Enter*, *Tab* or use the *cursor arrows* to move to a new cell. Press *Enter* and the selected cell will now be the cell below (in the same column).



Tab will move the selected cell over to the next column (in the same row).



You can also use the *cursor arrows* to move around the worksheet and select any cell you desire.

The last way to select a cell is to simply use the mouse, and point and click in the desired cell. In the spreadsheet, the cursor looks like a small cross.

Do not move to a new cell when, as you are entering data, you cannot see the entire entry. It is still in the selected cell – look at the formula bar. Once you press enter, the entire entry will appear. If you cannot see the entire entry, you can resize the cell, which you will learn shortly.

When you enter text in a spreadsheet, the spreadsheet will try and predict what you want to write by identifying some letters. Let us say you are making an address list. In this example, the spreadsheet predicts that you are going to type 'Windhoek' again since you did this in cell C1. The word will be highlighted as shown.

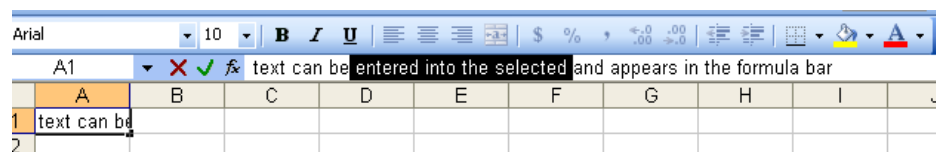
	A	B	C
1	Vilho	P.O. Box 123	Windhoek
2	David	P.O. Box 456	Oshakati
3	Letisia	P.O. Box 789	Windhoek
4			

If this is the word you want, you can just press the Enter key without finishing typing it yourself. If, however, this is not the correct word but you were really typing 'Walvis Bay', just continue typing as normal. As soon as you type the 'a' the highlighted bit will go away (since 'a' is not the next letter in Windhoek and therefore is obviously not the word you want). This function is called "auto-complete".

Modifying entered data

There are two ways you can change or delete data in a particular cell.

1. The first way is to simply select the cell and press the *Backspace* key or the *Delete* key. The entire entry of the cell will be deleted. You can then start entering data again if you want.
2. The second way to modify cells allows you to just alter or delete part of a cell. First you must select the cell you want to modify. You will see its contents in the *formula bar*. Now, using the mouse, click in the formula bar and alter the entry as you would in a word processing document.



Error values

If you use a spreadsheet programme, once in a while it might give you error values that are important to know. For instance, if you see a row of # in a cell, you have not done anything wrong.

That means that there is simply not enough space to show the value in the cell. Enlarging the column (which you will learn how to do shortly) will replace the ##### with the value.

In the table below are some of the common error messages and what they mean.

Error value in Microsoft Excel	Error value in Open Office Spreadsheet	Typical cause	Example
#NAME?	Err:511	Text not recognized in a formula	=1+B*2
#VALUE!	504 or #VALUE!	The wrong type of argument used in a formula	Text used instead of a number
#NUM!	#VALUE!	An error in a number used in a formula	A negative number for the root formula
#####	####	The calculated result is too long to display in the cell	
#DIV	Err: 503	Division by zero is not allowed	=345/0
Window with instructions opens	Err: 510	Variable is missing	=1+*2

Resizing cells

Data will not always fit perfectly in the cell size that the spreadsheet first opens with. If you type a longer entry in a cell, like given in the example above, it will overlap if the adjacent cells are empty. For instance, there was nothing entered in any other cell so the text appears over cells B1 to G1.

	A	B	C	D	E	F	G	H	I
1	text can be entered into a selected cell and appears in the formula bar								
2									

A cell may be resized by adjusting the width of the column or the height of the row using the mouse and the **click and drag** method. Notice the lines that divide the column headings and row headings.

Place the cursor (do not click yet!) on this dividing line. You will know your mouse is in the right place because the cursor will change to a double arrow. Once you see this double arrow, left-click the mouse and hold the button down. With the mouse button held down, drag the mouse to make the cell the desired size. You will see the line move as you drag the divider.

	A	B	C	D	E
1	text can be entered into a selected cell and appears in the formula bar				
2					

In our example, you would click on the divider between columns A and B and drag it until it is after the word cell.

	A	B	C	D
1	text can be entered into a selected cell and appears in the formula bar			
2				

Notice that all of the text is (still) in cell A1.

Saving a spreadsheet

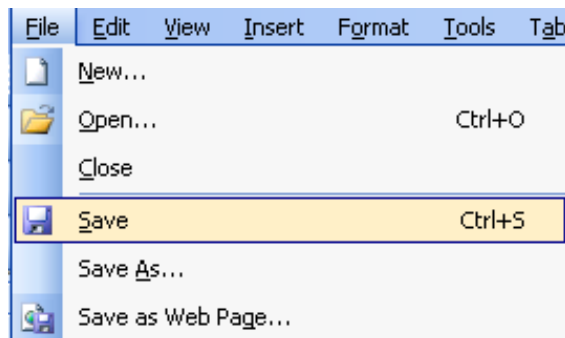
After you have been working for a few minutes on a document, STOP and SAVE. You can also set the auto-save function. This can be found under tools/options. Go to “save” and set the number of minutes as you work.

There are five ways to save a document.


1. Use the File Menu.
2. Use the Save button on the Standard toolbar
3. Use the Save command
4. Set the auto-save option
5. Press Cntrl and save.

1. Use the File Menu

Click on the File menu located on the Menu Bar and then click on Save from the drop-down menu.



2. Use the Save button on the Standard Toolbar

By clicking on this button , your document will automatically be saved.


3. Use the Save command

There are several keyboard shortcuts that perform certain functions in spreadsheet programmes.

Commands use the 'Control' key

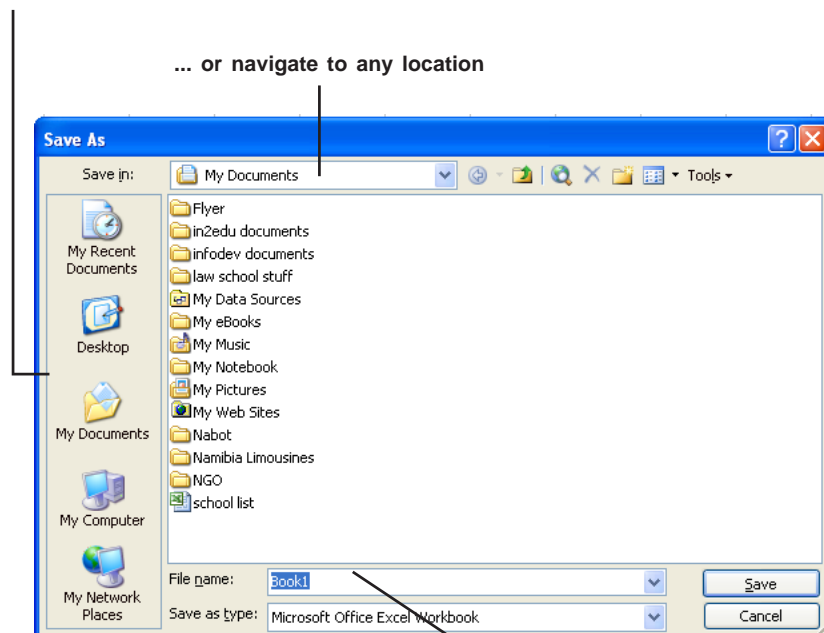


You will notice on the right-hand side of the file menu that there are various commands, which appear as Ctrl + some capital letter. Notice that the keyboard option next to Save is *Ctrl+S*.

In this case, if you wanted to save a file, you could press  and keep it pressed down and with the other hand you press the 'S' key once.

Any way you choose to use, you will see a pop-up window appear on the screen. You must show the computer exactly where you want to save the file.

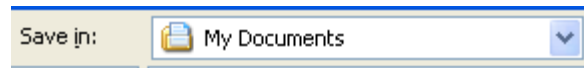
Click to navigate to these special locations ...



Delete the highlighted default file name and type in your own, unique document name.

STEP 1 - Save location:

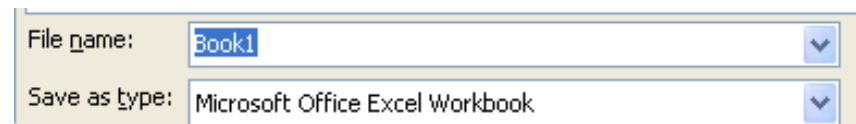
The first thing to do is to ensure that you are saving the file in the correct folder. Look at what is written in the *Save in:* line at the top of the pop-up window.



The default saving location for many programmes is a folder located on your desktop name “*My Documents*”. Until you get accustomed to finding your way around your computer, this would be a good place to save things. As you gain experience you may want to create your own folders on the C: drive as a saving location for your documents, images and any other files you create.

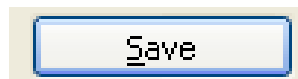
STEP 2 - Document name:

The first time you save you will want to give your document a new and unique name (remember it is called Document 1 when you first open a new blank document). Type your chosen file name in the *File name:* box at the bottom of the pop-up window.



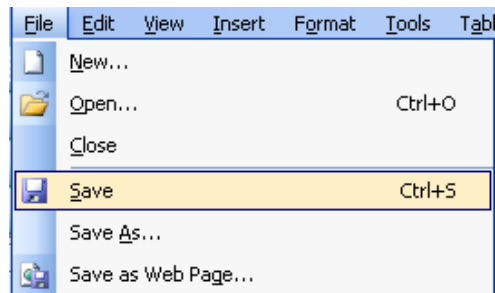
STEP 3 – Save!:

Once you have chosen where to save your document and what its name will be, click on the *Save* button .



