UNDERSTANDING PRINTING

Printing, in its simplest form, means producing a paper copy of what you have created on the computer screen. Early forms of printing required typesetting, printing presses and ink. These days

printing only requires a printer which converts the electronic version into letters and other graphics on a page. Before you commit to printing to paper, there are a few things to consider.

Resisting The Urge To Print

These days printers are very cheap, easy to install and easy to use. While computers were supposed to reduce the amount of paper and introduce a paperless age, in reality they have made it easy to go through pages and pages of paper while we review and modify the data. If you take some time to think the following things through, you may well reduce the volume of paper that you go through.

Draft Versus Final

The first thing to consider is **why** you are printing. If you just want to review the layout and proof the numbers, there is a good case for printing only a **draft** copy of the data. This uses less ink and in some cases prints more quickly than a best-quality copy. If you have a colour printer, then you can often choose to print in greyscale, saving the more expensive colour ink for later. If it's the **final** copy that you want to print, then you should make sure you've previewed the output so that you don't waste precious ink, time, paper and patience.

When Printing Isn't Printing

Traditionally, printing referred to creating a *hard copy* of the data, meaning a copy of the data on paper. These days, printing can also be used to create an electronic version of the data, known as a *soft copy*. For example, you can print to the *Microsoft XPS Document Writer* and create an *XPS* version of the file, or use the *Export* features to create a *PDF* (*portable document file*) version of the workbook.

Knowing What To Print

Before attempting to print from Excel you need to be aware and understand exactly what you are printing. Do you want to print only a part (a *range*) of the worksheet, perhaps the entire worksheet, or maybe all of the worksheets in a workbook? As a default Excel assumes that you wish to print everything in the current (known as *active*) worksheet and that's what you'll get if you choose the simplest and easiest way to print in Excel.

Knowing Where To Print

Even though it may appear like it, printing is not handled by Excel, but rather through the operating system of your computer. With the operating system you *install* printers on your computer – these printers may be sitting on the table next to your computer, or may even be a fair distance away in another room or on another floor and connected via your network. Once a printer has been installed on your computer it will become available for printing your Excel data. One of the installed printers on your computer will be set up as the *default printer*. The *default* printer is the printer that appears in the *Print* dialog box when you access the printing operation. It's the printer that will be used unless you select another one.

Knowing When To Print

When you tell Excel to print it must somehow convert what appears on a screen in columns and rows into a logical, legible equivalent on paper. Naturally, if your data spans across dozens of columns it won't print easily on one sheet of A4 paper. As a consequence there will be breaks in the printing as it spans across several pieces of paper – and these breaks may not necessarily occur where you want them. So before you print anything on paper it is a good idea to use *Print Preview* to see on the screen exactly how the data will print before you send it to the printer. *Print Preview* provides a way of seeing how the data will look when it's printed without actually printing it. You should always check *Print Preview* before sending any data to a printer.

PREVIEWING BEFORE YOU PRINT

You would hope that what you see on your screen is what you get when you print out on paper – and generally this is the case. But what happens if you have a large number of rows, or

many columns, or wide columns? How will Excel render this to paper? If you are not sure how your worksheet data will print it is a good idea to **preview** the print data on the screen first.

Try This Yourself:

- Before starting this exercise you MUST open the file Printing_1.xlsx...
- Click on the *File* tab to display the *Backstage* view, then click on *Print*

The Print options are displayed on the left and Print Preview on the right. Print Preview shows you how the worksheet data will appear when printed on paper...

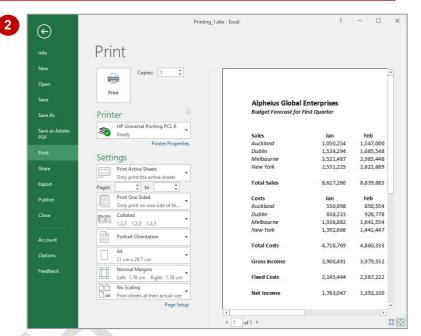
2 Click on the **Zoom to Page** tool at the bottomright to zoom in

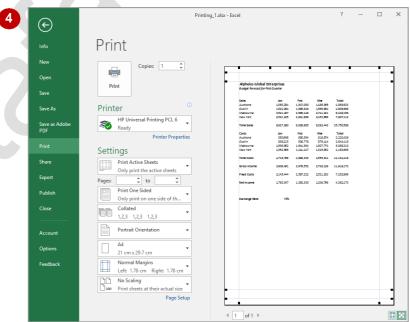
You can use the scroll bars if necessary to move around the page when zoomed in. Clicking on the Zoom to Page tool will zoom in and out...

- 3 Click on the **Zoom to Page** tool to zoom out
- Click on the **Show Margins** tool next to the **Zoom to Page** tool to see
 grey lines representing the
 page margins

We won't actually print at this point so let's exit out...

5 Click on the *Back* arrow to close the preview and return to the worksheet





For Your Reference...

To *preview* before *printing*:

- 1. Click on the File tab
- Click on *Print* to see a preview of your worksheet

Handy to Know...

 After you have previewed or printed you may notice dotted lines in your worksheet – these lines are page boundaries that indicate where pages will break.

SELECTING A PRINTER

When you perform any printing operation Excel must be told which printer to use. Unless you specify otherwise Excel will use the Windows **default printer** or the last printer you specified

while working in the current session of Excel. Should you wish to use a different printer you can do so using the *Printer* drop list which allows you to choose from any printer installed in Windows.

Try This Yourself:

- Continue using the previous file with this exercise, or open the file Printing_1.xlsx...
- Click on the *File* tab to open the *Backstage* view, then click on *Print*
- Click on the drop arrow under **Printer** to see a list of available printers

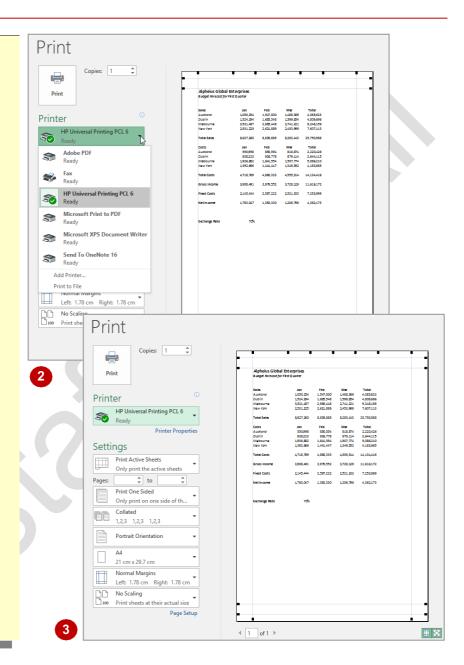
Select the name of the

printer that you wish to use, or click on the drop arrow under **Printer** again to close the list Ensure that the printer you have chosen is

you have chosen is turned on, connected and ready to use – it will say Ready underneath the printer when this is the case.

You could print at this point, or return to your workbook, but we will continue the next exercise from here...

4 Click on the *Back* arrow to close the preview and return to the worksheet



For Your Reference...

To **select** a **specific printer**.

- 1. Click on the File tab, then click on Print
- 2. Click on the drop arrow under **Printer** and select the desired printer

Handy to Know...

 The list of printers on your computer will differ from the one shown above. The list of printers will show all printers installed for use on your computer and could include the printer on your desk as well as the one connected via the network two floors below where you currently are.

PRINTING A RANGE

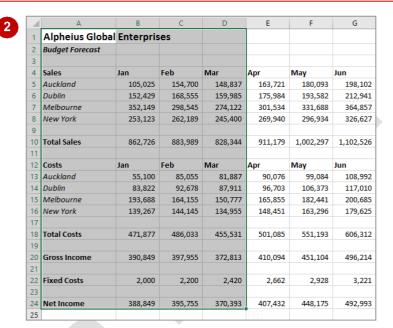
Unless you specify otherwise, Excel assumes that you wish to print everything that is currently in the active worksheet when you choose one of the print commands. You can elect to print only a

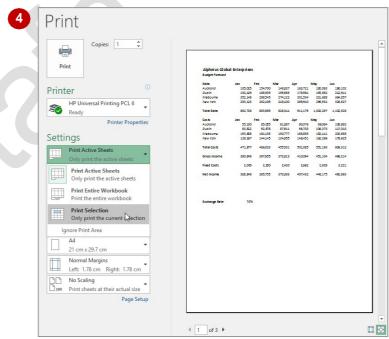
specified range in the worksheet by selecting the range prior to accessing the print commands and then working through the options in the **Print** tab of the **Backstage** view.

