

Easy Steps



Unit 2784 (v7)

Create and use a computer spreadsheet
to solve a problem

with

Microsoft Excel 2013

- ☒ Easy to follow
- ☒ Step-by-step instructions
- ☒ Covers Unit Standard Criteria

A Cheryl Price Publication

Unit Standard 2784 (Version 7)

Create and use a computer spreadsheet to solve a problem - Excel 2013

This book covers the course outline for the following New Zealand Qualifications Authority Unit Standard:

Unit Standard 2784 (v7) - GENERIC COMPUTING (Level 2, Credit 3)
Create and use a computer spreadsheet to solve a problem

All topics in this Unit Standard are included in this book.

Retrievable exercise files are used with this book and listed on page xi. These are available as a free download from our web site at www.cherylprice.co.nz. Instructions for downloading the exercises are included on page xii.

This book has been written using Microsoft Excel 2013 with Windows 8.1.

Free Resource: A free resource "What is a Spreadsheet" (with manual exercises) is available on our Resources page at www.cherylprice.co.nz. This is an excellent resource for total beginners to spreadsheets or for those students who have difficulty understanding spreadsheet concepts.

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Introduction

Welcome to Unit Standard 2784 v7 Create and use a computer spreadsheet to solve a problem with Microsoft Word 2013.

This book has been written using Microsoft Excel 2013 with Windows 8.1. (The Windows 7 operating system can be used. However screen shots will differ slightly from those shown in this book.)

Retrievable Exercise Files

Some exercise files have been created for you to prevent time in keying in many exercises. You can then open these files and use the features of Excel to manipulate and format text.

A list of these files is shown on page xi and instructions for downloading these files from our web site are included on page xii.

What you will learn

In this course you will learn how to –

Create and use a computer spreadsheet to solve a problem:

- Plan a spreadsheet to solve a problem using a supplied brief
- Create a spreadsheet to solve a problem using a supplied brief
- Use the spreadsheet to provide a solution to the problem

How you will learn

This book is divided into sections. Each section page lists the learning outcomes for that section. You will work through each section and do all exercises (or those instructed by your tutor).

Revision theory is included at the end of most sections followed by a Practice Assessment. Our books include accumulation and consolidation of learning which carries across each section.

After you have completed the book your tutor will give you the actual Unit Standard Assessment.

Word meaning boxes

Sometimes you will see a box at the left side of the page of a line that has dotted underlining. This box will contain information to help you understand the meaning of the underlined word (or how that word is formed). An example is shown below.

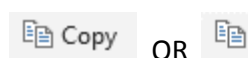
forecast
= to
calculate a
future
result

Data can therefore be altered to re-calculate budgets and to forecast results using different sales figures. Worksheets can be saved, opened and printed as required.

Different Excel buttons

Depending on the size of your Excel screen, buttons on the ribbon may vary to those shown in this book. The icon with the word of that feature may show, or the icon only.

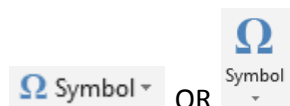
For example, the Copy button in the Clipboard group on the Home tab may be displayed in either of the following ways.



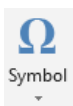
OR



The Symbol button can show as either -



OR



Shortcut keys

Shortcut keys are indicated in the left margin, usually the first time they are used. An example follows.

- Ctrl S 1 Click on the Save button  on the Quick Access Toolbar  .
- 2 Type a file name for your document then click on Save.

Glossary

Generally when a word(s) is first used that is a technical term or a word that you may not know that relates to an exercise, or a particular Excel 2013 feature, a description is given. You will also see that such words are in **bold**.

These terms are listed on each section page, an example is shown below. Explanations are also included in the Glossary at the end of the book.



In this section you will come across the following words highlighted in bold. This indicates that the word is included in the Glossary at the end of the book together with a description of that word.

Arguments
Backstage View
Cell reference
Cells
Charts

Data
Default
Dynamic
Exponential format
Fill handle

Formula
Functions
Gridlines

Icons used in this book

This book contains icons to help guide you in your learning.

The following list shows the icon and its meaning.



Learning Outcomes

Learning Outcomes are displayed on the section page and describe what you will learn in that section.



EXERCISE 1

These are the exercises that you are required to do. Often there will be an introduction sentence to tell you what you will be doing in that exercise.



These are notes for your information.



Revision

This appears at the end of most sections and contains theory revision questions relating to features learnt in that section.



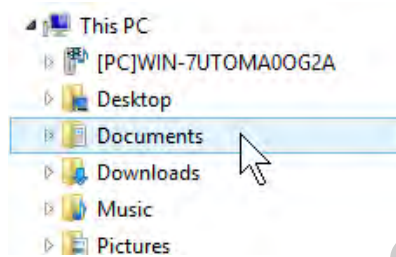
Practice Assessment

Each practice assessment covers consolidation of topics learnt in that section and provides practice for students prior to sitting the actual Unit Standard Assessment.

Save Options

When a document is saved you will be requested to select the location, ie Computer then click on the Browse button and select the folder required. You can eliminate this procedure by selecting the location and saving directly to the Save dialog box and therefore bypass Backstage view.

For the purposes of this book we have used the Documents folder within This PC as the default folder. This folder is shown below which is the shortcut for the actual path name of C:\Users\User Name\Documents. This means that files you open and save will be on your hard drive.



Use the following instructions to specify the Documents folder as the default file location:

- 1 Click on the **FILE** tab then click on **Options**.
- 2 Click on **Save** at the left.
- 3 Ensure that the Documents folder is displayed as the Default local file location as shown below.

- ☒ Don't show the Backstage when opening or saving files
- ☐ Show additional places for saving, even if sign-in may be required.
- ☐ Save to Computer by default

Default local file location:

- 4 Also ensure that *Don't show the Backstage when opening or saving files* option displays a tick.
- 5 Remove the tick from the next option *Show additional places for saving, even if sign-in may be required*.
- 6 Click on OK.



If you wish to open and save files to OneDrive (ie the cloud) use instructions on the next page. If you have Windows 8, or have updated to Windows 8.1 from Windows 8, SkyDrive may be displayed instead of OneDrive but is essentially the same.

OneDrive

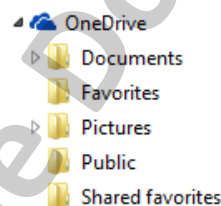
OneDrive is a cloud storage application from Microsoft. It is one of the major online file storage options competing with Dropbox and Google Drive.