Save versus Save As...

If you notice in your File menu, there are options for both **Save** and **Save As....**



You use Save the first time you save a file, where you will have to name your file and save it in a specific location. It is recommended that you keep saving the file every few minutes. You do not have to name it every time since you have already given it a name. You can save an existing file by merely clicking on the **Save** button.



You use the Save As command when you want to:

- change an existing file name
- change the place where the file is stored
- change the file type.

When you choose to use *Save As...* you will be presented with the same pop-up screen as you would when you use *Save* (see above).

Again, *Save early and Save often!* You never want to lose work that you have spent much time and energy on.

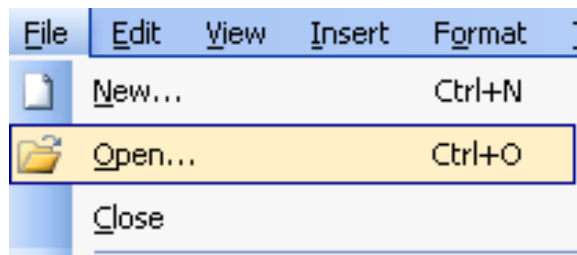
Opening a workbook

There are three ways to open a workbook.

1. Use the File menu.
2. Use the Open button on the Standard Toolbar.
3. Use the Open command.

1. Use the File menu

Click on the File menu located on the Menu Bar and then click on **Open** from the drop-down menu.



2. Use the Open button on the Standard toolbar

3. Click on this button:



4. Use the Open command

Similar to the Save command, you will have to press



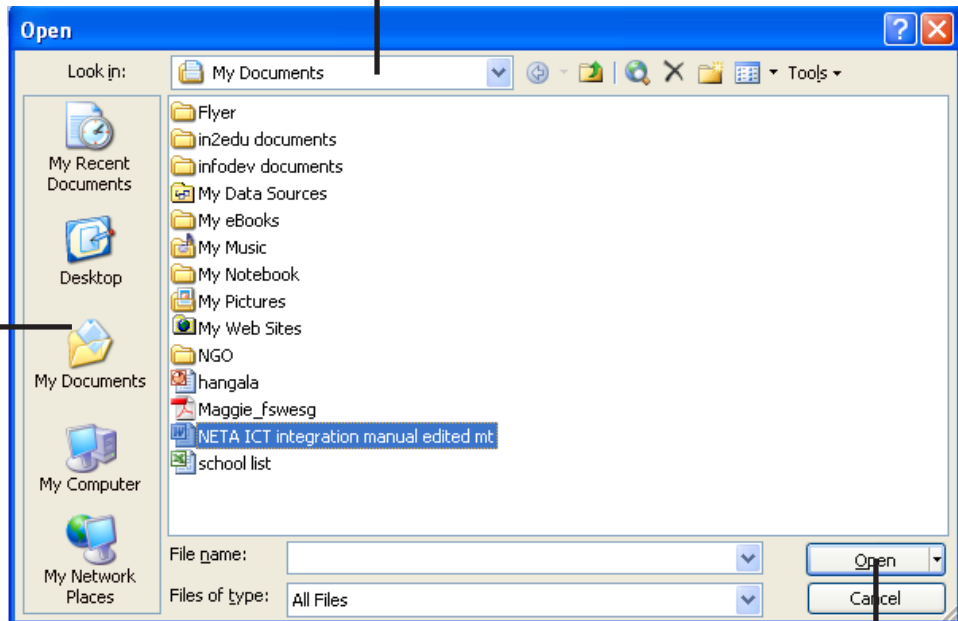
and keep it pressed down while you press the “O” key once with your other hand.

Once you have done one of these three procedures, you will see this pop-up window:

You need to navigate around to locate the document you want to open. Once you locate it, click on it and click on Open. Another way is to “double-click” on the file name. The file will open automatically.

...or to navigate to any location on your computer or external device...

Click on icon to navigate to these special locations...




... then click here to open the document.

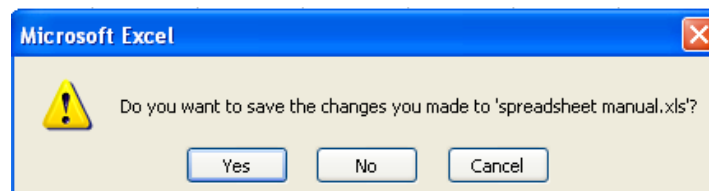
You need to navigate around to locate the document you want to open. Once you locate it, click on it and click on Open.

Closing a spreadsheet

Closing a document is quite simple. There are two Xs in the upper right corner of your window:



Click on the smaller X  to close the specific workbook you are working on. Unless you have just saved your work, the programme will prompt you with this pop-up window:



Typically you will want to click on **Yes**, unless you have made changes that you do not want saved, in which case you would click **No**. If you have clicked this X by mistake, which can happen, just click **Cancel** and you will return to your workbook to continue working on it.

Exiting a spreadsheet programme

Exiting the spreadsheet programme is very similar to closing a workbook. Remember the two Xs in the upper right corner.



This time click on the one above, the big X in the red box.

If you have not saved your work currently, this will bring up a pop-up window asking you if you want to save changes made for each spreadsheet you have currently open. For instance, if you have three different workbooks open which you have been working on, three pop-up windows will appear asking you if you want to save changes for each of the workbooks.

If you have not saved your workbook at all, the spreadsheet programme will recognise this and prompt you to save. You will be asked if you want to save changes to 'Book 1', as the document has not yet been named

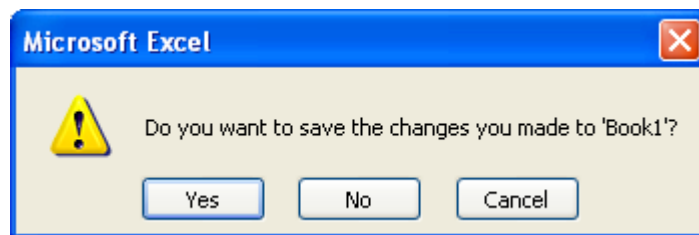


Figure 1: Microsoft Excel closing down window

If you want to save this work, click **Yes** and the Save pop-up window will appear. You proceed as per the instructions described above.

Once you say **Yes** or **No** to saving changes on an already named spreadsheet, the spreadsheet programme will exit.



CHECK YOUR PROGRESS 1

ACROSS

- 1 There are automatically three of these when you open a new workbook
- 4 Where you can access the File menu
6. This bar is where the name of your workbook appears
7. Letters at the top of the worksheet area are headings for these
9. What you do when you want to shut down the spreadsheet
10. Toolbar located beneath the standard toolbar
12. Toolbar that contains the buttons for saving and starting a new workbook
13. Crtl+L is the command for this function
14. This bar is where you can edit a selected cell

DOWN

1. The name of spreadsheet files
2. A cell indicated by a thick black rectangle around it is this
3. These bars allow you to view parts of the worksheet that are off the screen
5. Numbers to the left of the worksheet area are headings for these
7. One method used to change the size of cell
8. Will indicate the active worksheet
11. Where the selected cell's reference name appears only if "C" - copy of this is provided
12. Toolbar that contains the buttons for name saving and starting a new workbook
13. Crtl+S is the command for this function
14. This bar is where you can edit a selected cell



PRACTICAL ACTIVITY 1

PRODUCE A BASIC SPREADSHEET DOCUMENT

1. Open a blank workbook.
2. Save the workbook as 'Spreadsheet Activity 1' in My Documents.
3. Enter this data:
 - In cell A1 First Name
 - In cell A2 Surname
 - In cell A3 Address
 - In cell A4 Phone number
 - In cell A5 Birthdate
4. Resize all the columns so that they fit the text in each by using the "auto-fit" feature under format.
5. Go back to the cell titled 'Address' and add the 'Postal' so that cell A3 now says 'Postal Address'.
6. Enter at least three contacts of yours.
7. Resize the column widths again to fit all data (see 4).
8. Close the workbook (make sure you save when prompted).
9. Close the spreadsheet programme.

Summary

Well done! You have completed Section 1 on *Produce a basic spreadsheet document*.

You should now be confident that you understand the purpose, advantages and disadvantages of using a spreadsheet programme.

You should also be confident that you have the knowledge and skills to produce a basic spreadsheet document.

If you feel confident that you have achieved the above, you can move on to the next section where you will learn how to format and edit a workbook.

If you are unsure of any part, go back and revise it or ask your instructor or supervisor for assistance.

Section

2

Format and edit a workbook

Introduction

In this section of the manual you will learn how to format and edit a workbook.

It includes the basic formatting features such as **bold**, *italics*, underline and alignment, and the basic editing features such as cut, copy, paste, undo/redo, move and insert.

In order to perform these tasks, you will also have to learn how to select cells and sections of data/text by using both the mouse and the keyboard.

Skills you will learn

By the end of this section, you will be able to:

- describe the basic formatting and editing features of a basic spreadsheet
- demonstrate the procedures to apply basic formatting features
- demonstrate the procedures to apply basic editing features.

Formatting features

Formatting involves specifying the font, alignment, margins and other properties of the text. If you have used a word processing programme before, you will find that formatting a spreadsheet works the same way. This all determines how the workbook will appear on the screen and how it will look when printed.

Every spreadsheet will have a formatting toolbar, as mentioned in Section 1, with buttons for the most frequently used formatting tools:



In most, the button icons on the formatting toolbar give you an idea of what that button does. If not, just hold the mouse pointer over the button for a couple of seconds and the name of the button will appear.