Try This Yourself:

- Continue using the previous file with this exercise, or open the file Printing_1.xlsx...
- Click on the *Medium*worksheet tab to see a
 slightly larger worksheet
- Click in cell A1, hold down shift, then click in cell D24 to select the range A1:D24
- Click on the *File* tab to display the *Backstage* view, then click on *Print*All of the worksheet cells appear in the preview, indicating that all of the data on the worksheet will print...
- 4 Click on *Print Active*Sheets in Settings, then select Print Selection
 Now the preview shows only the selected range of cells. You will need to ensure that the printer is online and ready to
- 5 Click on [Print] to print the range

use...





For Your Reference...

To print a specific range:

- 1. Select the range to print
- 2. Click on the File tab, then click on Print
- 3. Ensure that **Print Selection** is selected in **Settings**
- 4. Click on [Print]

Handy to Know...

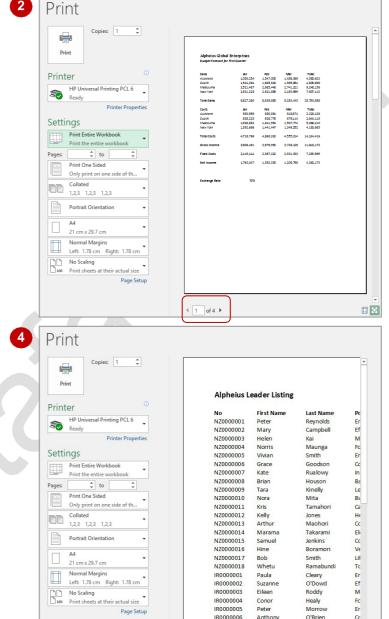
 When you use the Print Selection option in Print, anything currently selected in the workbook will be printed. You can therefore select multiple ranges and have them printed to produce more complex print jobs.

PRINTING AN ENTIRE WORKBOOK

Unless you specify otherwise, Excel assumes that you want to print all of the data in the current or active worksheet. You can also elect to print all of the worksheets in the workbook. This is handy

particularly if your workbook is made up of a multiple number of smaller worksheets. *Printing an entire workbook* is controlled from the *Print* tab in the *Backstage* view.

Try This Yourself: Before starting this exercise you MUST open the file Printing 2.xlsx... Click on the File tab to display the Backstage view, then select Print Click on the first option below **Settings**, then select Print **Entire** Workbook This can be a paperwasting activity so it is a good idea to preview the pages first. Notice that the status bar shows page 1 of 4... Click several times on Next Page in Preview to see the other pages Click on the Zoom to 4 Page tool on the bottomright several times to zoom in and out You could print now if you were satisfied with the preview of the data, but we'll conserve paper...



For Your Reference...

To **print** the **entire workbook**:

1. Click on the File tab, then select Print

Click on the Back arrow

to return to the worksheet

- 2. In the first option below **Settings**, select **Print Entire Workbook**
- 3. Click on [Print]

Handy to Know...

 When you choose to print the entire workbook, all of the worksheets that contain data will be printed. If there is an empty worksheet in the workbook it will not be printed.

SPECIFYING THE NUMBER OF COPIES

If you need multiple copies of a report (for example), there is no need to print a copy from Excel and then rush down to the photocopier to make five more copies. Whenever you print from

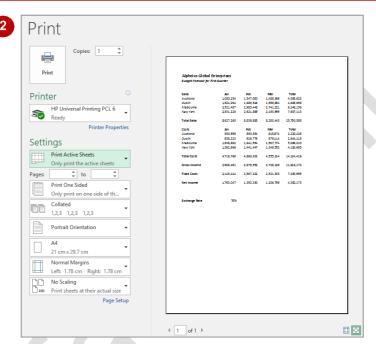
Excel, the **Print** screen provides you with the opportunity of specifying how many copies you want to print.

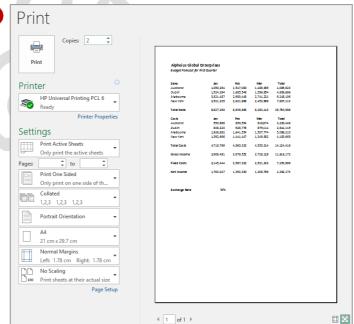
Try This Yourself:

- Continue using the previous file with this exercise, or open the file Printing_2.xlsx...
- Click on the *File* tab to display the *Backstage* view, then select **Print**

Ensure that your printer is online and ready to print...

- Click on the first option under Settings, then select Print Active Sheets
- Click in *Copies* in *Print* to select the value, then type 2
- 4 Click on [Print] to print two copies of the worksheet





For Your Reference...

To print multiple copies:

- 1. Click on the File tab, then select Print
- 2. Type how many copies you want in *Copies* and click on **[Print]**

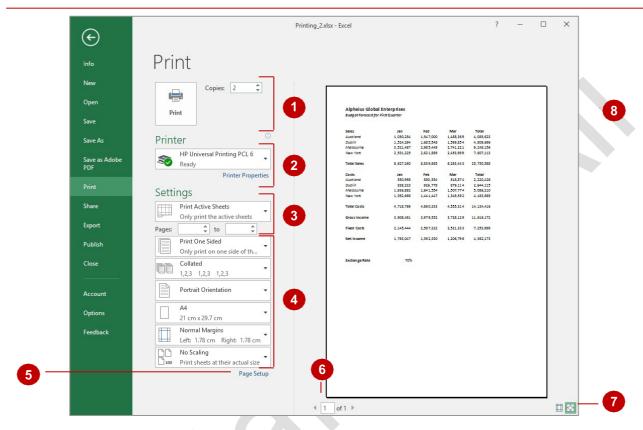
Handy to Know...

 The up and down arrows in the Copies option are known as spinners. Each time you click on them Excel enters the next sequential number into the box for you.

THE PRINT OPTIONS

There are many settings that you can use when printing to get the exact output that you need. You can print the worksheet or special features of the worksheet. You can print to a printer or to a

file. You can print multiple pages per sheet or scale a page to fit a particular paper size. This page examines the controls in the **Print** area of the **Backstage** view.



- Copies & Print button
- Allows you to specify how many copies of the data you want printed. Once you have set all the options (below), click on the **Print** button to print.
- Printer & Printer Properties
- Allows you to select from a list of installed printers and provides information about the current printer. **Printer Properties** gives access to the printer-specific properties, usually including printing quality, paper type selection (e.g. matt versus glossy) and maintenance.
- Print what Page range
- Enables you to specify what part of the workbook to print. The default is the active worksheet, however, you can change this to be a range from the workbook, or the entire workbook. *Pages* allows you to specify exactly which pages of the report to print. Excel converts your column and row layout to fit on pages of paper this feature allows you to specify which of those pages to print.
- Other print Settings
- **Collated** specifies the order in which the pages of a multi-page printout are printed (i.e. all of the page 1's, then the page 2's and so on, or print all of the pages for the first copy, then all of the pages again for the second copy, and so on). **Orientation** selects the direction the page will be printed on. **Page Size** enables you to select the page dimensions. **Margins** enables you to set the non-printable area. **Scaling** enables you to shrink the data to fit in a specified area (e.g. Fit Sheet on One Page).
- Page Setup
- Displays the *Page Setup* dialog box, enabling you to refine the options for the page even further
- Page
 Navigation
 tools
- Use the arrows to navigate through the pages in a multi-page printout, thereby previewing each page before printing. You can also type a specific page number to display that page directly.
- 7 Margins & Zoom tools
- Enables you to display margins in the preview and to zoom in and out of the page.
- Print Preview
- Print Preview allows you to preview your data on the screen, based on the settings specified.

STRATEGIES FOR PRINTING WORKSHEETS

Unfortunately not all spreadsheets fit neatly into A4 segments. Given that they may extend down the page a long way because of thousands of records, or far across the page because of the

number of columns you have used, you will probably need to tweak the settings a little to print larger worksheets. Here's a list of the techniques that you can use to make the job easier.