Because files are stored “in the cloud” (in addition to your hard drive) it means that you can access those files from anywhere in the world because you will always have access to the OneDrive application and your files. You do however need an Internet connection for the files to be updated from your hard drive to OneDrive.



Saving to OneDrive

OneDrive is automatically set up when Microsoft Office 2013 (ie Office 365) is installed on your computer. A OneDrive folder will be displayed on the Navigation Pane in Windows Explorer as below.



Files can be saved manually by clicking on the Save button  on the Quick Access Toolbar, specifying a name for your file then clicking on the  OneDrive icon (you may wish to double click on Documents and save to that folder).

OneDrive as the Default File Location

Use the following instructions if you wish to specify OneDrive as your default file location.

- 1 Click on the **FILE** tab then click on **Options**.
- 2 Click on **Save** at the left.
- 3 Ensure that the C:\Users\User Name\OneDrive\Documents folder is displayed as the Default local file location as shown on the next page. (You may need to retype the location)
- 4 Also ensure that *Don't show the Backstage when opening or saving files* option displays a tick.

- 5 Remove the tick from the next option *Show additional places for saving, even if sign-in may be required.*

- ☒ Don't show the Backstage when opening or saving files
☐ Show additional places for saving, even if sign-in may be required.
☐ Save to Computer by default

Default local file location:

C:\Users\Cheryl\OneDrive\Documents

Browse...

- 6 Click on OK.

OneDrive Website

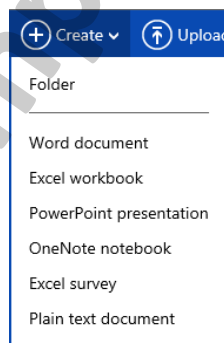
You can log in to the OneDrive website using your web browser with your login name and password.

The website is www.OneDrive.live.com.



You can upload photos and use files and share files.

New files can be created through OneDrive by clicking on **Create** and selecting the program you wish to use, eg Excel (web applications in OneDrive are slightly cut-down versions of Office 2013 programs).



Sharing Files

From within Excel 2013 you can save files to OneDrive (usually to the Documents folder) and then share those files. You can then click on the **FILE** tab, on **Share** and invite people to share files in OneDrive.

Alternatively, you can right click on a file in the OneDrive website (see above) and select Sharing.

Use Google in your web browser to search for additional information on OneDrive.

Exercise Files used in this book

(Instructions are included on the following page for downloading retrievable files from our web site at www.cherylprice.co.nz)




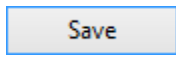

Names of files	
Atrium	Lifestyle Books
Balance Sheet	Peter Hamilton Transport
Brighton Winery	Play Time Daycare
Chatswood	Premier Books
Costello's Product Sales	Quotation
Creative Caps	Retirement Scheme
Delphine's Cooking School	Sales Commission
Eats and Treats	Spreadsheet Plan
Enrolments – 2015	Sunshine Flowers
Fashion House	Tracey's Budget
Fashion Xpress	Trade Supplies
Fiji Landing Apartments	Wilson Markers
Housekeeping Services	

Downloading Exercise Files

The exercise files listed on the previous page can be downloaded from the Cheryl Price web site using the instructions below.



For the purposes of this book we have specified Exercise files to be downloaded to the Documents folder within This PC which is the shortcut for the actual pathname of C:\Users\User Name\Documents. This is where files will be opened from and saved to.

1	In the address bar of Internet Explorer, type: www.cherylprice.co.nz
2	Press Enter on the keyboard to display the Cheryl Price website.
3	Click in the Product Search box and type the number of this unit standard, as shown at the right. <div data-bbox="1021 672 1316 851"> </div>
4	Click on 
5	Click on US 2784
6	Under the Exercise Files heading click on the underlined blue hyperlink, ie Book Exercise Files – V7 Excel 2013 Free Download The File Download dialog box will display.
7	<p>a Click on  Save as then</p> <p>b Change file name to <i>US2784 v7 Excel 2013 Book Exercise Files</i>.</p> <p>c Click on the Documents folder shown below.</p> <div data-bbox="614 1400 989 1624"> </div> <p> The Documents folder under This PC is the shortcut for C:\Users\User Name\Documents</p> <p>d Click on .</p>
8	<p>a Click on .</p> <p>b Right click on the zipped exercise file and select Extract All. Click on Extract. A folder will be created containing the exercise files.</p> <p>c Delete the Compressed (zipped) Folder.</p>

NZQA Outcomes and Evidence Requirements

Unit Standard 2784 (Version 7)

Title	Create and use a computer spreadsheet to solve a problem		
Level	2	Credits	3

Purpose	People credited with this unit standard are able to: plan and create a spreadsheet to solve a problem using a supplied brief; and use the spreadsheet to provide a solution to the problem.
----------------	---

Classification	Computing > Generic Computing
-----------------------	-------------------------------

Available grade	Achieved
------------------------	----------

Explanatory notes

- 1 The supplied brief must clearly identify the problem and the outcomes required from the solution. The brief must contain requirements against which the success or otherwise of the spreadsheet can be evaluated.
- 2 A *plan* outlines how the requirements of the brief will be realised. For this unit standard, the plan may be informal, and may be modified during the task and changes justified. It may be appropriate to produce some evidence of it during task completion rather than prior to starting the task or project. Evidence of planning may be oral, written, and/or graphic.
- 3 Legislation relevant to this unit standard includes but is not limited to the:
Copyright Act 1994;
Copyright (New Technologies) Amendment Act 2008
and any subsequent amendments.
- 4 An assessment resource to support computing unit standards (levels 1 to 4) can be found on the NZQA website at www.nzqa.govt.nz/asm. '*The Computing Process - a clarification document*' contains further information and can be found on the NZQA website.

Outcomes and evidence requirements

Outcome 1

Plan a spreadsheet to solve a problem using a supplied brief.

Evidence requirements

- 1.1 The plan identifies the purpose, specifications and features required for the spreadsheet in accordance with the brief.

Outcome 2

Create a spreadsheet to solve a problem using a supplied brief.

Evidence requirements

- 2.1 Data is entered and formatted to create the spreadsheet required by the brief.
- Range formatting may include but is not limited to – column width, alignment, text, number formats.
- 2.2 Spreadsheet cell functions and formulae are entered and accuracy and data integrity against original sources is confirmed.
- Range includes but is not limited to – add, subtract, multiply, divide, sum, average, maximum.
- 2.3 The spreadsheet is saved according to the requirements of the brief.
- Range may include but is not limited to – file type, file name, location.