As a beginner, you start by focusing on only certain formatting tools. You should, however, always feel comfortable playing around with other tools. You can always undo mistakes!

Character emphasis

Sometimes you want a word or phrase to stand out, by making it **bold** or *italic* or by adding underlining. ?

Button on Formatting toolbar	Function of emphasis button	What the emphasis will look like
	Turns boldface character emphasis on or off.	Emphasis on will look like this.
	Turns italic character emphasis on or off.	<i>Emphasis on will look like this.</i>
	Turns character underlining on or off.	<u>Emphasis on will look like this.</u>

As with word processing, you can apply this direct formatting when you are typing the text, or later, as you edit. You can even add more than one emphasis button to combine the emphases – ***bold italic***, for example, or *underlined italic*, and yes, even ***underlined bold italic!***

Add emphasis as enter data

1. Select a cell.
2. Click an emphasis button.

Notice that when an emphasis button is on, the button will be a yellow color **B I U**.

3. Type your emphasised text.
4. Click the emphasis button again to turn off the emphasis.
When you turn off the button, it will appear blue again

The screenshot shows a spreadsheet application interface. At the top, there is a toolbar with various icons. Below the toolbar, the font settings are set to 'Arial' and size '10'. The 'B' (Bold) button is highlighted in yellow, indicating it is active. The spreadsheet grid shows cell A1 selected, containing the text 'type text123'. A label '1. Select a cell' points to cell A1. A label '2. Click emphasis button' points to the 'B' button in the toolbar. A label '3. Type word with emphasis' points to the text in cell A1. A label '4. Click to turn off emphasis' points to the 'B' button in a separate inset box on the right, which is shown in its blue, inactive state.

Add emphasis after data is entered

1. Select the cell you want to emphasize.

The screenshot shows the spreadsheet application with cell A1 selected. The text 'type text123' is entered in the cell. The font settings are 'Arial' and size '10'. The 'B' button in the toolbar is not highlighted, indicating it is inactive.


2. Click an emphasis button **B I U**.
3. Click another emphasis button if you want to use more than one **B I U**.




The screenshot shows the spreadsheet application with cell A1 selected. The text 'type text123' is entered in the cell. The font settings are 'Arial' and size '10'. The 'B', 'I', and 'U' buttons in the toolbar are all highlighted in yellow, indicating they are all active.

Remove the emphasis

1. Select the cell with emphasis.
2. Click button (will be yellow if on) to turn off any pressed emphasis button (button will now be blue).

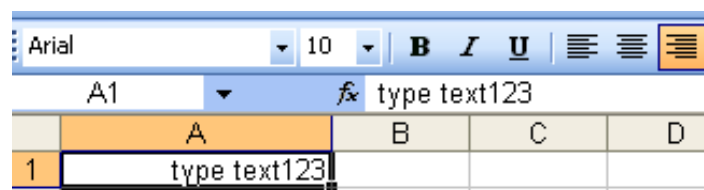
Alignment

The alignment controls how the lines of text are arranged relative to the edges of the cell. This means the vertical and horizontal positioning of the text or data within a cell. There are three different options for text alignment.  Again, the button that is in yellow is the selected alignment for the text being typed or formatted.

Button on Formatting toolbar	Function of particular alignment	Typical purpose
	Left-aligns the current text or paragraph.	Align left is the default alignment for text.
	Centre-aligns the current text or paragraph.	
	Right-aligns the current text or paragraph.	Align right is the default alignment for numbers.

Changing the alignment of any cell is very simple.

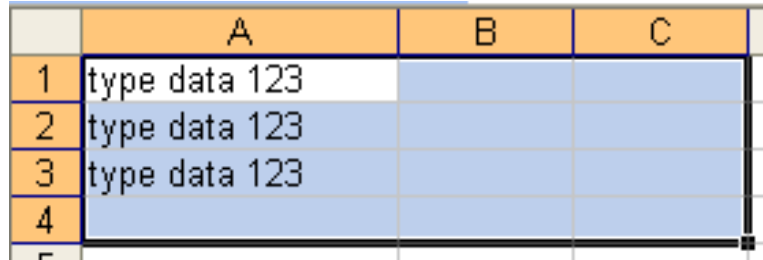
1. Select the cell of which you want to change the alignment.
2. Click an alignment button.



Formatting multiple cells

To select certain cells, you must select all of them by highlighting. The term highlighting refers to the change in colour or shade when cell is selected.

For instance, there are 12 cells highlighted in this figure.



	A	B	C
1	type data 123		
2	type data 123		
3	type data 123		
4			

You can highlight cells in two ways (you can choose the easiest for you):

- Click and drag the mouse pointer over the cells you want to select. (To use the 'click and drag' method, hold the left mouse button down while you drag the mouse over the cells you want to format.)
- Click on the first cell. Then use Shift and cursor arrow keys together to select cells.

To deselect a range of cells, simply left-click once on any non-selected cell and the selection will disappear.

To format an entire column or an entire row, click on the column or row heading to select the whole column or row. Like when resizing a cell, the cursor will look different when you should click. It will look like a small black arrow. ↓ When the entire column/row is selected, it will be filled in blue.

Example: All of column A is selected.

	A	B	C
1	type data 123		
2	type data 123		
3	type data 123		
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

Example: All of row 1 is selected.

	A	B	C	D	E	F
1	type data 123					
2	type data 123					
3	type data 123					
4						

Selecting non-adjacent cells, rows or columns is also possible. To do this, hold down the Ctrl key on the keyboard and then click on the desired cells, columns or rows with the cursor.

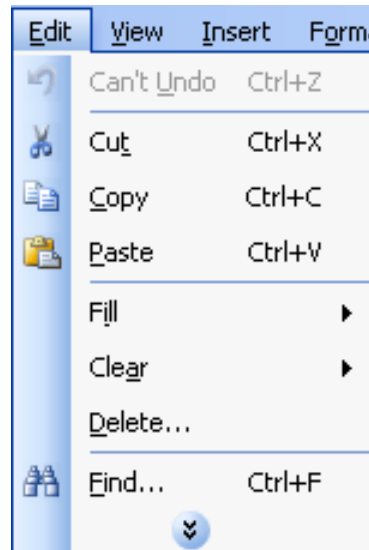
Once highlighted, click on the format buttons that you want.

	A	B	C	D
1	type text123			
2	type text456			
3	type text789			
4				

Editing features

Editing data is an essential function of a spreadsheet. Whether you are creating an address book, a financial report, or a mark sheet, it is almost certain that you are going to need to make some changes. A spreadsheet provides a variety of ways to edit. To edit existing content, you simply select the cell and make your changes.






There is a whole menu devoted to editing called **Edit** in the Menu bar.



As with the File menu discussed in Section 1, you will notice icons next to the functions that correspond with buttons on the Standard toolbar.



For this manual, we will concentrate on five editing tools.

Button on Formatting toolbar	Name of button	Purpose
	Cut	Cuts the selection from a cell or cells. Can be used to paste (inserted) somewhere else in the spreadsheet.
	Copy	Copies the selection. Can be pasted (inserted) somewhere else in the spreadsheet.
	Paste	Pastes (inserts) the contents cut or copied to location you specify.
	Undo	Undoes the last action. The down arrow displays a series of actions that can be undone or restored.
	Redo	Redoes the last action that was undone using the Undo button. The down arrow displays a series of actions that can be restored.

You can also select multiple cells, as just described, and change them all at once.

Many times when you are creating a workbook you will want to move cells, copy cells and even cut cells.

Moving Cells

1. Select the cell or highlight the cells to be moved.
2. Click the **Cut** button.



When you Cut, a blinking box will outline the selection.

3. Click in the cell where you want to move the selected/highlight cell(s) to.

	A	B
1	type text123	
2	type text456	
3	type text789	
4		
5		
6		
7		
8		
9		
10		

4. Click the **Paste** button .

	A	B
1		
2		
3		
4		
5		
6	type text123	
7	type text456	
8	type text789	
9		
10		

Copying Cells

Use Copy when you want the original cells to stay in its current location.

1. Select a cell or highlight cells.
2. Click the **Copy** button .



3. Click the cell(s) where you want to copy the selected cell(s) to.
4. Click the **Paste** button .



Undoing and Redoing

A terrific feature about spreadsheet is that you can quickly undo mistakes.

Undo one mistake

As soon as you realize the mistake, click the Undo button

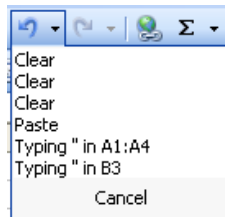


to restore the workbook to its original state.

Undo several mistakes

When you know that you have made several mistakes, you can:

- keep clicking the Undo button until you have returned the workbook to its original state
- click the down arrow at the right of the Undo button to see a list of actions that you can undo. Click on the last editing you want to undo and everything from that point will also be undone.



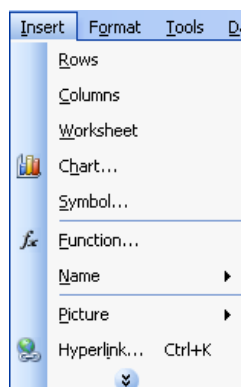
Redo and Undo

Spreadsheets also allow you to change your mind. When you have undone one or more mistakes and then decide they were not mistakes at all, you can restore them with the Redo button. It works exactly like the Undo button – just think of it as the Undo Undo button



Insert

Another menu that drops down from your menu bar is **Insert**.



All of these options are tools for inserting something into your spreadsheet, whether it is another row, worksheet or chart.