Adjusting Columns Widths

The first method you may use to reduce the width of a worksheet is to adjust the *column widths*. While other methods might be quicker, adjusting the column widths has the added advantage of allowing you to match the width of the columns to the data in the columns. You can auto-size them by selecting all of the column headers and double-clicking on the right border of one of the column headers. Alternatively you can select the column headers and drag one border to the required width to resize all, or resize each one manually.

Margins

If you only need a small amount of extra width or length to fit your data on a page, you can adjust the margins. This is the amount of white space between the edge of the paper and the printed part of your spreadsheet. **Page Layout** view is best for making this type of adjustment because you can drag margins to new widths and see the result immediately. Alternatively you can select the pre-set **Narrow** margin settings under **Margins** in the **Page Setup** group on the **Page Layout** tab.

Orientation

If you have a reasonably small number of rows but lots of columns, changing the page orientation to **Landscape** might fix your sizing problems and allow you to fit the data on one page. The same applies when you have lots of rows and columns – generally it makes more sense to have more columns for each row than it does to have lots of rows. Experiment a bit and decide on what works best with your particular worksheet.

Scaling

Another option for printing larger worksheets is to scale the worksheet down so that it fits exactly into the required number of pages. The only disadvantage with this is that it's possible scale it down too far and make it illegible. You can also scale to a specific percentage.

Page Breaks

Excel automatically creates page breaks according to the printer, paper size and margins. You can override automatic page breaks by creating your own and placing them in more logical positions such as at the end of a department or section.

Paper Size

If you have printers with the capacity, you can change the paper size to A3 or larger so that you can fit more data on the page without losing readability.

Print Areas

You can print parts of a larger worksheet by setting a print area. A print area is delineated by a dashed line and the range name *Print_Area* is assigned so that you can select and locate it easily.

Readability

You can improve the readability of larger worksheets using several methods. You can repeat rows and/or columns on each page using *Print Titles*, print the worksheet using *Gridlines* so that you can read an entire row and/or add *Headers and Footers*. Adding page numbering will also allow you to you organise the pages more easily.

Page Layout vs. Print Preview

Page Layout view is useful for visualising the margins and general layout, but be sure to make a final check using the preview available in the **Print** area of the **Backstage**.

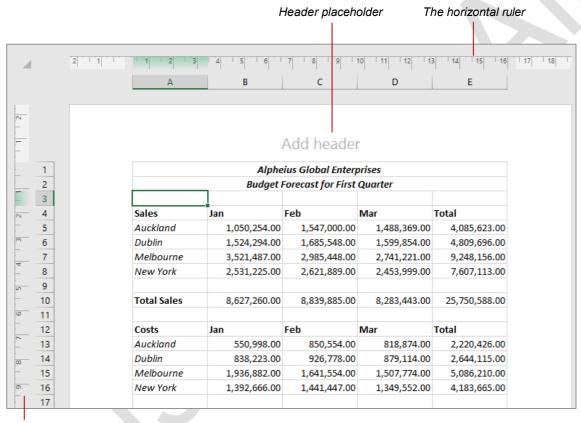
UNDERSTANDING PAGE LAYOUT

In Microsoft Excel, there are several ways you can alter and edit the layout of your worksheet. To begin, it is advisable to view your worksheet in *Page Layout* view as this shows the margins and

ruler as well as how the worksheet will appear when printed. You can then use the *Page Layout* tab to alter the layout of your pages.

Page Layout View

In **Page Layout** view the horizontal and vertical rulers are displayed making it easy to measure the width and height of the data. It is also easier to see the difference between the individual margin settings and page scaling options than when the document is in other views. It is the ideal view to use when you want to see what your document will look like when printed, while still being able to edit the document.



The vertical ruler

The Page Layout Tab

Using the *Page Layout* tab, you can alter the way your worksheet appears when printed. You can specify options such as which area is to be printed, whether you want the gridlines or headings to print and what size paper you would like to print the worksheet on and much more.



USING BUILT-IN MARGINS

All spreadsheets come with the default settings of 1.78cm for left and right margins and 1.91cm for top and bottom margins. These settings are known as **Normal** and, while they are suitable for

most spreadsheets, there may be some situations where you want more or less space in the margins. To make it easier for you, Excel provides alternative pre-set margins of *Narrow* and *Wide*.

Try This Yourself:

Before starting this exercise you MUST open the file Page Setup_1.xlsx...

Ensure the Small worksheet tab is selected, click on the View tab, then click on Page Layout in the Workbook Views group

This shows you the size of the margins. ...

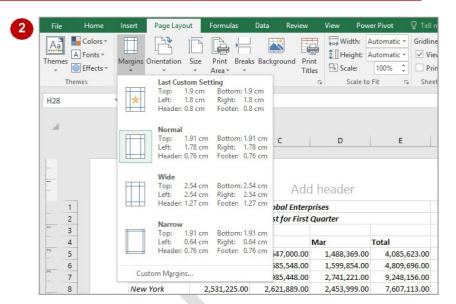
Click on the **Page Layout** tab, then click
on **Margins** in the **Page Setup** group to display
a menu of options

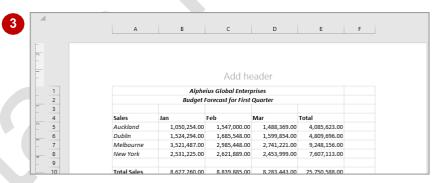
If a custom setting has recently been created it will also be listed here...

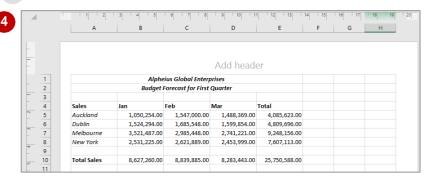
- Select Wide
 - This increases the size of the margins, providing more white space around the data...
- Repeat step 2 to select Narrow

This setting reduces the margins to a minimum so you can fit more on one page...

Repeat step 2 to select Normal to restore the original settings







For Your Reference...

To use built-in margins:

- 1. Click on the Page Layout tab
- 2. Click on *Margins* in the *Page Setup* group
- 3. Select an option

Handy to Know...

- You can activate Page Layout view by clicking on the Page Layout icon in the status bar.
- The Narrow margin option reduces the width of the left and right margins but sets the top and bottom margins to the same width as Normal to allow for headers and footers.

SETTING CUSTOM MARGINS

You can change the left, right, top and bottom margins to any size you like. This is especially helpful if you need to meet corporate specifications or if you simply want more room on

the left margin to allow for things such as holes to be punched in the printed page. You can change one or two margin settings or modify all of them.

Try This Yourself:

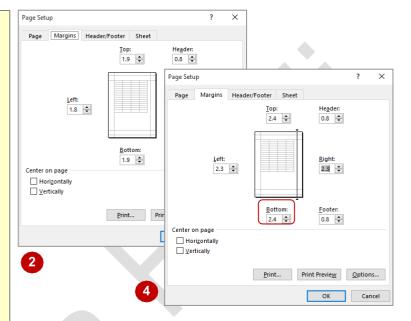
- Continue using the previous file with this exercise, or open the file Page Setup_2.xlsx...
- Ensure the **Small** worksheet tab is selected and **Page Layout** view is active
- On the **Page Layout** tab, click on **Margins** in the **Page Setup** group, then select **Custom Margins** to display the **Page Setup** dialog box
- On the *Margins* tab of the dialog box, click once on the up spinner arrows for *Top* and *Bottom* so they read *2.4*

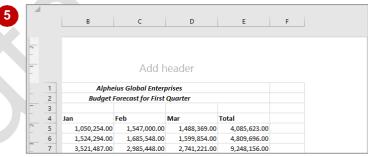
As you click, the corresponding rule in the preview will be highlighted...

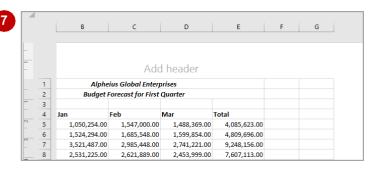
- Click once on the up spinner arrows for *Left* and *Right* so they read 2.3
- Click on **[OK]** to apply the settings and make the margins wider
- On the **Page Layout** tab, click on **Margins**

The custom settings you created will be displayed at the top of the list so you can apply these settings to other spreadsheets...