Outcome 3

Use the spreadsheet to provide a solution to the problem.

Evidence requirements

- 3.1 Entered data is manipulated to provide the solution required by the brief.
- Range may include but is not limited to – new data added, formulae amended.
- 3.2 Graph appropriate to the solution is created in accordance with the brief.
- Range two different types of graphs.
- 3.3 The completed spreadsheet and graph are printed out in hard copy in a format specified by the brief and are readable.

Planned review date	31 December 2016
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	30 September 1994	31 December 2013
Review	2	24 September 1997	31 December 2013
Revision	3	28 July 1998	31 December 2013
Review	4	30 July 2002	31 December 2013
Revision	5	16 July 2004	31 December 2013
Review	6	22 May 2009	31 December 2015
Rollover and Revision	7	19 September 2013	N/A

Consent and Moderation Requirements (CMR) reference	0226
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Sample Document

Spreadsheet Theory

The Excel Screen

Opening and Exploring a Workbook

Creating a New Workbook



Learning Outcomes

At the end of this section you should be able to -

- ☐ Understand what a spreadsheet is
- ☐ Start and exit Excel 2013
- ☐ Understand the Excel 2013 screen
- ☐ Open and explore an existing workbook
- ☐ Create and save a new workbook
- ☐ Enter text, numbers and formulas into a worksheet
- ☐ Apply basic formatting to a worksheet
- ☐ Print a worksheet



In this section you will come across the following words highlighted in bold. This indicates that the word is included in the Glossary at the end of the book together with a description of that word.

Active Cell	Formula Bar	Ribbon Groups
AutoCalculate	Function	Row Headings
AutoFit	Horizontal Scroll Bar	Rows
AutoSum	Increment	Screen Tip
Backstage View	Insertion Point	Scroll Box
Cell Reference	Key Tips	Sheet Tabs
Charts	Labels	Shortcut Key
Column Header Boundary	Mouse Pointer	Shortcut Menu
Column Headings	Name Box	Spreadsheet
Columns	Navigation Pane	Status Bar
Default	Non-Adjacent Cells	Tabs
Dialog Box	Operator Symbols	Title
Dialog Box Launcher	OneDrive	Values
Editing	Protected View	Vertical Scroll Bar
Fill Handle	Quick Access Toolbar	Workbook
Formatting	Range	Worksheet
Formula	Ribbon	

Spreadsheets

A **spreadsheet** is essentially a large working area composed of **rows** and **columns** (see next page). The intersection of a row and column is called a cell ie where the row and column meet (Day Trippers on the next page is cell A1). Text and numbers are entered into these cells and formulas are used to calculate the data to provide information required.

Microsoft Excel 2013 (or any spreadsheet program) makes calculations easy - it replaces your pencil, paper and calculator. If you change data in a **worksheet**, every **formula** used with that data will automatically recalculate.

forecast
= to
calculate a
future
result

Data can therefore be altered to re-calculate budgets and to forecast results using different sales figures. Worksheets can be saved, opened and printed as required.



In this book Microsoft Excel 2013 will be referred to as Excel 2013.

Spreadsheets are widely used -

1 **In industry and commerce for**

- financial accounts
- forecasting and projection results
- recording and comparing data
- personnel details

2 **At home for**

- budgeting
- calculations for quantities, eg when painting, wallpapering
- savings and travelling expenses

3 **At schools for**

- test and examination results
- timetables
- school rolls

4 **At clubs for**

- membership fees
- sports results
- sponsorship details

Examples of other spreadsheet programs include Lotus 1-2-3, Corel Quattro Pro and OpenOffice Calc (the last of which can be freely downloaded from the Internet).

Spreadsheet/Worksheet

The word spreadsheet is a general term for any document created by a spreadsheet program; a spreadsheet is referred to in Excel 2013 as a worksheet. Both of these terms are used throughout this book but they refer to the same thing.

Unit Standard 2784 uses the term spreadsheet, so this word is used to refer to learning points that are directly relevant to the 2784 assessment.

Samples of Spreadsheets

Columns

Rows

	A	B	C	D	E	F	G	H
1	Day Trippers							
2								
3	Tours	January	February	March	April	May	June	Total
4	Hinterland Tour	256	353	178	125	374	322	1608
5	The Coast Tour	312	262	285	310	345	370	1884
6	Bryon Bay and Tweed Heads	408	478	324	314	423	384	2331
7	Fraser Island	993	810	826	786	874	882	5171
8	Brisbane in a Day	554	487	512	456	492	414	2915
9	Brisbane at Night	452	435	478	398	416	488	2667
10	Total	2975	2825	2603	2389	2924	2860	16576

	A	B	C	D	E	F
1	VitaHealth Products - Worldwide Sales					
2	2015					
3						
4		Q1	Q2	Q3	Q4	Total
5	Australia	105,000	95,600	87,500	160,200	448,300
6	Brazil	85,000	92,300	75,000	96,000	348,300
7	United States	199,000	357,000	224,785	391,255	1,172,040
8	United Kingdom	153,000	169,000	158,700	180,250	660,950
9	China	62,500	52,500	49,000	82,000	246,000
10	South Africa	75,000	84,000	70,400	96,100	325,500
11						
12	Total	679,500	850,400	665,385	1,005,805	3,201,090
13						
14						
15	2014					
16						
17		Q1	Q2	Q3	Q4	Total
18	Australia	55,000	88,000	76,000	155,350	374,350
19	Brazil	75,000	85,300	72,400	95,000	327,700
20	United States	155,000	225,000	123,950	250,780	754,730
21	United Kingdom	125,000	255,690	155,890	175,500	712,080
22	China	65,000	45,650	45,000	75,000	230,650
23	South Africa	78,000	89,000	65,890	95,200	328,090
24						
25	Total	553,000	788,640	539,130	846,830	2,727,600
26						

Sales % by Country

Country	Percentage
Australia	14%
Brazil	11%
United States	36%
United Kingdom	21%
China	8%
South Africa	10%


	A	B	C	D	E	F	G
1	Te Kea Trading Company						
2	Pricing Structure for December Sale						
3							
4							
5	Product	Cost Price	Retail Price	% Margin	Quantity in Stock	Value of Stock	Sale Price
6							
7	Calendars	\$11.00	\$18.95	41.95%	50	\$550.00	\$17.06
8	Saucepans	75	95	21.05%	25	1,875.00	85.5
9	Electric Jug	42	75.5	44.37%	32	1,344.00	67.95
10	Men's Sweatshirt	24	42.95	44.12%	55	1,320.00	38.66
11	Weedeater	185	269.9	31.46%	24	4,440.00	242.91
12	T-Shirts	15	24.85	39.64%	75	1,125.00	22.37
13	Garden Shed	295	375.5	21.44%	11	3,245.00	337.95
14	Crockpot	120	159.9	24.95%	30	3,600.00	143.91

Advantages of Spreadsheets

- Calculations can be performed quickly and easily.
- If data is altered, the calculations automatically adjust.
- **Charts** can be used to visually display data, eg bar, column, pie, line.
- Data can be calculated, grouped and sorted into a specific order for lists, databases, etc. Data within a spreadsheet can then be quickly located.