If you want to insert a row, first click on the row below the inserting point. For instance, if you want to insert a row above Row 2, click on Row 2. Then go to the *Insert* menu and click on **Row**. If you want to insert a column, click on the *Insert* menu, then **Column**. A column will then be inserted to the left.

If you just want to insert a single cell, right-click on a cell and click on **Insert**.

You will see this window

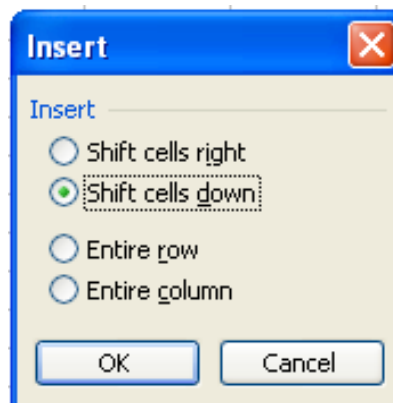


Figure 2: Insert menu on microsoft excel

You can choose from this pop-up window whether you want to insert a cell above (**Shift cells down**) or insert a cell to the right (**Shift cells right**). You can also insert a row (**Entire row**) or a column (**Entire column**).

Of course, if you make a mistake and insert a cell or column in the wrong place, you can always Undo.



CHECK YOUR PROGRESS 2

FORMAT AND EDIT A WORKBOOK

1. What are the three emphasis features mentioned? Sketch each button that adds this emphasis next to your answer.

1. _____
2. _____
3. _____

2. List the 4 steps that move cells to another spot in the workbook?

1. _____
2. _____
3. _____
4. _____

3. Identify the alignment:

	A
1.	1. How is this cell aligned?
	2
2.	2. How is this cell aligned?
	4
3.	3. How is this cell aligned?
	6

1. _____
2. _____
3. _____

4. What is another name for Redo? Why?



PRACTICAL ACTIVITY 2

FORMAT AND EDIT A WORKBOOK

1. Open 'Spreadsheet Activity 1'.
2. Select Row 1 and add bold emphasis.
3. Highlight all your data – should be 20 cells.
4. Cut these cells and paste them on Sheet 2.
5. Resize the column widths so that all data can be seen.
6. Make all the heading in Row 1 centre aligned.
7. Save changes.
8. Close programme.

Summary

Well done! You have completed Section 2 on *Format and edit a workbook*.

You should now be confident that you know what the terms 'bold', 'italics' and 'underline' mean, and how to format your workbook by using different alignments.

You should now also be able to manipulate and move around text in your workbook by using the editing features such as cut, copy, paste, redo/undo, move and insert.

If you feel confident that you have achieved all the above, you can move on to the next section, where you will learn how to apply simple spreadsheet calculations.

If you are unsure of any part, go back and revise it or ask your instructor or supervisor for assistance.

Section

3

Basic spreadsheet calculations

Introduction

In this section of the training manual you will learn how to do simple calculations such as addition, subtraction, division and multiplication on a spreadsheet document.

Skills you will learn:

By the end of this section, you will be able to:

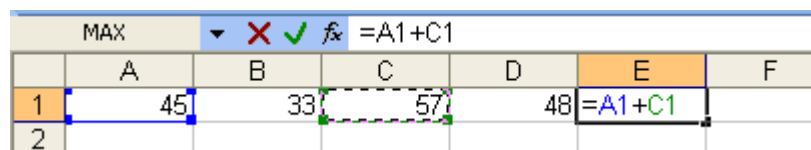
- describe the procedures to perform basic spreadsheet calculations
- apply the procedures to perform basic spreadsheet calculations.

Basic spreadsheet calculations

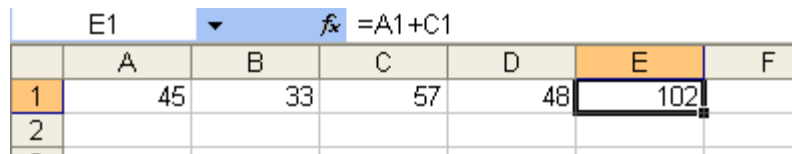
There are numerous calculations and formulas that a spreadsheet can perform. In this section you will only learn a few of the basic ones to get you started.

Entering Formula:

Place the cursor in the cell in which you want the answer (result of the formula) to appear. All formulas start with an = sign. This tells the spreadsheet this cell will 'equal' some formula that you are entering. Type in your formula; it will appear in the *formula bar*. Press **Enter** once you have typed the formula and the answer should appear.



When dealing with formula, you should refer to the cell address instead of the value in the cell e.g. =A1+C1 instead of 45+57.



Notice when you press Enter, the answer will appear. However, if you look in the formula bar, it still shows the formula. This means that cell E1 is told to calculate the total of cell A1 and cell C1. If you change a value in one of these cells, the answer will change accordingly.

+ means add	e.g. A1+C1	adds the value (number) in A1 to the value (number) in C1
- means subtract	e.g. A1-C1	subtracts the value (number) in C1 from the value (number) in A1
* means multiply	e.g. A1*4	multiplies the value (number) in A1 by 4
/ means divide	e.g. A1/3	divides the value (number) in A1 by 3

Use BODMAS if you are using multiple operators such as brackets first, then division, multiplication, addition and subtraction

$$\text{e.g. } = ((A2-B2)*3)-100$$

Notice that individual sums within a sum are bracketed and appear at the beginning of the formula.

TRUE/FALSE Statements

You can also create formulas where the value is a logical statement – True or False. This is used when calculating greater than or less than formulas.

> means greater than	e.g. A1>C1	Determines if the value (number) in A1 is greater than the value (number) in C1. Answer will be TRUE or FALSE.
>= means greater than or equal to	e.g. A1>=C1	Determines if the value (number) in A1 is greater than or equal to the value (number) in C1. Answer will be TRUE or FALSE.
< means less than	e.g. A1<C1	Determines if the value (number) in A1 is less than the value (number) in C1. Answer will be TRUE or FALSE.
<= means less than or equal to	e.g. A1<=C1	Determines if the value (number) in A1 is less than or equal to the value (number) in C1. Answer will be TRUE or FALSE.
= means equal to	e.g. A1=C1	Determines if the value (number) in A1 is equal to the value (number) in C1. Answer will be TRUE or FALSE.

Example 1

E1						fx	=A1>C1
	A	B	C	D	E		
1	45	33	57	48	FALSE		
2							

Since the value (number) in cell A1 (45) is not greater than the value (number) in cell C1 (57) the answer (shown in cell E1) is FALSE.

Example 2

F1							fx	=A1<=C1
	A	B	C	D	E	F		
1	45	33	57	48	FALSE	TRUE		
2								

Since the value (number) in cell A1 (45) is less than or equal to the value (number) in cell C1 (57) the answer (shown in cell F1) is TRUE.

Example 3

	A	B	C	D
1	45	33	57	
2				
3	45	45	TRUE	
4				

Since the value (number) in cell A3 (45) is equal to the value (number) in cell B3 (45) the answer (shown in cell C3) is TRUE.



CHECK YOUR PROGRESS 3

BASIC SPREADSHEET CALCULATIONS

Write the formula that you would enter into the formula bar to calculate:

1. C3 plus C4 minus C5 _____

2. C4 divided by G4 _____

3. Is H1 less than H2? _____

4. The sum of D6 and D7 multiplied by E8 _____

5. Is F4 greater than or equal to J6? _____

6. Is F4 equal to F6? _____

7. The product of G5 and G6 divided by G7 _____



PRACTICAL ACTIVITY 3

BASIC SPREADSHEET CALCULATIONS

1. Open a 'Spreadsheet Activity 1'.
2. Select Sheet 3 for this activity.
3. In cell A1, type '=345+5877'. What result do you get? Where do you find it?
4. In cell B1, type '=A1-300'. What result do you find in B1?
5. In cell C1, type '=(B1*7)+3'. What result do you find in C1?
6. Select cell B1 and replace the number '300' with '10'. What result do you find in cell C1?
7. Select cell A1 and replace the number '345' with '20'. What results do you find in cells B1 and C1?
8. In cell D1, type '=A1>B1'. What result do you get?
9. In cell E1, type '=C1<B1'. What result do you get?
10. Close the workbook and programme.

Summary

Well done! You have completed Section 3 on *Basic Spreadsheet Calculations*.

You should now be confident that you know and understand the procedures to perform simple arithmetic calculations in a spreadsheet document.

If you feel confident that you have achieved the above, you can move on to the next section, where you will learn how to use the Help function in a spreadsheet document.

If you are unsure about anything, go back and revise or ask your instructor or supervisor for assistance.

Section

4

Use the Help function

Introduction

In this section of the training manual you will learn about the procedures to use the Help function when producing a spreadsheet document.

This will cover how to search for topics and use the hyperlinks to move around the tool.

Skills you will learn

By the end of this section, you will be able to:

- state the purpose of the Help function
- describe the procedure for using the Help function
- apply the procedure for using the Help function.

Spreadsheet Help functions

Purpose of the Help function

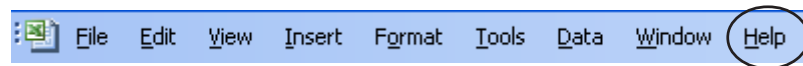
Most computer programmes have a Help function, which provides a quick way to find out how to do a particular task. If you are uncertain how to do something in spreadsheet, the Help function is there to guide you, step-by-step, on how to perform that task.

The advantage of the Help function is that it is a resource that requires nothing but your computer. The Help function also often uses hypertext, which means you can click on a link to read a new, related Help topic.