Select **Normal** to return the margins to the default size







For Your Reference...

To **set custom margins**:

- Click on the *Page Layout* tab, click on *Margins* in the *Page Setup* group, then select Custom Margins
- 2. Change the settings as required
- 3. Click on [OK]

Handy to Know...

 The margin size spinner arrows in the Page Setup dialog box increase or decrease the margins in units of 0.1cm. If you wish to increase or decrease the size of the margins by a different unit, you can select the existing settings and type a measurement with up to two decimal places.

CHANGING MARGINS BY DRAGGING

Margins can be adjusted by clicking and dragging on the ruler in *Page Layout* view. This saves you having to use the *Page Setup* dialog box. If you aren't sure exactly what size you want the

margins to be, but you want to fit more content on a page, you can drag the margins out until the extra data fits. Alternatively, you can drag with lots of care to create a margin of a specific width.

Try This Yourself:

- Continue using the previous file with this exercise, or open the file Page Setup_3.xlsx...
- 1 Ensure the *Small* worksheet tab is selected and that *Page Layout* view is active
- Point to the left margin in the horizontal ruler to display the tool tip, as shown

This tells you that the margin is currently 1.78 cm...

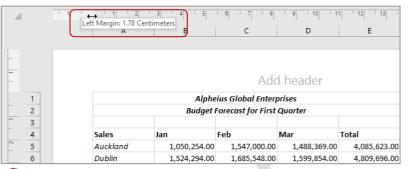
Drag the margin to the right until the tool tip reads 2.54 Centimetres, as shown

A vertical line will appear down the page showing you exactly where the margin will align...

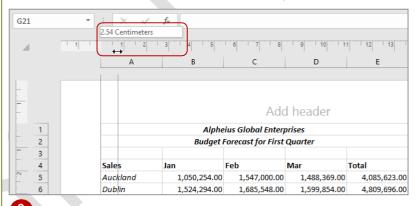
Release the mouse to adjust the margin

The text now aligns where the vertical line appeared...

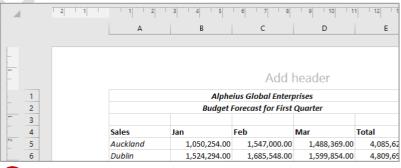
- Point to the right margin to display the current margin size
- Drag the right margin to the left until it reads 2.54 centimetres
- Release the mouse to adjust the margin
- On the *Page Layout* tab, click on *Margins* in the *Page Setup* group and select Last Custom Setting













For Your Reference...

To **change margins** by **dragging**:

- 1. Click on the *View* tab
- 2. Click on *Page Layout* in the *Workbook Views* group
- 3. Drag the margin either in or out as required

Handy to Know...

 When you drag margins into a new position you can't use *Undo* to restore them. If you're concerned about ruining the layout, save the spreadsheet before adjusting the margins and then close without saving if you're not satisfied with the result. Otherwise, you can just drag them to another position.

CENTRING ON A PAGE

Unless you specify otherwise, the data in your spreadsheet will be printed at the top left-hand corner of the page, commencing immediately below the header section of the page and

immediately to the right of the left margin. Sometimes it enhances the appearance of a page if you centre the data on the page. You can centre data horizontally, vertically, or both.

Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_4.xlsx...

- Ensure the *Small* worksheet tab is selected and *Page Layout* view is active
- Click on the *Page Layout* tab, click on *Margins*, then select **Custom Margins** to display the *Page Setup* dialog box

Note the Centre on page settings, in the bottom half of the dialog box...

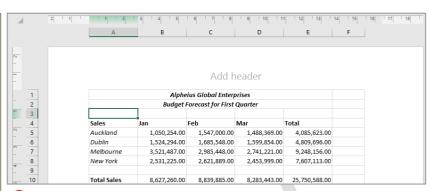
- Under Centre on page, click on the checkboxes for Horizontally and Vertically so they appear ticked
- Click on [OK]

You may notice the spreadsheet has moved further in from the left margin but it appears to still starts at the top of the page...

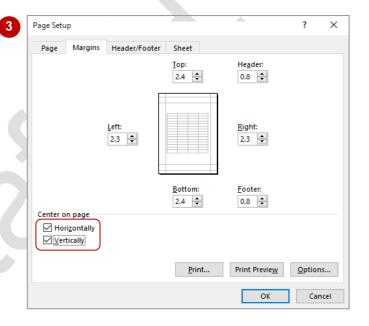
Click on the *File* tab, then click on *Print*

From the preview it is clear that the adjustments will be made when the spreadsheet is printed...

Click on the **Back** arrow to return to the worksheet







For Your Reference...

To centre data on a page:

- Click on the *Page Layout* tab, click on *Margins* in the *Page Setup* group, then select Custom Margins
- 2. Click on the checkboxes for *Horizontally* and *Vertically* in *Centre on page* until they both appear ticked, then click on [OK]

Handy to Know...

 The horizontal centring occurs between the left and right margins, and the vertical centring between the top and bottom margins. To ensure that the data is centred perfectly on the page, the left and right margins must be equal, and the top and bottom margins must be equal.

CHANGING ORIENTATION

There may be times when you want a large print job to appear on one page. Excel has a number of features to help you do this. The first method is to change the *page orientation*. The normal

page orientation is *portrait* where the page is taller than it is wide. To fit a wide spreadsheet on a page you can turn the paper around so that it is sideways – this is called *landscape*.

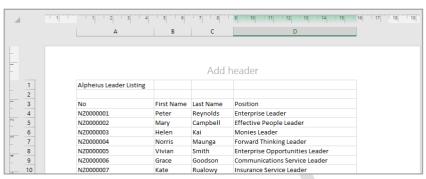
Try This Yourself:

- Continue using the previous file with this exercise, or open the file Page Setup_5.xlsx...
- Click on the *Large* worksheet tab to display this worksheet
- Click on the View tab, then click on Page Layout in the Workbook Views group
- Click on the **Page Layout** tab, then click
 on **Orientation** in the **Page Setup** group

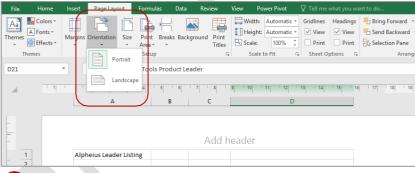
The two options for orientation are Portrait and Landscape. At the moment, the Portrait orientation is selected...

Select Landscape

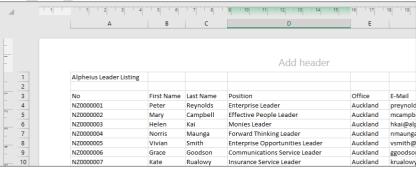
The page now fits more columns of data













For Your Reference...

To **change** the **page orientation**:

- 1. Click on the Page Layout tab
- 2. Click on *Orientation* in the *Page Setup* group
- 3. Select Portrait or Landscape

Handy to Know...

 You can access the page orientation settings by clicking on the *File* tab, clicking on *Print*, then clicking on *Page Setup*.

SPECIFYING THE PAPER SIZE

While the majority of the work you'll print will be on A4 paper, there may be times when you want to print on larger or smaller sheets of paper. For instance you may want to print a poster at A3

size (as long as your printer is capable) while you may prefer to print a menu or flyer at A5 size. Excel allows you to specify the paper size to print on so that you can see the layout and prepare the data.

Try This Yourself:

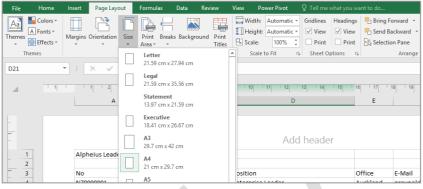
- Continue using the previous file with this exercise, or open the file Page Setup_6.xlsx...
- Ensure the Large worksheet tab is selected and Page Layout view is active, then click on the Page Layout tab
- Click on Size in the Page Setup group to display a menu of options, as shown

Notice A4 is currently highlighted in green, indicating that the current paper size is A4.

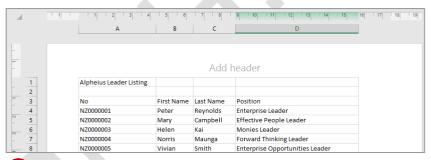
The paper sizes available are controlled in part by which printer you have selected...

