

Produce spreadsheets (Excel 2016)

Supporting BSBITU304 Produce spreadsheets in the BSB Business Services Training Package.

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Revised for Excel 2016 by the Software Publications writing team

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BSBITU304 Produce spreadsheets

Application

This unit describes the skills and knowledge required to develop spreadsheets through the use of spreadsheet software.

It applies to individuals employed in a range of environments who tend to be personally responsible for designing and working with spreadsheets under minimal supervision.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Elements and Performance Criteria

Element <i>Elements describe the essential outcomes.</i>	Performance Criteria <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>	Page Reference
1. Select and prepare resources	1.1 Adhere to ergonomic, work organisation and occupational health and safety requirements	Software Publications WHS supplement
	1.2 Use energy and resource conservation techniques to minimise wastage	Software Publications WHS supplement
	1.3 Identify spreadsheet task requirements in relation to data entry, storage, output and presentation	34-37, 97–101, 123, 142
2. Plan spreadsheet design	2.1 ensure spreadsheet design suits purpose, audience and information requirements of task	Throughout workbook
	2.2 ensure spreadsheet design enhances readability and appearance, and meets organisational and task requirements for style and layout	11, 35-37
	2.3 Use style sheets and automatic functions to ensure consistency of design and layout	11-12, 36, 47-49, 73-74, 82, 105-107, 136, 154-157, 161, 181-185
3. Create spreadsheet	3.1 ensure data is entered, checked and amended to maintain consistency of design and layout, in accordance with organisational and task requirements	90-91, 93-94, 147-152
	3.2 Format spreadsheet using software functions to adjust page and cell layout to meet information requirements, in accordance with organisational style and presentation requirements	47, 68-69, 69-71, 73-74, 79-79, 89-89, 105-107, 162, 222-229
	3.3 ensure formulae are tested and used to confirm output meets task requirements, in consultation with appropriate personnel as required	Throughout workbook
	3.4 Use manuals, user documentation and online help to overcome problems with spreadsheet design and production	216

Element <i>Elements describe the essential outcomes.</i>	Performance Criteria <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>	Page Reference
4. Produce simple charts	4.1 Select chart type and design that enables valid representation of numerical data, and meets organisational and task requirements	166-170
	4.2 Create charts using appropriate data range in the spreadsheet	171, 174, 176, 178
	4.3 Modify chart type and layout using formatting features	172-178
5 Finalise spreadsheets	5.1 Preview, adjust and print spreadsheet and any accompanying charts, in accordance with task requirements	74, 107, 109-110, 128, 174
	5.2 ensure data input meets designated timelines and organisational requirements for speed and accuracy	15, 93, 123, 142, 195196
	5.3 Name and store spreadsheet in accordance with organisational requirements and exit the application without data loss/damage	60, 64, 129, 228

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description	Page reference
Reading	2.2, 3.1-3.4, 5.1	<ul style="list-style-type: none"> Recognises and interprets numerical and textual information to determine organisational and task requirements 	Throughout workbook
Writing	2.1, 3.1-3.3, 4.2, 4.3, 5.1-5.3	<ul style="list-style-type: none"> Inputs numerical and key reporting information when creating and finalising spreadsheets and uses format, layout, style guides and standard naming conventions to organise data according to purpose and audience 	Throughout workbook
Oral communication	3.3	<ul style="list-style-type: none"> Participates in exchange of information to determine whether formulae utilised produce result required 	97, 123, 142, 151, 196
Numeracy	4.1, 4.2	<ul style="list-style-type: none"> Uses mathematical equations to create simple formulae and validate numerical data 	Throughout workbook
Navigate the world of work	1.1-1.3, 2.1-2.3, 3.1-3.3, 4.1, 5.1-5.3	<ul style="list-style-type: none"> Recognises and follows explicit and implicit protocols and meets expectations associated with own role 	Throughout workbook and Software Publications WHS
Interact with others	3.3	<ul style="list-style-type: none"> Collaborates with others to achieve joint outcomes 	97, 123
Get the work done	2.1-2.3, 3.1-3.4, 4.1-4.3, 5.1-5.3	<ul style="list-style-type: none"> Uses advanced features within applications to address routine and complex work tasks 	Throughout workbook

Assessment for BSBITU304

This Unit is assessed by:

- observation task
- theory questions
- planning spreadsheets
- creating spreadsheets.