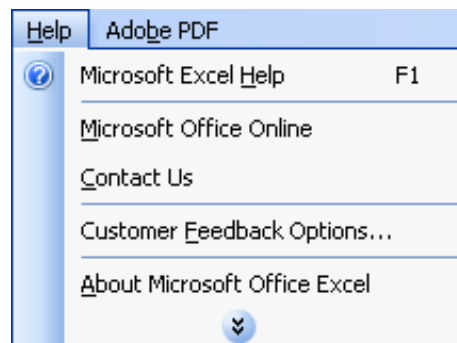
Use the Help function

There are three ways to access the Help function:

- a) use the **Help** menu located in the menu bar.
 - b) click on the button in the standard toolbar.
 - c) press F1.
1. Using the **Help** menu located in the menu bar.



Click on **Help** in the menu bar and this drop-down menu will appear.



Click on **Microsoft Excel Help**, or the equivalent, to open the Help function.

2. Clicking on the button in the standard toolbar.



Click on this button



to bring up the spreadsheet *Help* function.

3. Pressing F1.

You can also press the F1 key in the function keypad at the top of your keyboard to bring up the *Help* function.

In whatever way you access the Help function, this dialog box will come up on the right-hand side of the screen.

Type the word or phrase for the task you need assistance for in the box under **Search for:...** Once you type the word or phrase to search for, press the *Enter* key and the function will produce the search results.

Click here to get a Table of Contents for all the help provided for spread-sheets. The window below will appear:

Excel Help

Assistance

Search for:

Table of Contents

Microsoft Office Online

- Connect to Microsoft Office Online
- Get the latest news about using Excel
- Automatically update this list from the web

More...

Assistance

Training

Communities

Downloads

See also

- What's New
- Contact Us
- Accessibility Help
- Online Content Settings...

For the best content, view the online Table of Contents.

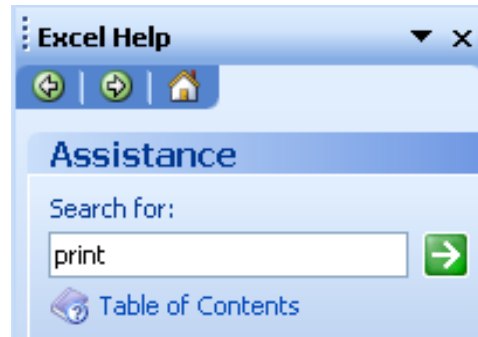
Learn more


Table of Contents

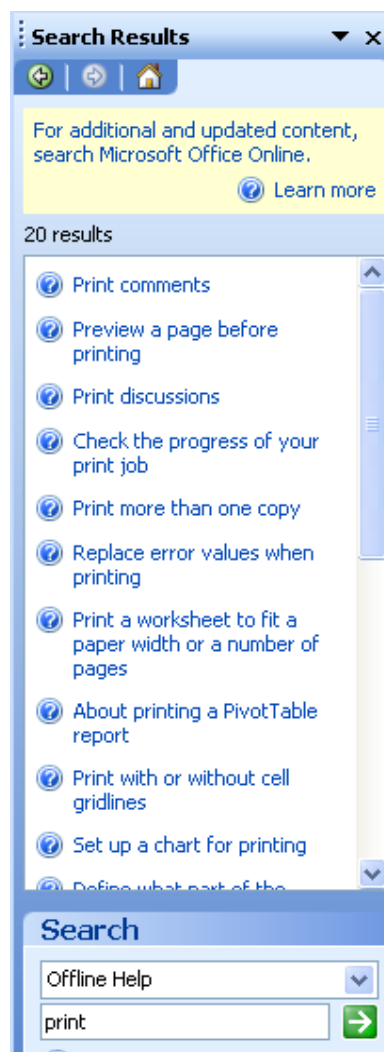
- Startup and Settings
- Printing
- Workbooks and Worksheets
- Working with Data
- Security and Privacy
- Excel and the Web
- Sharing Information
- Automating Tasks and Programmability
- Language-Specific Features
- Microsoft Excel Visual Basic Reference

Example:

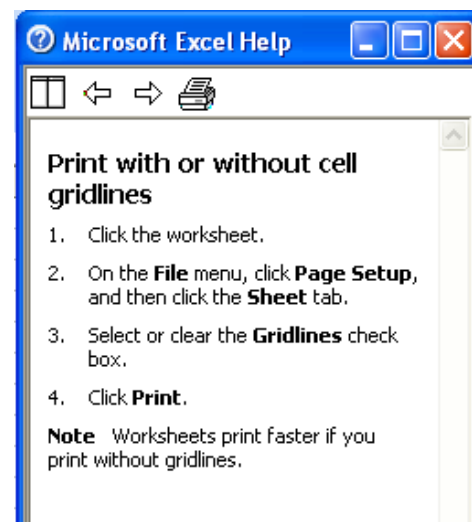
Perhaps you want information about printing worksheets. You might type this:



Once you press the Enter key or the green arrow , this **Search Results** window will be produced. Scan the results in blue text. These are the hyperlinks. Use the scrollbar on the right side to see all the search results. Click on any link that describes a task that you would like to know how to perform.

**Example continued:**

Let us say you really want to know how to print your sheet with a border or gridlines. Scan the hyperlinks and you will notice **Print with or without cell gridlines**. You will then get the following directions on how to do it.



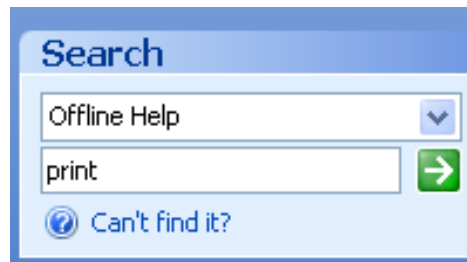
The great thing about the *Help* function is that you can read the directions and try it on your worksheet at the same time.

Once you are finished with that specific help, click on the



in the upper right corner of the help box to close.

You can then click on a different hyperlink. If you want to do a new search, use the search box at the bottom of the Help box.



When you are completely finished with the Help function, click on the



in the upper right corner of the Help box, to close the box. You can then continue working on your worksheet.




CHECK YOUR PROGRESS 4

USE THE HELP FUNCTION

1. What is the purpose of the Help function?

2. Which one of the following is NOT a way to access the Help function:

- a). Click on  . _____
- b). Use the **Tools** menu in the menu bar. _____
- c). Press F1. _____
- d). Use the **Help** menu in the menu bar. _____



PRACTICAL ACTIVITY 4

USE THE HELP FUNCTION

1. Open 'Spreadsheet Activity 1'.
2. Access the Help function.
3. Search for 'currency'.
4. Find the hyperlink for '**Add or remove currency symbol**'.
5. How would you add the default currency symbol?
6. Add currency symbol to your figures.
7. Close your programme with changes saved.

Summary

Well done! You have completed Section 4 on *Use the Help function*.

You should now be confident that you have the knowledge and skills to use the Help function on your computer when you are producing a basic spreadsheet.

If you feel confident that you have achieved the above, you can move on to the next section where you will learn how to print a basic spreadsheet'.

If you are unsure about anything, go back and revise or ask your instructor or supervisor for assistance.

Section

5

Print a basic spreadsheet document

Introduction

In this section of the training manual you will learn the procedures to print a basic spreadsheet document.

You will also learn the different printing features, such as the page setup, number of copies, page range and the printing properties .

You will be taught how to preview your document before you print to make sure that the layout is to your liking. As such, you will also learn how to set the page orientation, send the document to different printers and modify page margins before printing

Skills you will learn

By the end of this section, you will be able to:

- describe the different printing features
- describe the procedures for printing a basic spreadsheet
- apply the procedures for printing a basic spreadsheet.

Purpose of printing features

Printing a worksheet or an entire workbook is one of the main functions of a spreadsheet. This is the most common way to distribute a finished worksheet or workbook. The ability to print your work makes spreadsheet efficient and useful for professional and personal use.

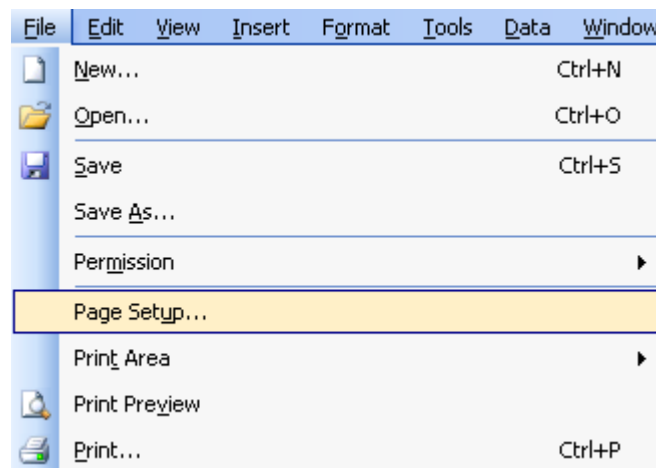
Because this is such a crucial function, there are several printing features that a spreadsheet offers to users.