The Workbook

A **workbook** is a single Excel file. Each new workbook contains one worksheet which is named as *Sheet1*. Worksheets are designed to display different data, eg a company might use a worksheet for each sales branch, then a final worksheet which totals all sales figures from each branch and displays a summary (eg the totals from each worksheet).

Sheet tabs are displayed at the bottom of the screen. You can move from worksheet to worksheet by clicking on a sheet tab, as shown below. (Additional sheets can be added by clicking on the New sheet button .)

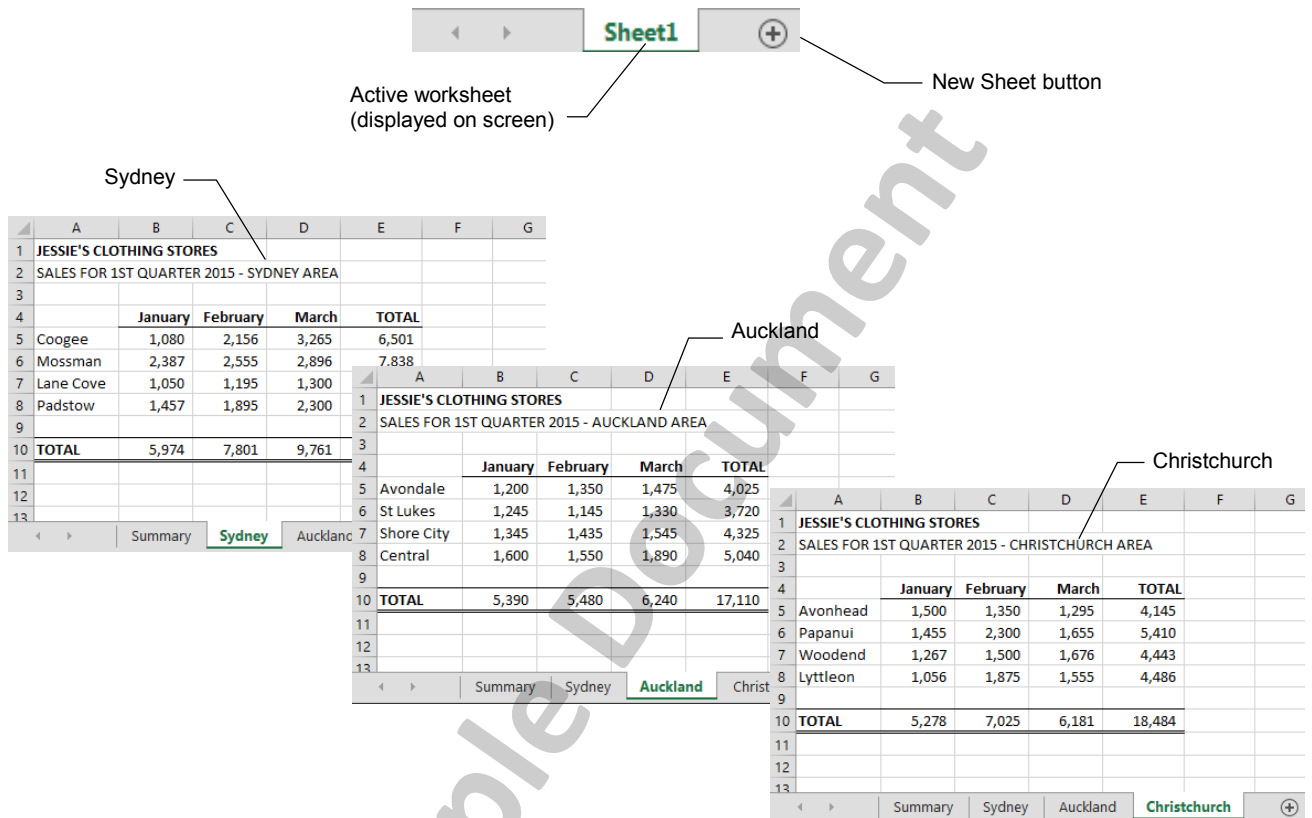


Diagram illustrating the structure of a workbook with multiple worksheets (Sydney, Auckland, Christchurch) and a Summary sheet. Each worksheet displays sales data for the first quarter of 2015, categorized by month (January, February, March) and total sales.

Sydney Worksheet Data:

	January	February	March	TOTAL
Coogee	1,080	2,156	3,265	6,501
Mossman	2,387	2,555	2,896	7,838
Lane Cove	1,050	1,195	1,300	
Padstow	1,457	1,895	2,300	
TOTAL	5,974	7,801	9,761	

Auckland Worksheet Data:

	January	February	March	TOTAL
Avondale	1,200	1,350	1,475	4,025
St Lukes	1,245	1,145	1,330	3,720
Shore City	1,345	1,435	1,545	4,325
Central	1,600	1,550	1,890	5,040
TOTAL	5,390	5,480	6,240	17,110

Christchurch Worksheet Data:

	January	February	March	TOTAL
Avonhead	1,500	1,350	1,295	4,145
Papanui	1,455	2,300	1,655	5,410
Woodend	1,267	1,500	1,676	4,443
Lyttle	1,056	1,875	1,555	4,486
TOTAL	5,278	7,025	6,181	18,484

The diagram also shows the sheet tabs at the bottom of the screen, labeled Sydney, Auckland, and Christchurch, with a '+' button to add a new sheet.

Each sheet tab can contain different areas/costings, etc within a workbook. A summary of the sheet tabs is often displayed on the first or last sheet tab.