- Select **A5** to see how much data would fit on the smaller paper size
- Repeat step 2 to select A4 again

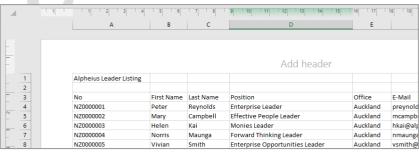
Now the data fits across the page













For Your Reference...

To **specify** the **paper size**:

- Click on the *Page Layout* tab, then click on *Size* in the *Page Setup* group
- 2. Select the paper size of your choice

Handy to Know...

- You can access the paper size settings by clicking on the *File* tab, clicking on *Print*, then clicking on *Page Setup*.
- You can access the printer settings and check all available paper sizes by clicking on Page Layout > Page Setup > Size, then selecting More Paper Sizes.

SETTING THE PRINT AREA

By default, Excel's *print area* is all of the data in the current worksheet. One option for printing part of the data is to select it, then print the selection. However, if you want to print this area

frequently, you would have to reselect it each time you open the file. **Print areas**, on the other hand, are saved with the spreadsheet so that you can use them at a later date.

Try This Yourself:

- Continue using the previous file with this exercise, or open the file Page Setup_7.xlsx...
- Ensure the Large worksheet tab is selected and Normal view is active, then select the range A3:G21

This is the list of staff in Auckland...

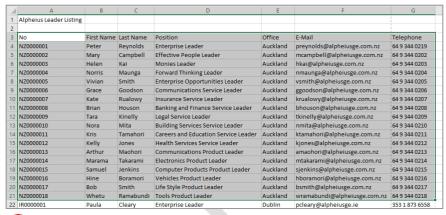
- Click on the **Page Layout** tab, then click
 on **Print Area** in the **Page Setup** group
- Select Set Print
 Area, then click away
 from the selected
 area to deselect it

After a moment a line will appear around the area...

Click on the *File* tab, then click on *Print*

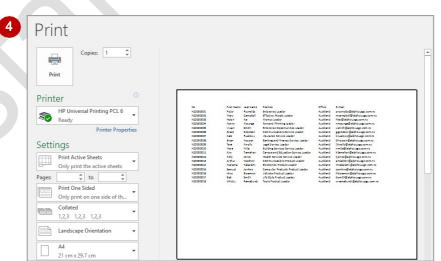
The print preview shows you that only the Auckland data will be printed, as per the print area...

Click on the **Back** arrow to return to the worksheet









For Your Reference...

To **set** a **print area**:

- 1. Select the range
- 2. Click on the Page Layout tab
- 3. Click on *Print Area*, then select **Set Print Area**

Handy to Know...

 You can set non-contiguous areas as the print area but each range will print on a separate page. To print two different parts of a worksheet adjacent to each other, select the area between the ranges then click on Home > Cells > Format, then select Hide & UnHide > Hide Rows/Columns.

CLEARING THE PRINT AREA

Any print area that you set is saved with the spreadsheet and will be remembered next time you go to print that particular worksheet. If you want to print another part of the worksheet, you

need to clear the existing print area. If you have several non-contiguous ranges set as the print area, these will all be cleared at once when you clear the print area.

Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_8.xlsx...

Ensure the Large worksheet tab is selected and Normal view is active

You can see the print area indicated by a line around the cells...

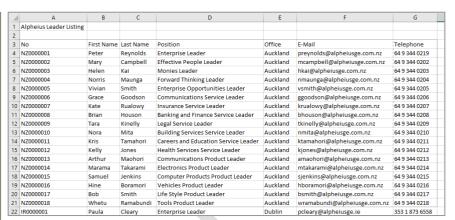
On the Page Layout tab, click on Print Area in the Page Setup group, then select Clear Print Area

The print area outline will disappear...

Click on the *File* tab, then click on *Print*

The preview shows that all of the data will now print...

4 Click on the **Back** arrow to return to the worksheet









For Your Reference...

To *clear* a *print area*:

- 1. Click on the Page Layout tab
- 2. Click on Print Area in the Page Setup group
- 3. Select Clear Print Area

Handy to Know...

- You can add to existing print areas by selecting another range then clicking on Print Area and selecting Add to Print Area.
- You can replace an existing print area by selecting and setting another range.

INSERTING PAGE BREAKS

Excel creates its own page breaks when you print preview a worksheet and displays them as dashed lines across and down the worksheet. However, you do have the option of inserting

your own page breaks wherever you need them. You can insert them at the start of a column, the start of a row, or in fact in any cell in the worksheet except A1.

Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_9.xlsx...

Ensure the Large worksheet tab is selected and Page Layout view is active, then click in cell A22 to select the cell

This is the first record for the staff in Dublin. We want to list them on a separate page...

Click on the Page
Layout tab, click on
Breaks in the Page
Setup group, then select
Insert Page Break

Cell A22 now appears at the start of the second page...

Scroll up and examine the first page

Only the first 21 rows will be printed on this page...

Repeat steps 1 and 2 to insert page breaks at cell A40, A58 and A76 so that every city starts on a new page

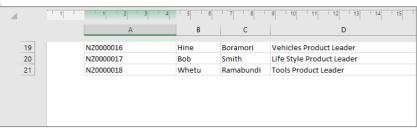
Scroll up to view the changes

1 2 3 4 5 6 77 8 79 10 11 12 13 14 15						
			А	В	С	D
F	15		NZ0000012	Kelly	Jones	Health Services Service Leader
00	16		NZ0000013	Arthur	Maohori	Communications Product Leader
-	17		NZ0000014	Marama	Takarami	Electronics Product Leader
o	18		NZ0000015	Samuel	Jenkins	Computer Products Product Leader
-	19		NZ0000016	Hine	Boramori	Vehicles Product Leader
0	20		NZ0000017	Bob	Smith	Life Style Product Leader
-	21		NZ0000018	Whetu	Ramabundi	Tools Product Leader
=	22		IR0000001	Paula	Cleary	Enterprise Leader
	23		IR0000002	Suzanne	O'Dowd	Effective People Leader
12	24		IR0000003	Eileen	Roddy	Monies Leader
-	25		IR0000004	Conor	Healy	Forward Thinking Leader
<u>m</u>	26		IR0000005	Peter	Morrow	Enterprise Opportunities Leader
E	27		IR0000006	Anthony	O'Brien	Communications Service Leader



4	11111	1 2 3 4	5 6	7 8	9 10 11 12 13 14 1
		А	В	С	D
_					Add header
			-		
22		IR0000001	Paula	Cleary	Enterprise Leader
23		IR0000002	Suzanne	O'Dowd	Effective People Leader
24		IR0000003	Eileen	Roddy	Monies Leader
25		IR0000004	Conor	Healy	Forward Thinking Leader
26		IR0000005	Peter	Morrow	Enterprise Opportunities Leader
27		IR0000006	Anthony	O'Brien	Communications Service Leader
28		IR0000007	Marty	Doyle	Insurance Service Leader
20		IR0000008	Eireann	McCafferty	Banking and Finance Service Leader
29					Legal Service Leader







For Your Reference...

To *insert* a *page break*:

- 1. Click on the Page Layout tab
- 2. Click on Breaks in the Page Layout group
- 3. Select Insert Page Break

Handy to Know...

 You can also insert vertical page breaks by clicking in the first row (i.e. cell) of a column and clicking on *Breaks* then selecting *Insert* Page Break. The page break will be inserted to the left of the selected column.

USING PAGE BREAK PREVIEW

Page Break Preview is a special view created to help you rearrange and organise page breaks. It zooms out from the worksheet so that you can see more of the pages and see the effect that

changes to margins or formatting changes have on the position of page breaks. Page breaks can be either inserted by you (*manual* page breaks) or created by Excel (*automatic* page breaks).

Try This Yourself:

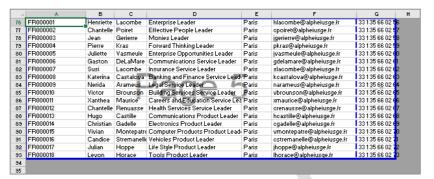
Continue using the previous file with this exercise, or open the file Page Setup_10.xlsx...