Assessment Requirements v1.0

Performance Evidence

Evidence of the ability to:	Workbook reference
<ul style="list-style-type: none">• design spreadsheets that address a range of data and organisational requirements	34-37
<ul style="list-style-type: none">• use software functions, graphics and support materials to create spreadsheets	Throughout workbook
<ul style="list-style-type: none">• apply knowledge of formatting requirements for workplace documents	11, 34-37

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:	Workbook reference
<ul style="list-style-type: none">• describe formatting requirements of workplace documents	11, 34-37
<ul style="list-style-type: none">• identify organisational guidelines on spreadsheet design and use	11, 34-37
<ul style="list-style-type: none">• explain organisational requirements for ergonomic standards, work periods and breaks, and conservation techniques	Software Publications WHS supplement

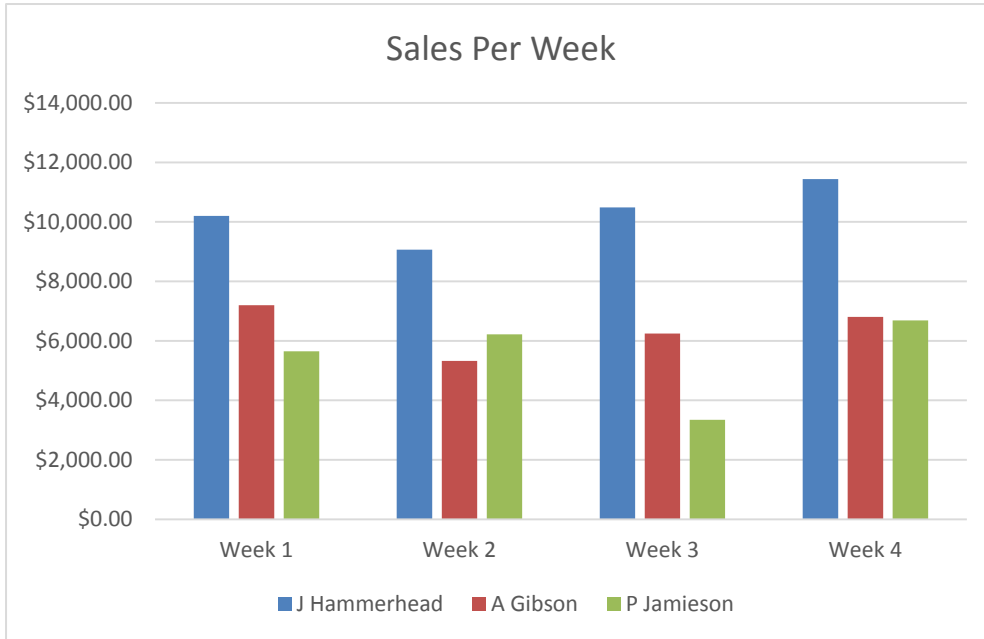
Examples of Charts

Charts can be generated automatically from data in spreadsheets and used to display results graphically.

Here are some examples of how charts can be used.

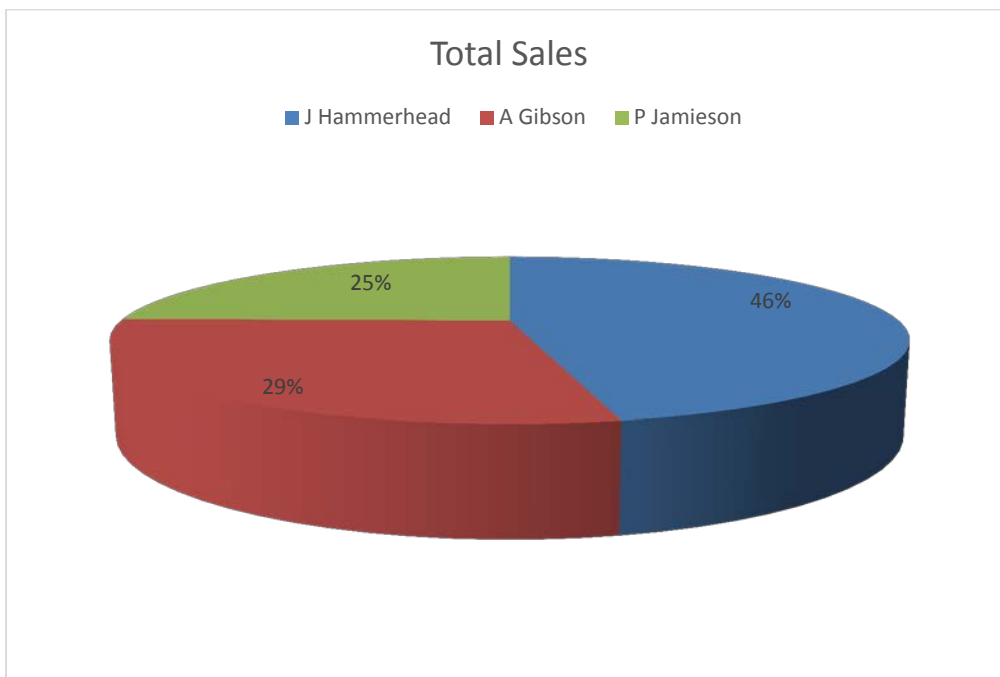
Column Charts

The Column chart below displays income data in vertical columns. The difference between each month can be seen at a glance.



Pie Charts

The pie chart below shows total sales for each salesperson. Labels have been added so that the reader can view the values. In this chart, a segment of the pie has been 'exploded' to highlight the highest Total Sales value.



Designing Spreadsheets

Before you start designing a spreadsheet, you must do your research so that you know exactly what you are designing and why. Whatever the purpose of your spreadsheet however, there are a few design constants.

A spreadsheet must be built so that it can be read and understood by other people. To achieve this, it usually has:

- a main heading
- a subheading
- column headings
- row headings
- totals.