	A	B	C	D	E	F	G
1	JESSIE'S CLOTHING STORES						
2	SALES FOR 1ST QUARTER 2015 - SUMMARY						
3							
4		January	February	March	TOTAL		
5	Sydney	5,974	7,801	9,761	23,536		
6	Auckland	5,390	5,480	6,240	17,110		
7	Christchurch	5,278	7,025	6,181	18,484		
8							
9	TOTAL	16,642	20,306	22,182	59,130		
10							
11							
12							
13							


Summary

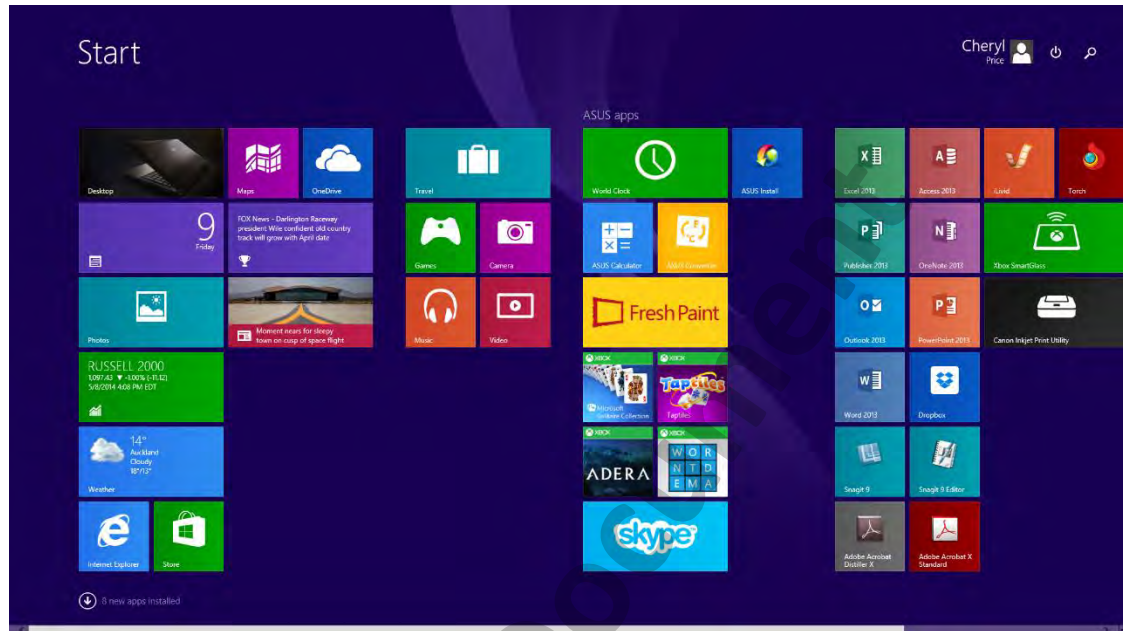
Summary Sydney Auckland Christchurch

Starting Excel 2013




EXERCISE 1

- 1 If the Start screen shown below is not displayed click on the Windows key  on your keyboard OR move your mouse pointer to the very bottom left of the window where the Start button shown at the right is displayed.



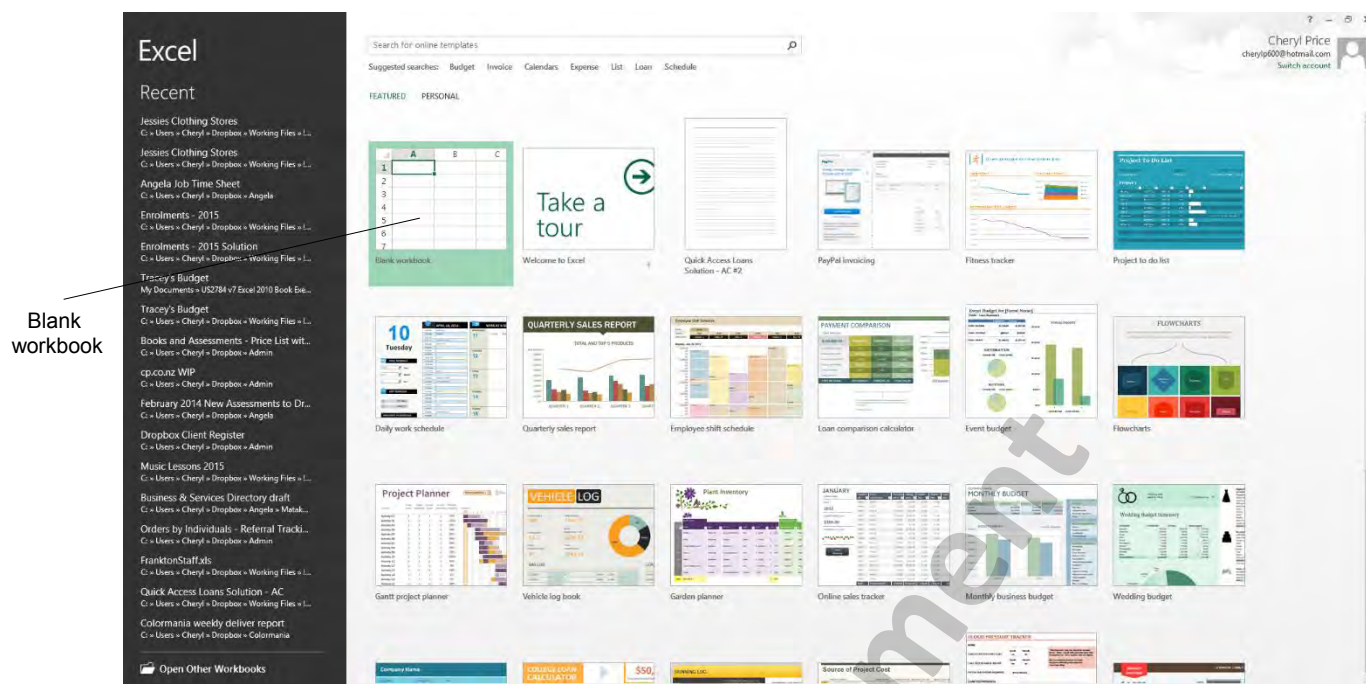
Click here to display the Start button

Click here to scroll across the screen

- 2 Click on  at the bottom right of the screen to scroll across and view further icons. (Yours will be slightly different and may have more, or less programs displayed.)