- Ensure the Large worksheet tab is active, click on the View tab, then click on Page Break Preview in the Workbook Views group to display the workbook in this view
- Scroll up so that you can see page 1

The page breaks are clearly marked by solid blue lines to signify they were inserted by you and differentiate them from the automatic page breaks Excel creates, which appear as dashed lines...

- Drag the second blue line (bottom of page 2) down to before cell *A45* to make page 2 longer
- 4 Click on **Normal** in the **Workbook Views** group

You'll see that the position of the line has changed





d	A	В	С	D	E	F	G	
22	IR0000001 P	aula	Cleary	Enterprise Leader	Dublin	pcleary@alpheiusge.ie	353 1873 655	
23	IR0000002 S	uzanne	O'Dowd	Effective People Leader	Dublin	sodowd@alpheiusge.ie	353 1873 655	
24	IR0000003 E	ileen	Roddy	Monies Leader	Dublin	eroddy@alpheiusge.ie	353 1873 656	
25	IR0000004 C	onor	Healy	Forward Thinking Leader	Dublin	chealy@alpheiusge.ie	353 1873 656	
26	IR0000005 P	eter	Morrow	Enterprise Opportunities Leader	Dublin	pmorrow@alpheiusge.ie	353 1873 656	
27	IR0000006 A	nthony	O'Brien	Communications Service Leader	Dublin	aobrien@alpheiusge.ie	353 1873 656	
28	IR0000007 M	larty	Doyle	Insurance Service Leader	Dublin	mdoyle@alpheiusge.ie	353 1873 656	
29	IR0000008 E	ireann	McCafferty	Banking and Finance Service Leads	Dublin	emccafferty@alpheiusge.ie	353 1873 656	
30	IR0000009 M	lelissa	Quinn	Legal Service Leader	Dublin	mquinn@alpheiusge.ie	353 1873 656	
31	IR0000010 P	addų	Deegan	Building Services Service Leader	Dublin	pdeegan@alpheiusge.ie	353 1873 656	
32	IR0000011 K	ira	Converg	Careers and Education Service Lea	Dublin	kconvery@alpheiusge.ie	353 1873 656	
33	IR0000012 D	esmond	Hayes 📂	Health Services Service Leader 🥒	Dublin	dhayes@alpheiusge.ie	353 1873 656	
34	IR0000013 T	ara	Connol	Communications Product Leader	Bublin	tconnoly@alpheiusge.ie	353 1873 657	
35	IR0000014 D	arren	Grant	Electronics Product Leader	Dublin	dgrant@alpheiusge.ie	353 1873 657	
36	IR0000015 M	lichelle	Cahalan	Computer Products Product Leads	Dublin	mcahalan@alpheiusge.ie	353 1873 657:	
37	IR0000016 S	iobhan	Kelliher	Vehicles Product Leader	Dublin	skelliher@alpheiusge.ie	353 1873 657	
38	IR0000017 N	ora	Caissie	Life Style Product Leader	Dublin	ncaissie@alpeiusge.ie	353 1873 657	
39	IR0000018 A	lana	Keane	Tools Product Leader	Dublin	akeane@alpheiusge.ie	353 1873 657	
40	AU000001 Jo	ulianne	Kerr	Enterprise Leader	Melbourne	jkerr@alpheiusge.com.au	613 9844 000	
41	AU0000002 H	arry	Jones	Effective People Leader	Melbourne	hjones@alpheiusge.com.au	613 9844 000:	
42	AU000003 A	ngel	Harrington	Monies Leader	Melbourne	aharrignton@alpheiusge.com.a	613 9844 000	
43		eter	Dawson	Forward Thinking Leader		pdawson@alpheiusge.com.au		
44	AU000005 M	lark .	Jones	Enterprise Opportunities Leader	Melbourne	mjones@alpheiusge.com.au	613 9844 000	
45	AU000006 M	laureen	Grayson	Communications Service Leader	Melbourne	mgrayson@alpheiusge.com.au	613 9844 000	
46	AU000007 A	ugustine	Millson	Insurance Service Leader	Melbourne	amillson@alpheiusge.com.au	613 9844 000	



4	А	В	С	D	E
39	IR0000018	Alana	Keane	Tools Product Leader	Dublin
40	AU000001	Julianne	Kerr	Enterprise Leader	Melbourne
41	AU000002	Harry	Jones	Effective People Leader	Melbourne
42	AU000003	Angel	Harrington	Monies Leader	Melbourne
43	AU000004	Peter	Dawson	Forward Thinking Leader	Melbourne
44	AU000005	Mark	Jones	Enterprise Opportunities Leader	Melbourne
45	AU000006	Maureen	Grayson	Communications Service Leader	Melbourne
46	AU000007	Augustine	Millson	Insurance Service Leader	Melbourne
47	AU000008	Amanda	Bennet	Banking and Finance Service Leader	Melbourne
48	AU000009	George	Samuelson	Legal Service Leader	Melbourne
49	AU000010	Neville	Smith	Building Services Service Leader	Melbourne



For Your Reference...

To use Page Break Preview:

- Click on the View tab, then click on Page Break Preview in the Workbook Views group
- 2. Drag page breaks into new positions as needed

Handy to Know...

- You can drag the vertical page breaks as well as the horizontal ones. For example, by dragging the far right page break across one column to the left we could have prevented the final column from being printed.
- If you move automatic page breaks, they become manual page breaks.

REMOVING PAGE BREAKS

Manual page breaks are suitable if you always want the pages to start where you have indicated. However, circumstances may change; you may find that you don't need the page breaks

anymore and wish to remove them. You can remove page breaks one at a time or all at once. If you remove all manual page breaks, they will be replaced by automatic ones.

Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_11.xlsx...

- Ensure the *Large*worksheet tab is selected
 and *Page Layout* view is
 active
- 2 Scroll to and click in cell A22

To remove a single page break, click in the cell where the page break was inserted – immediately below the page break line...

Click on the *Page Layout* tab, click on *Breaks* in the *Page Setup* group, then select **Remove Page Break**

The page break will be deleted and a computergenerated one will appear between rows 33 and 34.

You can also remove every manual page break in a worksheet simultaneously...

Click on *Breaks* in the *Page*Setup group, then select
Reset All Page Breaks

All of the page breaks that you created will be removed and automatic page breaks will be inserted where they're needed

		11	1 2 3 4	5 6	7 8	9 10 11 12 13 14 15
			A	В	С	D
F						
-	Add hea				Add header	
	22		IR0000001	Paula	Cleary	Enterprise Leader
	23		IR0000002	Suzanne	O'Dowd	Effective People Leader
_	24		IR0000003	Eileen	Roddy	Monies Leader
0	25		IR0000004	Conor	Healy	Forward Thinking Leader
-	26		IR0000005	Peter	Morrow	Enterprise Opportunities Leader
m	27		IR0000006	Anthony	O'Brien	Communications Service Leader
-	28		IR0000007	Marty	Doyle	Insurance Service Leader
4	29		IR0000008	Eireann	McCafferty	Banking and Finance Service Leader

If the page breaks aren't visible, click on the View tab, then click on Normal in Workbook Views to refresh them

	1	11	1 2 3 4	5 6	7 8	9 10 11 12 13 14 15
			A	В	С	D
l	19		NZ0000016	Hine	Boramori	Vehicles Product Leader
9	20		NZ0000017	Bob	Smith	Life Style Product Leader
-	21		NZ0000018	Whetu	Ramabundi	Tools Product Leader
=	22		IR0000001	Paula	Cleary	Enterprise Leader
	23		IR0000002	Suzanne	O'Dowd	Effective People Leader
2	24		IR0000003	Eileen	Roddy	Monies Leader
	25		IR0000004	Conor	Healy	Forward Thinking Leader
=	26		IR0000005	Peter	Morrow	Enterprise Opportunities Leader
	27		IR0000006	Anthony	O'Brien	Communications Service Leader
14	28		IR0000007	Marty	Doyle	Insurance Service Leader
-	29		IR0000008	Eireann	McCafferty	Banking and Finance Service Leader
-	30		IR0000009	Melissa	Quinn	Legal Service Leader



For Your Reference...