Before you print

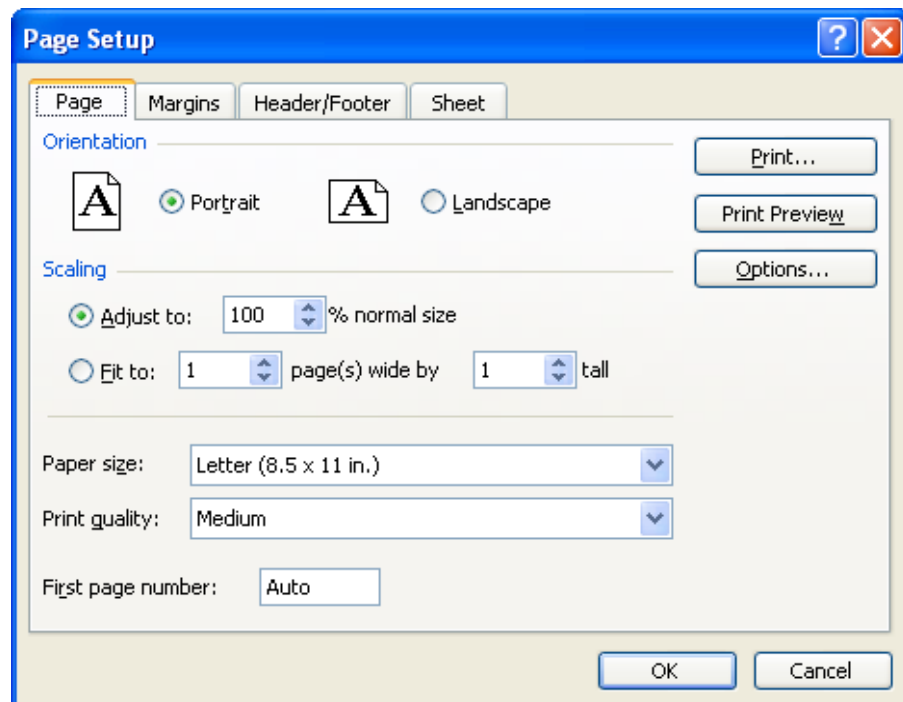
There are two things you will want to do before printing your spreadsheet.

Page Setup

The first thing to do before printing is to go to Page Setup. Page Setup will let you change and set numerous features your worksheet and/or workbook. To access Page Setup, click on **File** menu and find **Page Setup**. If you do not see *Page Setup* immediately, click on the chevron to see the entire File menu.





This pop-up window will appear.



There are three tabs at the top of this window: **Page**, **Margins**, **Header/Footer** and **Sheet**. Each tab give allows you to modify various features of your workbook or sheet that will affect the way it looks when printed.

The first tab in this dialog box is **Page**.

Orientation: This refers to how your document lies on the page –

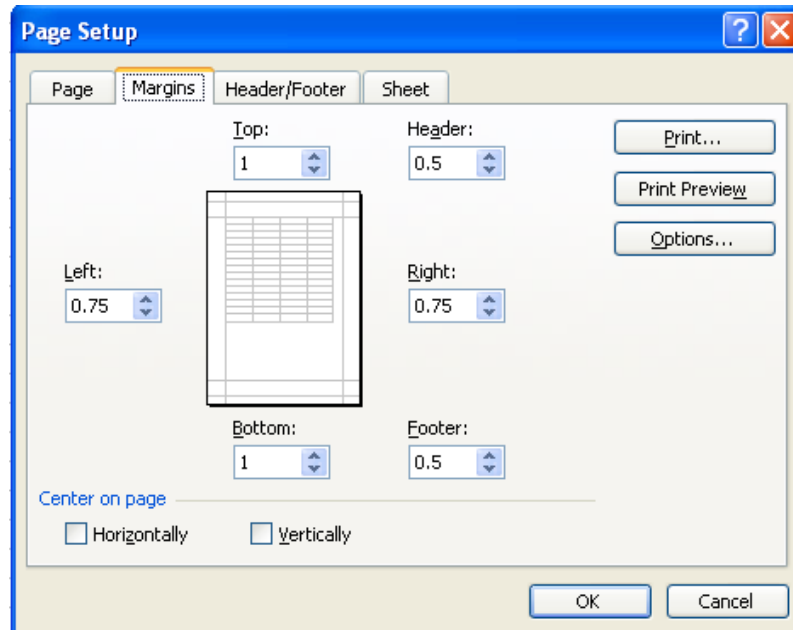
vertical (Portrait ) or horizontal (Landscape .

Click on the one you want. Often worksheets are printed in **Landscape** to fit more cells on one page.

Scaling: This portion of the box allows you to adjust the scale at which you want your worksheet(s) to be printed. For example, you can choose your sheet to be printed at 50% the original size. You can also force the entire work to be printed in one or any number of pages by choosing the **Fit** option. For instance, if you choose two pages wide by two pages tall, the maximum number of pages that your work will be printed on is four.

Paper Size: In Namibia, we use A4 paper. In other places, people use paper which is called “letter”. It is very important that you set your computer to the correct paper size **before** you start to print.

Now click on the **Margins** tab and you will see this

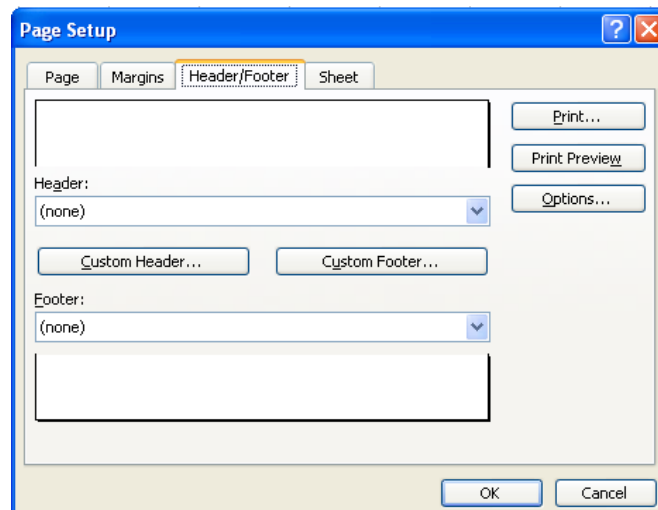


Margins refer to the blank spaces to the left and right sides and the top and bottom of a sheet when it is printed. The size of the margin can be increased or decreased. Sometimes you may need to play around with the margins to ensure that your printed results are properly centered.

At the bottom of the box where it says **Centre on page**, you can select to center your sheet **Horizontally** or **Vertically**. Simply click in one or both boxes to do so.

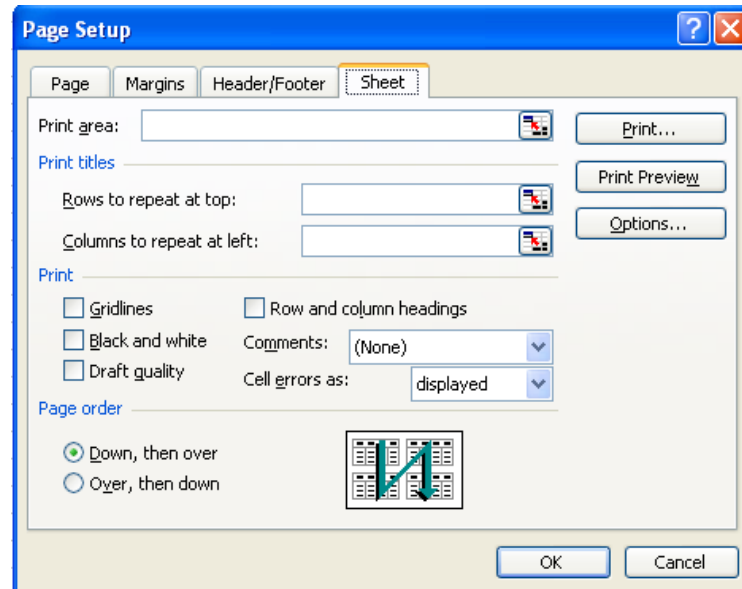
Now click on the **Headers/Footers** tab.

If you think of your printed page as a human body, then the terms **header** and **footer** make perfect sense. The **header** is one or more lines of text that appear at the top of every page printed in a workbook. The **footer** consists of one or more lines of text that appear at the bottom of every page printed in a workbook.



Click on the down arrow for a header or footer and choose any one of the options available. Here you can add page numbers, name of your workbook and other information. You can also create your own custom header or footer by clicking on **Custom Header** or **Custom Footer** and following the instructions.

Lastly, click on the **Sheet** tab.



This tab allows you to specify other features on actual sheets to be printed. For instance, **Print area** allows you to choose a specific area of the sheet to be printed (instead of the entire sheet). **Print titles** allow you to choose specific rows or columns that can be printed at every page.

Under the **Print** section of the dialog box, you can select any of the options by clicking in the box next to the title. Selecting **Gridlines** will print the worksheet with the gridlines of the entire worksheet. Selecting **Row and column headings** will print your sheet with these headings on the left and top accordingly.

For now, do not worry about other features in these different tabs. However, if you are curious about them, you can always use the **Help** function to learn more about each feature, what it does and how to use it.

To close this window, no matter which tab you are on, click **OK**. If you do not want to save changes made to features in this **Page Setup** dialog box, you can click **Cancel**.

Procedures to apply printing features

With a spreadsheet you do not always print the whole spreadsheet as you would in a word processor, for instance. You will quite often first select a part of a workbook and then choose to print that selected part. Furthermore, since a spreadsheet's workbook is an electronic sheet which is much bigger than an A4 piece of paper (as found in a printer), it is always advisable to first preview your print result **before** choosing to print the selection.

In *Page Setup* you will notice a button to the right side that says **Print Preview**.