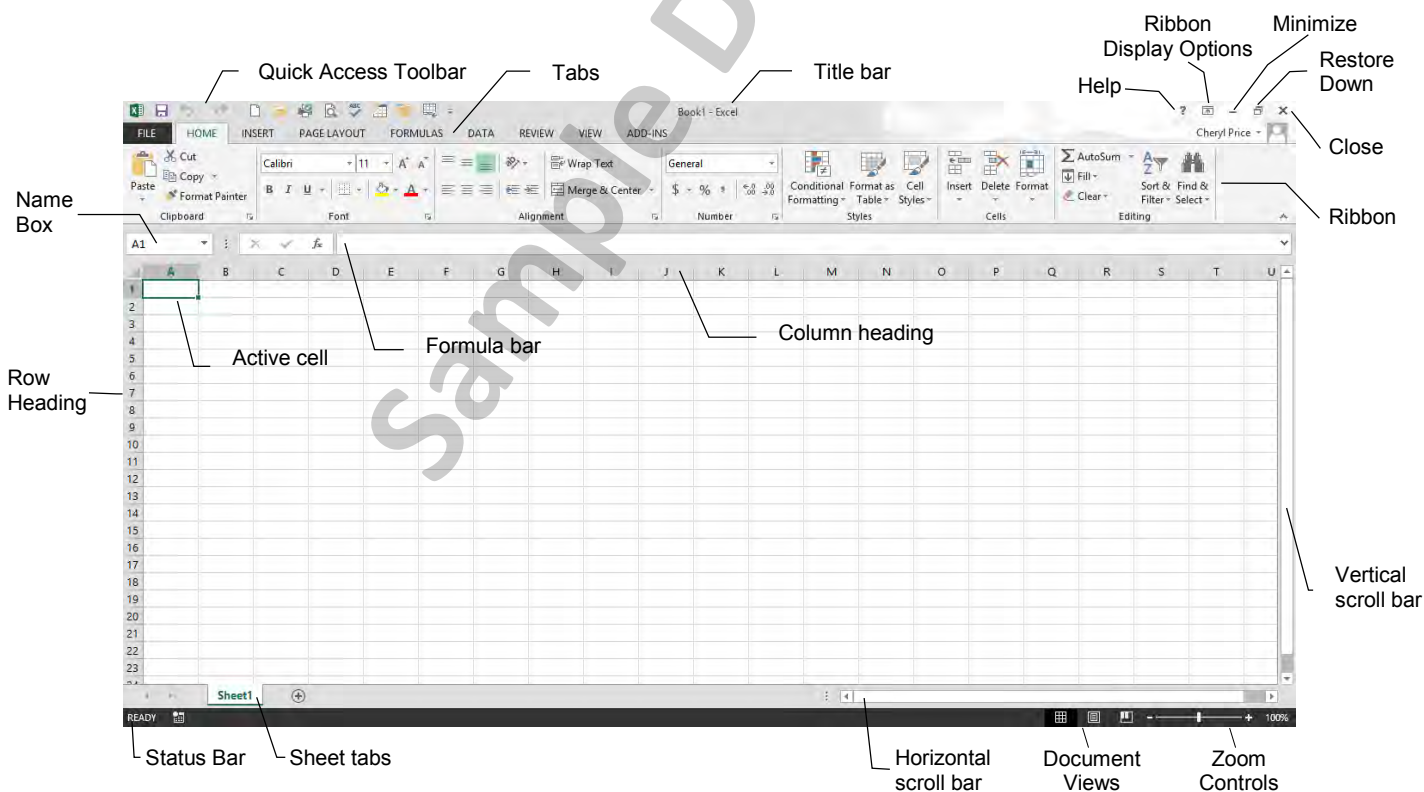
- 3 Click on the Excel 2013 program icon .

Microsoft Excel will open. If Excel 2013 has been used previously then Backstage View will be displayed as shown below. (Recent documents will be shown at the left.)



4 Click on Blank workbook as indicated above.

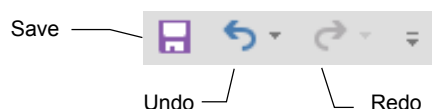
The Excel Screen



The **FILE** tab contains all basic tasks such as opening, saving and printing a spreadsheet.

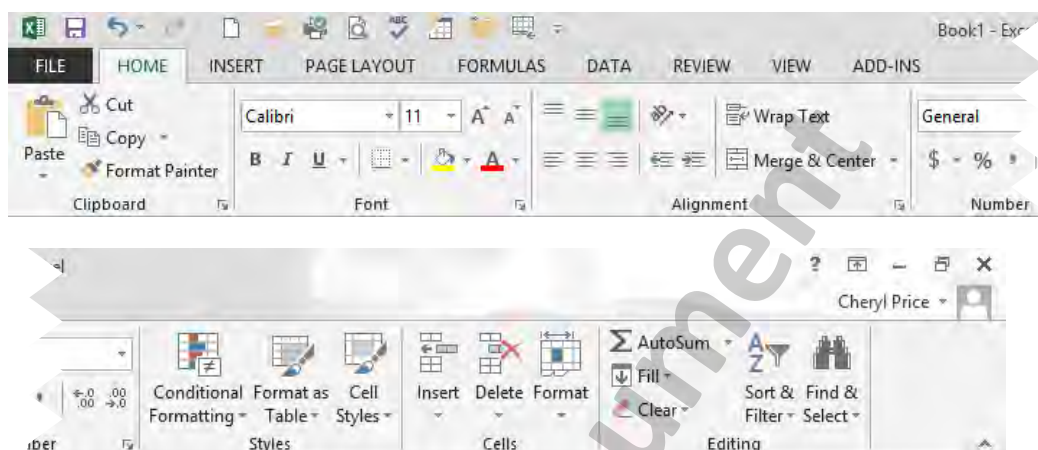
Quick Access Toolbar

The **Quick Access Toolbar** contains commands to Save, Undo and Redo. Frequently used commands can be added to this menu (and may have already been added).



The Ribbon

The **ribbon** provides access to all the tools required for working with a spreadsheet.



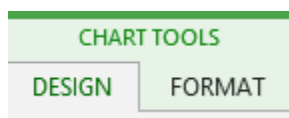
Tabs

Tabs are displayed above the ribbon. The **FILE** tab displays a menu but the other tabs are specific to the ribbon; click on the tab to display the ribbon required.