To remove page break(s):

- 1. Click in the cell with the page break
- 2. Click on the **Page Layout** tab, then click on **Breaks** in the **Page Setup** group
- 3. Select Remove Page Break or Reset All Page Breaks

Handy to Know...

- You can't remove automatic page breaks.
 These are created by Excel and are controlled by the paper size and the specifications of the selected printer.
- When you select Reset All Page Breaks Excel removes manual page breaks in the current worksheet only.

SETTING A BACKGROUND

Background refers to the area behind the numbers and text in the spreadsheet – the area that is plain white, by default. You can insert a photograph or other graphic file such as a clip art

into the background for display purposes, but they are not printed. The image will be inserted at its default size and then tiled across the background of the entire worksheet.

Try This Yourself:

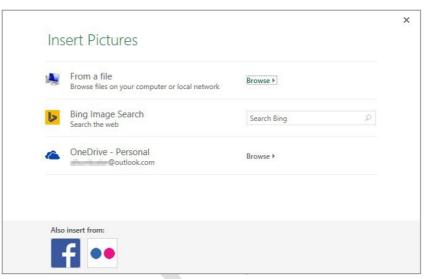
Continue using the previous file with this exercise, or open the file Page Setup_12.xlsx...

Ensure the Large worksheet tab is selected and Page Layout view is active, then press [ctrl] + [Home] to return to cell A1

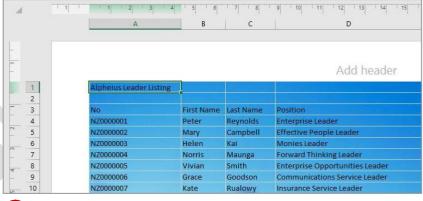
The background of the worksheet is currently white...

- Click on the Page
 Layout tab, then click
 on Background in the
 Page Setup group to
 display the Insert
 Pictures pane
- Next to *From a file* click on *Browse* to display the *Sheet Background* dialog box
- A Navigate to the course files folder
- Click on *Dock.jpg*, then click on [Insert]

The white background of the spreadsheet will be replaced by the photograph









For Your Reference...

To set a background:

- 1. Click on the Page Layout tab
- 2. Click on **Background** in the **Page Setup** group
- 3. Locate and click on the image file
- 4. Click on [Insert]

Handy to Know...

 If you set a background, make sure that the figures and other information in the worksheet are still easy to read. If the background is quite dark, you may like to change the font colour to white or yellow. Either that or modify the image to create a paler version.

CLEARING THE BACKGROUND

If you change your mind about the background you have applied for whatever reason, you can easily remove it. To replace the background with another image you must delete the current

background before setting another. When a background is set, the **Background** tool in the **Page Setup** group on the **Page Layout** tab changes to **Delete Background**.

Try This Yourself:

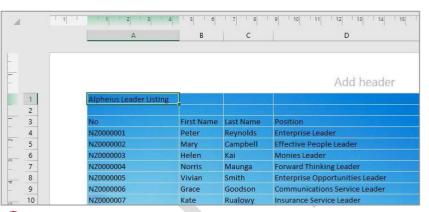
Continue using the previous file with this exercise, or open the file Page Setup_13.xlsx...

Ensure the Large worksheet tab is selected and Page Layout view is active, then examine the worksheet

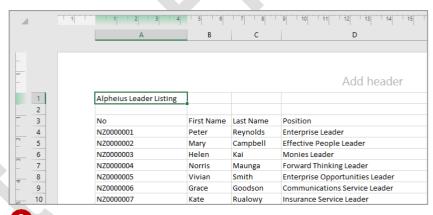
The background is currently filled with a photograph, tiled across the entire worksheet...

On the Page Layout tab, click on Delete Background in the Page Setup group

The default white background will be restored







2

For Your Reference...

To **clear** a **background**:

- 1. Click on the Page Layout tab
- 2. Click on **Delete Background** in the **Page Setup** group

Handy to Know...

 An alternative to using a background image is to use *Fill Colour* in the *Font* group on the *Home* tab. Simply select the cells that you want to apply the fill colour to before selecting a colour.

SETTINGS ROWS AS REPEATING PRINT TITLES

If you have a long list of data to print, it can be confusing by the time you get to the third page if you can't remember what each of the columns refers to. To make it easier for you to interpret

printed data, Excel allows you to set a row or rows as print titles that are repeated at the top of every page. This way, each column has its own heading no matter which page it is on.

Try This Yourself:

- Continue using the previous file with this exercise, or open the file Page Setup_14.xlsx...
- 1 Ensure the workbook is in Page Layout view, then on the Page Layout tab, click on Print Titles in the Page Setup group to display the Sheet tab of the Page Setup dialog box
- Click in *Rows to repeat at top*, then click on the row header for row *3*

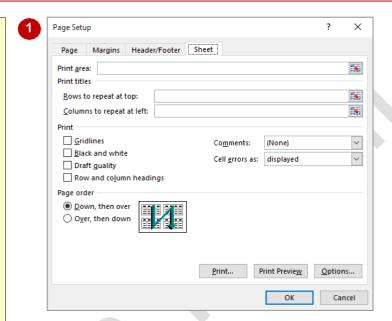
This inserts the reference \$3:\$3 in the text box...

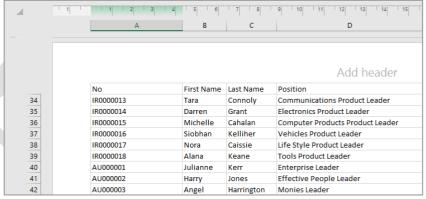
- Click on **[OK]** to apply the changes
- Scroll down to see the titles in row three repeated at the top of every page

In Normal view, the spreadsheet will appear unchanged....

Click on the *View* tab, click on *Normal* view in the *Workbook Views* group, then scroll down to page 2

The titles in row 3 don't appear at the top of this page and if you scroll further, you will see that they don't appear at the top of any of the pages







For Your Reference...

To set a row as a repeated print title:

- 1. Click on the Page Layout tab
- 2. Click on **Print Titles** in the **Page Setup** group
- 3. Click in *Rows to repeat at top*, then click on the row header(s)
- 4. Click on [OK]

Handy to Know...

 If you only want part of a row to be repeated at the top of a page, set the part of the list that you want to display as the *print area*. The rows and columns then repeated as titles will only be those that appear in the print area.

CLEARING PRINT TITLES

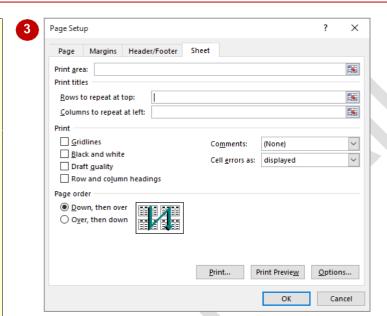
Print titles are columns that are repeated on the left of every page or rows that are repeated at the top of every page. They make it easier to understand tables of information. However, if

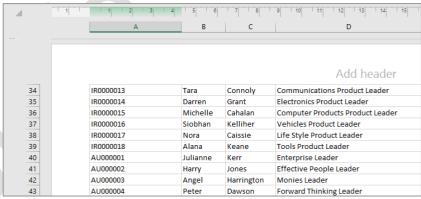
your worksheet has repeated titles that you no longer need, you can *clear* them simply by removing the row or column references in the *Page Setup* dialog box.

Try This Yourself:

- Continue using the previous file with this exercise, or open the file Page Setup_15.xlsx...
- Ensure the Large worksheet tab is selected and that Page Layout view is enabled
- Click on the Page Layout tab, then click on Print Titles in the Page Setup group
- Select the range in Rows to repeat at top, then press Del
- Click on [OK] to apply the change, then scroll down the worksheet

There are no longer headers for each column in the table on the second page and subsequent pages







For Your Reference...

To *clear print titles*:

- Click on the *Page Layout* tab, then click on *Print Titles* in the *Page Setup* group
- Select the ranges in Rows to repeat at top or Columns to repeat at left, then press Del
 - 3. Click on [OK]

Handy to Know...

 When you set rows or columns to be repeated on each page, Excel automatically creates a range name of *Print_Titles* for the cells that will be repeated. You can identify which cells will be repeated by selecting this range using the *Name box* in the *Formula Bar*.