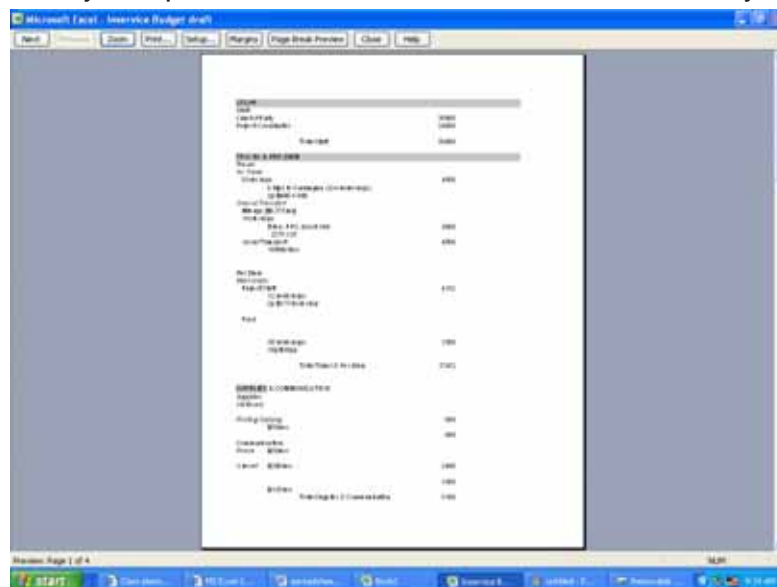
Print Preview

You can select **Print Preview** here, or you can access it two other ways.

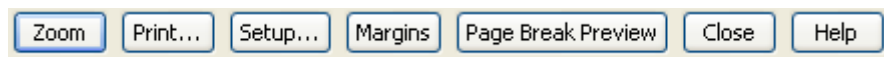
You go to File menu and click **Print Preview** or click the corresponding button on the Standard toolbar .



Which ever way you access the **Print Preview** you will get a smaller view of your spreadsheet to see what it will look like when you print it.



If the selected text appears on the preview screen and you are satisfied with the previewed result, click on the **Print** button **Print...** on the toolbar on top





However, sometimes extra columns you have entered data on do not appear on the page. There are several options for changing the page before printing:

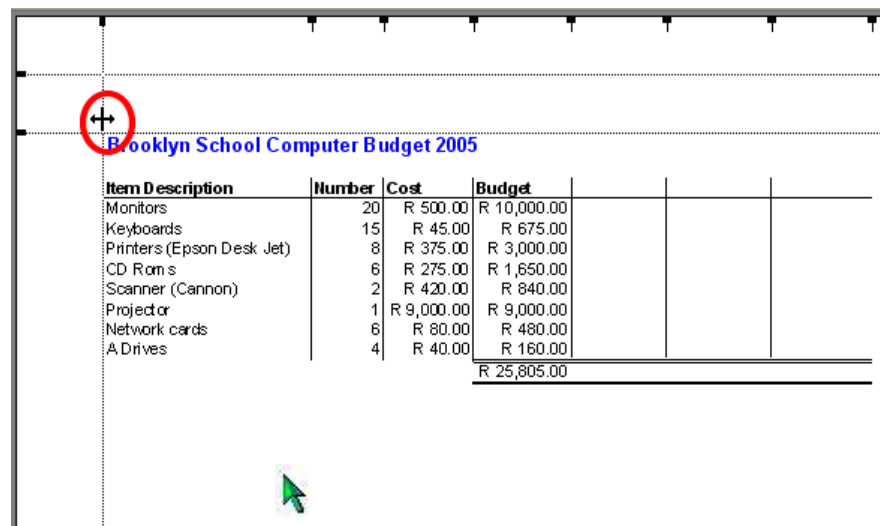
- change the margins
- change the page orientation (portrait to landscape)
- reduce the column widths
- decrease the font size of data

To change the margin widths:

On the **Print Preview** page, click on the **Margins** button

Margins

and move the mouse pointer  to the dotted lines representing the margins that you want to change. A double arrow  appears (circled in the image below). Press the left mouse button and keep it down. Drag the margin to the width you want.



The screenshot shows a spreadsheet titled "Brooklyn School Computer Budget 2005". A red circle highlights a double-headed arrow icon on a vertical dotted line representing a margin. The spreadsheet data is as follows:

Item Description	Number	Cost	Budget			
Monitors	20	R 500.00	R 10,000.00			
Keyboards	15	R 45.00	R 675.00			
Printers (Epson Desk Jet)	8	R 375.00	R 3,000.00			
CD Rom s	6	R 275.00	R 1,650.00			
Scanner (Cannon)	2	R 420.00	R 840.00			
Projector	1	R 9,000.00	R 9,000.00			
Network cards	6	R 80.00	R 480.00			
A Drives	4	R 40.00	R 160.00			
			R 25,805.00			

To change the page orientation:

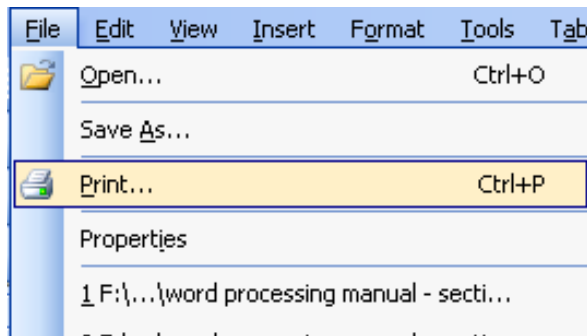
Click on the **Setup** button

Setup...

or choose **Page Setup** from the **File** menu.

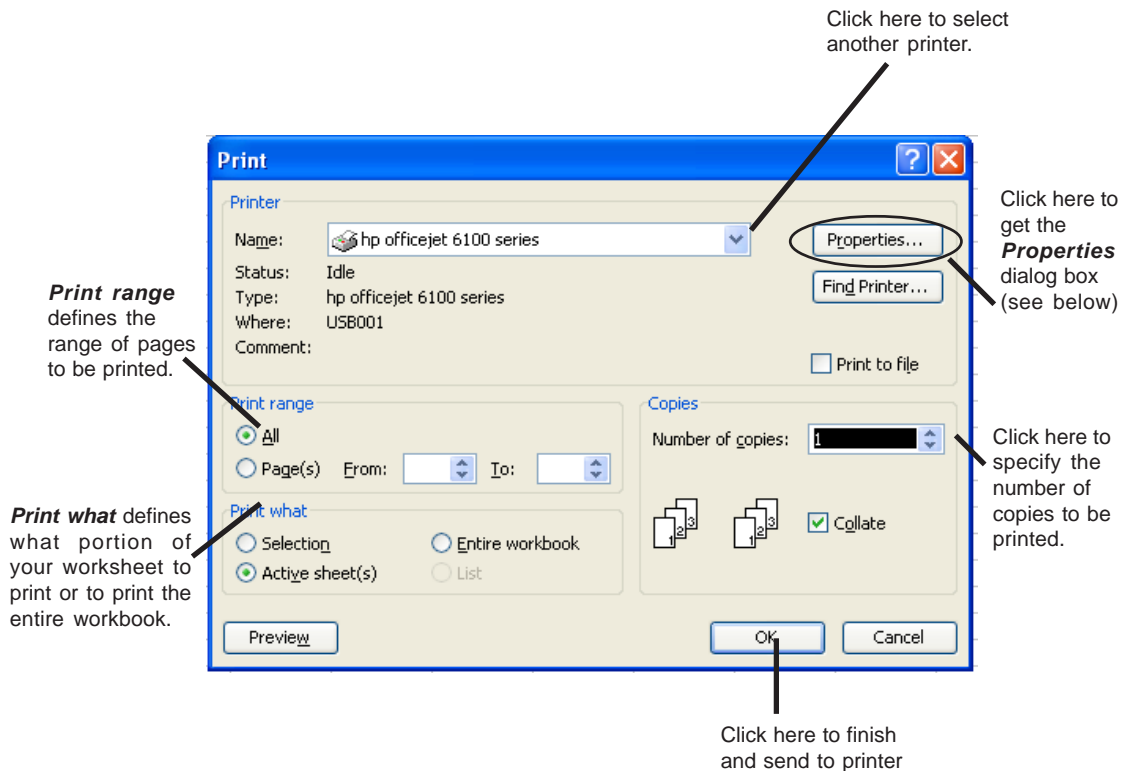
There are other ways to print a spreadsheet than through **Print Preview**.

1. Use the **File** menu and click on **Print**.



2. Press **Ctrl+P**.

Either way will bring up this pop-up window





Properties

There are tabs, similar to the **Page Setup** dialog box, in the **Properties** dialog box. Click through the tabs to see the features that can be set or changed. Many are similar to those found in other places.

You can either set/change them here or just ensure features are set to you preferences.

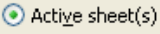
To close the **Properties** dialog box, click on **OK** to save changes made or **Cancel** to disregard changes.

Print Range


The spreadsheet will assume you want to print all pages  in the worksheet, unless you specify otherwise. You see exactly what each print page will look like by clicking on **Preview**  (same as **Print Preview**). If you only want to print a certain range of pages, enter these numbers in the spaces provided

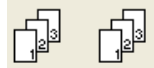
Page(s) From: To:

Print What

As the spreadsheet assumes you only want to print the active sheet , and you want all sheets in the workbook printed, you must select this option Entire workbook. Click in the circle to select. In addition, you can also print just a portion of a sheet. You must highlight the desired portion in your worksheet area then click **Selection** when printing Selection.

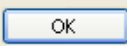
Copies

You can either type in the number of copies you want or use the arrows  to increase/decrease number of copies. The **Collate** box Collate also indicates that if you print more than one copy, the copies will be printed as a set each time. For instance, if you are printing four copies of three pages, (Pages 1, 2 and 3), these will print in that order four times.




If you 'uncheck' the **Collate** box, Page 1 will print four times, then Page 2 will print four times, and then Page 3 will print four times.



Press **OK**  when you have set all the print features to your liking. This will send the worksheet or workbook to the printer.

Press **Cancel**  if you decide not to print.

There is one more way to print your spreadsheet, but not recommended. You could use corresponding button on the Standard toolbar .