There are nine **default tabs**:



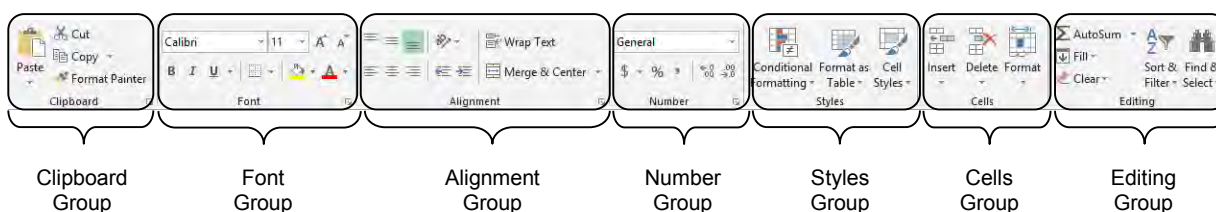
There are also hidden tabs that appear when appropriate, such as the Chart Tools. These are displayed, for example, when you are working on a chart and disappear again when you have finished.



Ribbon Groups

Ribbons are split into **ribbon groups**, (eg the Font Group).

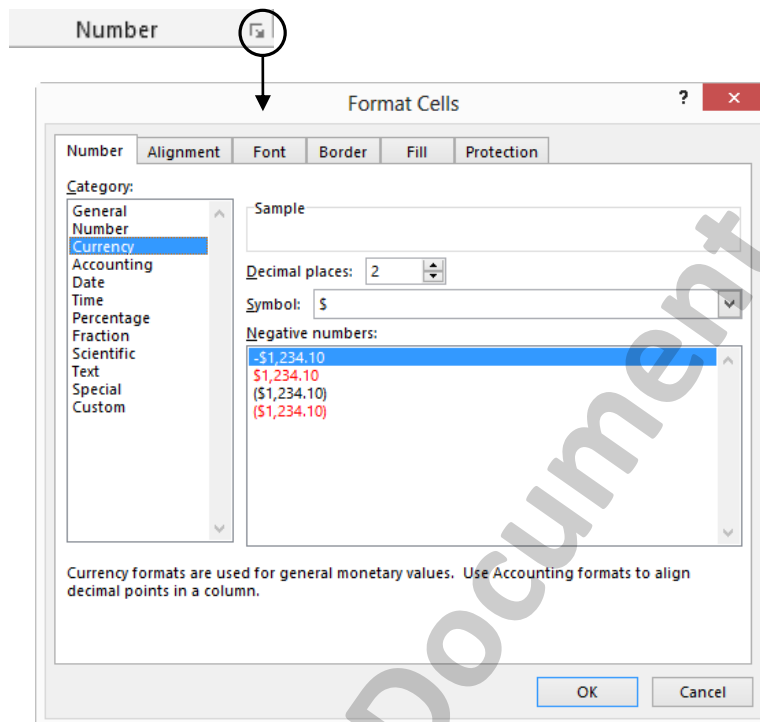
Each group contains command buttons appropriate to a particular action; the font **formatting** tools are located in the Font Group.



Dialog Box Launcher

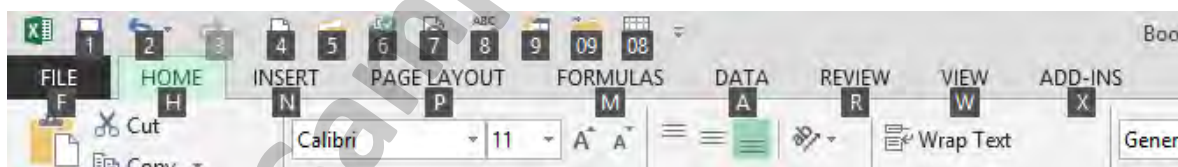
The **Dialog Box Launcher** is the small diagonal arrow in the bottom right corner of some groups. When you click on this button, it displays an associated dialog box.

A **dialog box** usually contains more settings or advanced features. For example, the Number dialog box allows you to make formatting changes to the contents of the current cell ie to change figures to two decimal places.



Key Tips

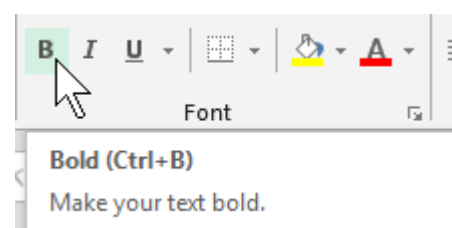
The keyboard can be used to select tabs on the ribbon and buttons on the Quick Access Toolbar. If you press Alt, **Key Tips** become active.



These small badges (ie Key Tips are labelled with various letters and numbers, that when pressed on the keyboard, will trigger the associated command or function). For example, to save the workbook press Alt and then 1.

ScreenTips

When you rest the **mouse pointer** over a button or command, a **screen tip** appears. This is a small window with a description of that command and any **shortcut key** it may have, eg Ctrl B is a quick way of applying the Bold command.



Opening a Workbook



EXERCISE 2

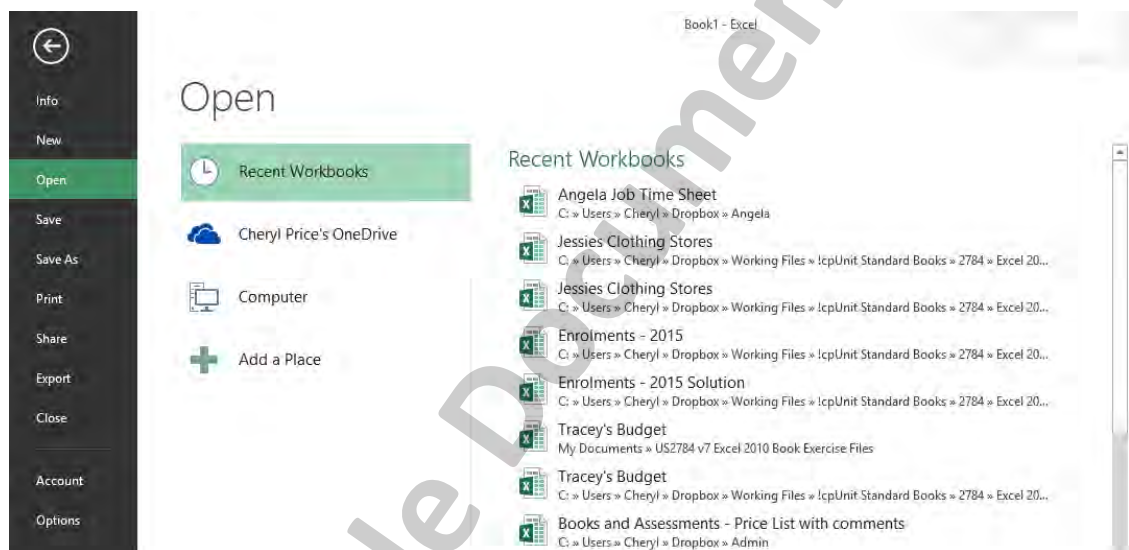
In this exercise you will open a workbook and look at cell contents which can include labels, values and formulas.