PRINTING GRIDLINES

In longer lists with row after row of data, it can be difficult to follow data across the printed page. In these situations, it may be more convenient to **print gridlines** with the report so that you can

easily follow data across the page or down the page. Gridlines also make the process of proofing and editing a worksheet much easier.

Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_16.xlsx...

- Select the Large worksheet, then ensure that the Page Layout tab is active
- In the **Sheet Options** group, click on **Print** under **Gridlines** so it appears ticked

Let's see how the gridlines will look...

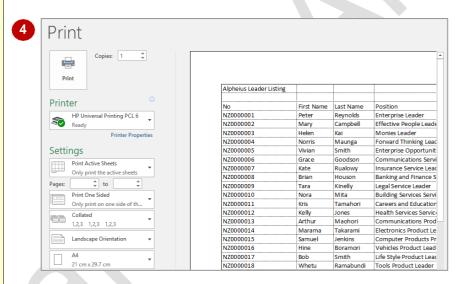
Click on the *File* tab, then click on *Print* to see a preview of the worksheet

The preview clearly shows that the gridlines will print with the rest of the worksheet...

- Click on **Zoom to Page** to make the preview larger, so you can view it more easily
- Click on the **Back** arrow to return to the worksheet







For Your Reference...

To print gridlines:

- 1. Click on the Page Layout tab
- In the Sheet Options group, click on Print under Gridlines
- 3. Print the worksheet

Handy to Know...

 You can print gridlines by clicking on the Sheet tab of the Page Setup dialog box, then clicking on Gridlines so it appears ticked. The Page Setup dialog box is accessible by clicking on the dialog box launcher in the Sheet Options group on the Page Layout tab.

PRINTING HEADINGS

The term *headings*, in a spreadsheet, refers to the column and row headings – the letters across the top and the numbers down the left. These help you locate and identify specific cells and are

particularly helpful if you are trying to check the integrity of formulas and other information in the spreadsheet. You can choose to print headings with the rest of your data.

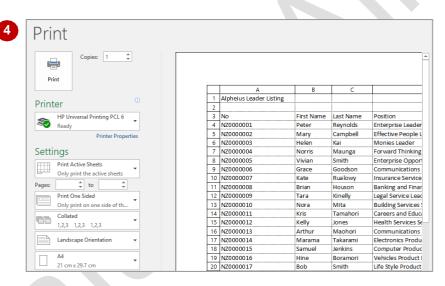
Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_17.xlsx...

- Select the Large worksheet and ensure that the Page Layout tab is active
- In the **Sheet**Options group, click
 on **Print** under
 Headings so it
 appears ticked
- Click on the *File* tab, then click on *Print* to display a preview of the document
- Click on **Zoom to Page** to make the preview larger if necessary, so you can view it more easily
- Click on the **Back** arrow to return to the worksheet







For Your Reference...

To print headings:

- 1. Click on the Page Layout tab
- 2. In the **Sheet Options** group, click on **Print** under **Headings** so it appears ticked

Handy to Know...

 You can print headings by clicking on the Sheet tab of the Page Setup dialog box, then clicking on Row and column headings so it appears ticked. The Page Setup dialog box is accessible by clicking on the dialog box launcher in the Sheet Options group on the Page Layout tab.

SCALING TO A PERCENTAGE

If you want to increase or decrease the size of data to make the best use of available space, you can change the **scale** at which the spreadsheet will be printed by percentage. For example, if you

have a small amount of data and want to increase the size, you could change the percentage to 110%. If you want to shrink the data to fit more on a page, you could choose 90%.

Try This Yourself:

Continue using the previous file with this exercise, or open the file Page Setup_18.xlsx...

Click on the worksheet tab for *Small* to display the worksheet, then ensure *Page Layout* view is active

We want to make this as large as possible without going onto a second page...

On the **Page Layout** tab, click on the up spinner arrow for **Scale** in the **Scale to Fit** group to increase the percentage to **105%**

You'll notice that fewer columns fit on the page...

Click on the up spinner arrow for **Scale** in the **Scale to Fit** group three times to increase the percentage to **120**%

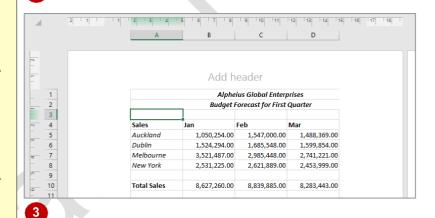
Notice all of the data no longer fits on the page...

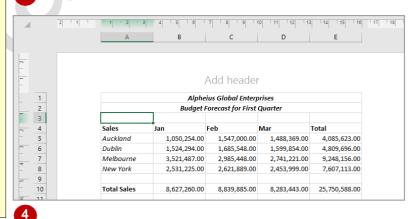
Click on the down spinner arrow for **Scale** in the **Scale** to **Fit** group to decrease the percentage to **115**%

Click on the *File* tab, then click on *Print* to display a preview of the document

Click on the **Back** arrow to return to the worksheet

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	2			Budget	Forecast for First	Quarter		
	3							
	4		Sales	Jan	Feb	Mar	Total	
2	5		Auckland	1,050,254.00	1,547,000.00	1,488,369.00	4,085,623.00	
	6		Dublin	1,524,294.00	1,685,548.00	1,599,854.00	4,809,696.00	
m	7		Melbourne	3,521,487.00	2,985,448.00	2,741,221.00	9,248,156.00	
	8		New York	2,531,225.00	2,621,889.00	2,453,999.00	7,607,113.00	
_	9							
10	10		Total Sales	8,627,260.00	8,839,885.00	8,283,443.00	25,750,588.00	





For Your Reference...

To **scale** to a **percentage**:

- 1. Click on the Page Layout tab
- 2. Click on one of the spinner arrows for *Scale* in the *Scale to Fit* group

Handy to Know...

If you know exactly what percentage you
want to scale to, you can click on the *Page*Layout tab, click in the box for *Scale* in the
Scale to Fit group, then type the desired
number.

FIT TO A SPECIFIC NUMBER OF PAGES

If you only need to scale the data down a small amount to get it to fit onto one page, you can try the **Scale to Fit** options of **Height** or **Width**. These allow you to specify how many pages high

and how many pages wide you want the printed worksheet to fit into. By default, *Height* and *Width* are set to *Automatic* and Excel then assumes you want to print according to the format settings.

Try This Yourself:

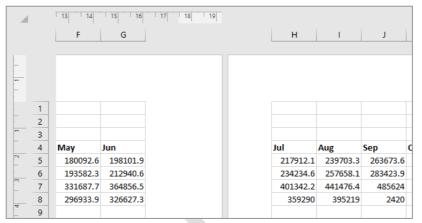
- Continue using the previous file with this exercise, or open the file Page Setup_19.xlsx...
- Click on the **Medium** worksheet tab, click on the **View** tab, then click on **Page Layout** in the **Workbook Views** group to view the worksheet in **Page Layout** view
- 2 Scroll across to see how the worksheet is spread over two pages

The status bar also indicated this...

Click on the *Page Layout* tab, click on the drop arrow for *Width* in the *Scale to Fit* group, then select **1 page**

The worksheet is scaled down to fit on one page.

Notice the status bar now reads Page 1 of 1





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	2	8		New York	253122.5	262188.9	245399.9)
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		10		Total Sales	862726	883988.5	828344.3	3
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	m	12		Costs	Jan	Feb	Mar	Α
	-	13		Auckland	55099.8	85055.4	81887.4	1
		14		Dublin	83822.3	92677.8	87911.4	1
	4	15		Melbourne	193688.2	164155.4	150777.4	1
4		16		New York	139266.6	144144.7	134955.2	2
J	-	17						
٦		18		Total Costs	471876.9	486033.3	455531.4	1
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	Ready	•	Page: 1 of 1					



For Your Reference...

To fit to a specific number of pages:

- 1. Click on the Page Layout tab
- 2. Click on the drop arrow for **Width** or **Height** in the **Scale to Fit** group
- 3. Select the required number of pages

Handy to Know...

 You can't undo the changes you make using the Scale to Fit settings in the Scale to Fit group on the Page Layout tab so make sure you save your worksheet before trying them. This way you can exit without saving and return to the previous version if necessary.