However, remember that this will automatically send the all pages of the entire active worksheet to your default printer. The default printer is the printer selected for all printing (unless otherwise told by changing the printer **Name**). If this is not the printer you want to send the printing job to, you must use one of the other ways to print and select another printer.



CHECK YOUR PROGRESS 5

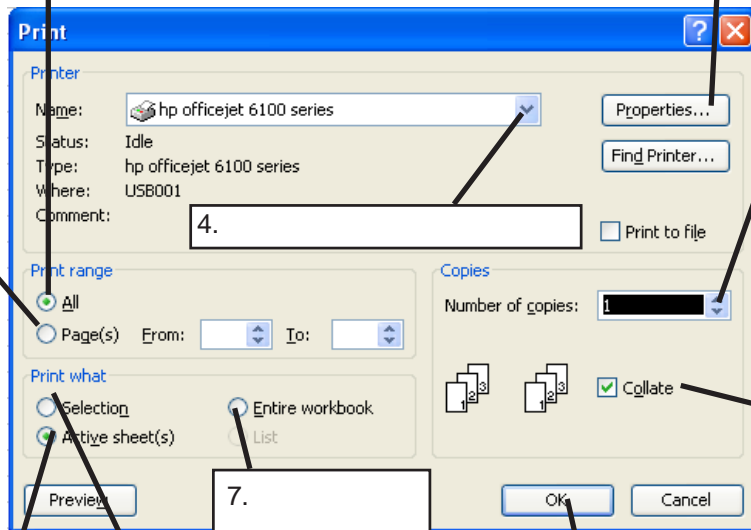
PRINT A BASIC SPREADSHEET DOCUMENT

1. Label what each of these features does:

1.

2.

5.



3.

6.

7.

8.

9.

10.



CHECK YOUR PROGRESS 5

2. Multiple choice (Tick the correct answer)


1. How would you set the page orientation?

- (a) change the margins
- (b) scale pages to fit
- (c) go to page setup
- (d) choose a different printer

2. What is a header?

- (a) one or more lines of text that appear at the bottom of every printed workbook page
- (b) the top of your workbook
- (c) where the name of your workbook appears
- (d) one or more lines of text that appear at the top of every printed workbook page

3. Which one is NOT a way to print a workbook?

- (a) Click on this button 
- (b) Ctrl + P
- (c) click print from File menu
- (d) Click print when in Page Setup

4. What option would you NOT consider using to have more columns appear on a printout?

- (a) change the page orientation
- (b) increase the font size
- (c) reduce the column widths
- (d) change the margins



PRACTICAL ACTIVITY 5

PRINT A BASIC SPREADSHEET DOCUMENT

1. Open 'Spreadsheet Activity 1'.
2. Change the page orientation to Landscape.
3. Insert gridlines to this selection.
4. Print the entire workbook sheet with data on them. How many pages is this?
5. Get your printout.

Summary

Well done! You have completed Section 5 on *Produce basic spreadsheets*.

You should now be confident that you have the knowledge and skills to produce, format, edit and print a basic spreadsheet document.

If you feel confident that you have achieved all of the above, congratulations - you have successfully completed the module *Produce basic spreadsheets*.

If you are unsure about anything, go back and revise or ask your instructor or supervisor for assistance.

List of figures

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Figure 1 : Microsoft Excel closing down window	26
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Glossary

Active sheet	:	The worksheet that is white and appears to be 'on top'. If a worksheet is active, you can enter data, make changes, etc.
Alignment	:	Alignment is the way lines of text are arranged relative to the edges of a block of text.
Cell	:	The intersection of a column and a row.
Cell reference	:	The name of the column heading and the name of the row heading of the cell, e.g. C5.
Click	:	Refers to pressing either of the buttons on a mouse
Column heading	:	The letters along the top of the worksheet.
Cursor	:	A symbol on the screen that indicates the active position or insertion point (see below). The cursor can change its shape considerably depending on where it is standing; for instance, pointer versus vertical blinking line.
Enter key	:	A large key which is located at towards the right centre of the keyboard. It usually has a little arrow ↵ on it. Pressing this key moves the cursor to the next line.
Format	:	The act of changing the properties of text or other objects, such as colour, size and position. The format can also refer to the layout of a spreadsheet. The format determines how the spreadsheet will appear on the screen and how it will look when printed.
Formula bar	:	To the right of the name box, where text and formulas are entered and edited for each cell.
Highlight	:	The change of colour or shade when text is selected.
Hypertext	:	Generally, any text that contains links to other documents usually it is a word or phrase in the document that can be chosen or clicked on by a reader and which cause another document to be retrieved and displayed.

Icon	:	Small images which can represent functions or commands, and which are typically used as buttons which activate the given command
Insertion point	:	This is a screen cursor which shows you where your text will be inserted when you type.
Margins	:	Margins are the blank space to the left and right sides and at the top and bottom of a page.
Menu	:	Most software programs feature menus (typically at the top of the screen), which offer a wide range of actions and operations available to the user, such as Save, Edit, Print etc
Name box	:	A white box in the upper left corner where the selected cells reference appears.
Row heading	:	The number along the left of the worksheet.
Select	:	The mouse can be used to choose a large range of items for further work, including single letters or words, one or multiple cells, columns or rows.
Selected cell	:	Indicates the cell that data will be entered in. Outlined by a thick, black rectangle.
Space bar	:	Long key at the bottom of the keyboard. If pressed, it enters an empty space “ ”.
Spreadsheet	:	A programme that organizes and keeps track of data and is generally used for numeric calculations.
Workbook	:	Name of a spreadsheet file.
Worksheet	:	One grid of rows and columns in a workbook to enter and analyse data. There are by default three worksheets in one workbook.
Tab	:	Tab is a key on the keyboard that moves the cursor to the right a prescribed number of spaces. The number of spaces depends on the tab stops which can be set by the user. Tab allows the user to move to cursor to the next cell.

Toolbar : Most software applications feature a series of words and icons (typically at the top of the screen) which show and provide shortcuts to commonly-used functions which are available to the user.



Write down additional words that you do not understand.
Ask your instructor to explain the meaning of those words.

Answers to check your progress

Check your progress 1

1 Advantages (any three):

- Saves time! The spreadsheet instantaneously performs mathematical calculations when set up. No more double and triple-checking calculations with a calculator.
- It is easy to change the data and get new results. The spreadsheet instantly recalculates the equation for you when you enter new numbers
- It is easy to make graphical representations of your data. In addition, you can present this information in different ways and easily manipulate from the data entered into the spreadsheet.
- Allows for flexible presentation. You can alter column widths and row heights, and easily delete or add cells, columns and rows. You can also control the types of numbers you enter – for example, you can choose percentages, currency or set the number of decimal places.

2. Disadvantages (any three):

- Formulas can be tricky. Users must be very careful when they enter equations or use formula to ensure that the spreadsheet is calculating the intended numbers and correctly.
- It is not as text-friendly as word processing. Text can be entered (and lists even sorted alphabetically), but it is not good for entering lengthy text, like a letter.
- The worksheet can become awkward. As more and more data is entered, the worksheet expands off screen so that not all data can be viewed at once. This can cause beginners problems with finding information and navigating around their worksheet.
- Unless you have your own computer or 24-hour access to one, you will only be able to work at limited times when you get access. This could also cost money if you are using, for example, an Internet café
- You will have to take time to learn how to use the spreadsheet. For instance, sorting and filtering data are useful functions, but they take time to learn and perfect.
- The storage device on which you save your work can be lost, damaged or stolen.
- Printing will require a printer

3. Identifying alignment:

	A
1.	1. How is this cell aligned?
	2.
2.	2. How is this cell aligned?
	4.
3.	3. How is this cell aligned?
	6.

1. Cell one is aligned centre
2. Cell 2 is left aligned
3. Cell 3 is right aligned
4. Another name for Redo is:

Undo undo. It can be called this because *Redo* reverses what was just done by *Undo*. Therefore, it is 'undoing' the function of Undo.

Check Your Progress 3

1. $C3 \text{ plus } C4 \text{ minus } C5 = C3+C4-C5$
2. $C4 \text{ divided by } G4 = C4/G4$
3. $\text{Is } H1 \text{ less than } H2? = H1 < H2$
4. $\text{The sum of } D6 \text{ and } D7 \text{ multiplied by } E8 = (D6+D7)*E8$
5. $\text{Is } F4 \text{ greater than or equal to } J6? = F4 \geq J6$
6. $\text{Is } F4 \text{ equal to } F6? = F4 = F6$
7. $\text{The product of } G5 \text{ and } G6 \text{ divided by } G7 = (I5*I6)/I7$

Check Your Progress 4

1. The purpose of the Help function is to provide a quick way to find out how to perform a particular task. If you are uncertain how to do something in spreadsheet, the Help function is there to guide you, step-by-step, on how to perform that task.
2. Using the **Tools** menu in the menu bar is not a way to access the Help function.

Check Your Progress 5

1.1 The features of print:

1. Prints all pages in a worksheet
2. Will bring up the **Properties** dialog box
3. Increases or decrease the number of copies
4. Allows to change printer
5. Prints a range of pages in a worksheet
6. Collates pages if checked; if unchecked, will not
7. Prints the entire workbook
8. Send the worksheet/workbook to the printer
9. Prints a selection highlighted by user
10. Prints only the active worksheet

Question 2:

- 1 To set the page orientation: (c) - go to page setup.
2. A header is (d) - one or more lines of text that appear at the top of every printed workbook page
3. (a) is not a way to print a workbook.
4. (b) is an option not to consider using to have more columns appear on a printout.