- 1 Click on the **FILE** tab at the far left of the ribbon.

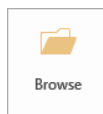
Backstage view will appear which allows you to create, open, print and save a workbook. Excel options, accessing help as well as exiting Excel are also available.

- Ctrl O
- 2 Click on **Open** to display the Open dialog box.

A list of Recent documents is displayed in Backstage view as shown below. (Your files will differ from mine.)



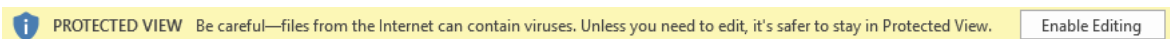
- 3 Click on **Computer**



- 4 Click on **Browse**
- 5 In your Documents Folder (under This PC), double click on the *US2784 v7 Excel 2013 Book Exercise Files* folder, ie **US2784 v7 Excel 2013 Book Exercise Files**
- 6 Double click on **Fashion House** or select Fashion House and click on **Open**.



If **Protected View** is turned on the following may appear.



Click on **Enable Editing**.

Cell Contents

Microsoft Excel allows you to enter data into any cell in a worksheet. Data may consist of text, numbers or a formula based on selected cells.

Various parts of a worksheet are shown below.

	A	B	C	D
1	The Fashion House - Conference Budget			
2				
3		Australia	America	Britain
4	Air Fares	897.00	1,586.95	2,425.28
5	Accommodation	1,200.00	1,800.50	2,000.00
6	Meals	950.00	1,060.96	1,250.25
7	Car Rental	660.50	501.23	680.25
8	Travel Insurance	80.00	100.00	95.00
9	Total	\$3,787.50	\$5,049.64	\$6,450.78

Labels

Values

Formula

Cell Reference (D3)

`=SUM(C4:C8)`

(ie adds the values in cells C4 to C8)

Cell Reference

The intersection of each column and row (ie where they meet) eg cell D3, is referred to as the **cell reference** and shows Britain in the spreadsheet above.

Labels

Text/numbers that are not used in a mathematical formula or equation are called **labels**. They help the reader understand different parts of a worksheet, ie **column headings**, **row headings**, **title** of a worksheet, etc.

Values

Values refer to data that is used to calculate results or the end result of a calculation.

Formulas

A **formula** is a mathematical equation using cell references to produce a result. The result of a formula is seen in the worksheet; clicking on a cell will display the formula itself in the **Formula bar**. A formula starts with = as shown below.

Formula bar



B	C	D
House - Conference Budget		
Australia	America	Britain
897.00	1 586.95	2 425.28

When values change, the result of the formula will be updated automatically in the worksheet.

In the following exercise you will add frequently used commands to the Quick Access Toolbar.



EXERCISE 3

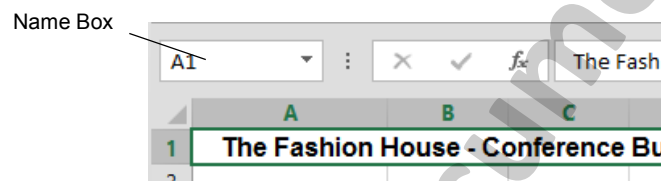
- 1 Click on the Customize Quick Access Toolbar .
- 2 Click on Open.
- 3 Repeat to add *New*, *Quick Print* and *Print Preview and Print* to the Quick Access Toolbar:
- 4 If the Quick Access Toolbar is displayed above the ribbon click again on the Customize Quick Access Toolbar  and select Show Below the ribbon.



EXERCISE 4

In the following exercise you will move to a specific cell in the worksheet using the **Name Box** (which currently displays the active cell) and display the data range.

- 1 Click in the Name Box at the top left of the worksheet.



- 2 Type: **C9**

- 3 Press Enter.

The cursor will move to cell C9 within the current worksheet.

The Formula bar displays the formula that has been used to calculate the total for the America column.

- 4 Double click on the selected cell (C9) to display the data range.

The data range displays cells that are included in the formula.

	A	B	C	D	E
1	The Fashion House - Conference Budget				
2					
3		Australia	America	Britain	
4	Air Fares	897.00	1,586.95	2,425.28	
5	Accommodation	1,200.00	1,800.50	2,000.00	
6	Meals	950.00	1,060.96	1,250.25	
7	Car Rental	660.50	501.23	680.25	
8	Travel Insurance	80.00	100.00	95.00	
9	Total	\$3,787.50	=SUM(C4:C8)		
10			SUM(number1, [number2], ...)		
11					

Data Range

- 5 Press Esc to turn off.

Ctrl W

- 6 Click on **FILE** and click on **Close**.

- 7 If asked to save changes click on Don't Save.

The formula used to add the total for the America column can be broken down as follows.

$$= \text{SUM}(\text{C4:C8})$$

Equal to Function Range

Equal to

= (equal to) is placed at the beginning of a *formula* (equation).

Function

A **function** is a built-in formula designed for ease of use. The SUM function will add together the contents of selected cells, ie cells C4 to C8.

Functions can perform tasks such as addition, calculating the average of a group of values, inserting the date, calculating angles, calculating the value of an investment over a period, etc.

Range

The term **range** refers to a group of cells containing values, C4:C8 (ie from cell C4 to cell C8). The range is used instead of typing =C4+C5+C6+C7+C8. The SUM function is used to add these cells together.



EXERCISE 5

- 1 In this exercise indicate in the boxes which is a label, a value and a formula.

	A	B	C	D	E	F
1	The Music Box					
2						
3		January	February	March	April	Total
4	Nelson	18,750	19,250	16,000	16,750	70,750
5	Douglas	12,580	11,500	11,250	12,750	48,080
6	Bayswater	15,800	16,200	17,750	15,200	64,950
7	Gisborne	19,750	18,250	19,000	17,750	74,750
8		66,880	65,200	64,000	62,450	258,530
9						

- 2 Which other cell contains a *label*?
- 3 Which other cell contains a *value*?
- 4 Which other cell contains a *formula*?
- 5 Which *range* of cells is used to total cell F8?
- 6 Complete the following sentence.

=SUM(C4:C8) is the used in cell F8. SUM is the that will add cells.....