	A	B	C	D	E
1	Hammerhead Advertising				
2	Income and Expenditure Report				
3					
4	Income	July	August	September	Total
5	Sales	\$25,400.00	\$36,478.00	\$26,794.00	\$88,672.00
6	Other	\$18,980.00	\$17,025.00	\$15,985.00	\$51,990.00
7	Total Income	\$44,380.00	\$53,503.00	\$42,779.00	\$140,662.00

Annotations: Main heading (row 1), Subheading (row 2), Column headings (row 4), Row headings (column 1), Totals (row 7).

Working with Formulas

Formulas are mathematical functions used to perform calculations in a spreadsheet.

An = (equal sign) is used in front of every formula. This is also a good way to tell the difference between formulas and entered values (numbers) in cells. All formulas must have the = sign in front of the mathematical equation for the application to calculate a result.

In the example below, the formulas for the above spreadsheet are displayed.

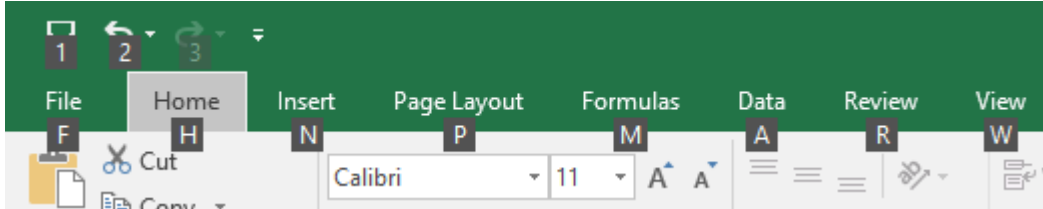
	A	B	C	D	E
1	Hammerhead Ad				
2	Income and Expendit				
3					
4	Income	July	August	September	Total
5	Sales	25400	36478	26794	=SUM(B5:D5)
6	Other	18980	17025	15985	=SUM(B6:D6)
7	Total Income	=SUM(B5:B6)	=SUM(C5:C6)	=SUM(D5:D6)	=SUM(B7:D7)

All of the formulas shown in this spreadsheet begin with =SUM. SUM is an example of a function, which is explained on the following page.

Badges

If you remember your access keys, you can simply type them. However, it is unlikely that you will remember them all, so there are Badges to help you find the access key you are looking for.

Press the Alt key to display the Badges. This gets you out of text entry mode and into command mode.



You can see, for example, that:

- If you want to go to the Insert tab you will press the N key next.
- If you want to format text to **Bold**, you will press Alt, then H to select the Home tab, and 1 to select bold. You can repeat those keystrokes to turn bold off (this is known as a toggle key – using the same buttons or keys to turn a command on and off).

Control your Display

ScreenTips

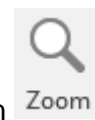
When you rest the mouse pointer over a button or command, you may see a small window that describes what that function does. It may also show the keyboard shortcut (the text shown in brackets) that can be used to apply that function.

Bold (Ctrl+B)
Make your text bold.

The screen tip itself can be turned off and you can elect not to show the keyboard shortcut.

Change Display Size with Zoom

To get a bigger or smaller view of the current spreadsheet use the Quick Zoom feature. It is located on the bottom right corner of the window. Click anywhere on the *Zoom Slider* to increase or decrease the Zoom level.



Zoom settings can be customised through the View tab using the Zoom button

Use Live Preview

When you run your cursor over a certain command on a tab and pause there a moment, in many cases that command is applied temporarily to your document so you can see what it will actually look like. This is called **Live Preview**. When you move your cursor away, the formatting returns to its previous look.

The Excel Screen Layout

The Home Tab

The Home tab is the default tab that displays whenever you first open an Excel spreadsheet. It has all the basic formatting and editing commands.

Exercise 3, Identify Commands on Home Tab










With your spreadsheet open, make sure you can find the commands in the following section.

Home Tab, Font Group



This group contains most of the buttons that you would use for **formatting** or changing the appearance of the text in a cell.


Excel 2016 has a wide range of fonts, font sizes, colours and other formatting tools to choose from, as well preset styles to help create professional looking documents.

BUTTON	COMMAND	KEYBOARD SHORTCUT (if available)
	Font Type and Size	CTRL + 1 (opens Format Cells dialog box)
	Font Colour	CTRL + 1 (opens Format Cells dialog box)
	Increase Font Size	(or Right Click – Format Cells – Font tab)
	Decrease Font Size	(or Right Click – Format Cells – Font tab)
	Bold	CTRL + B (or CTRL + 2)
	Italic	CTRL + I (or CTRL + 3)
	Underline	CTRL + U (or CTRL + 4)
	Borders	CTRL + Shift + & (Outline Border) CTRL + Shift + _ (Removes Outline Border)
	Fill Color	(or Right Click – Format Cells – Fill tab)

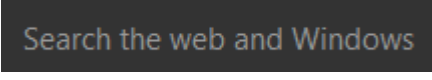
File Explorer

File Explorer is a file management application included in Windows 10 designed to help you manage your files, folders and drives.

Starting File Explorer

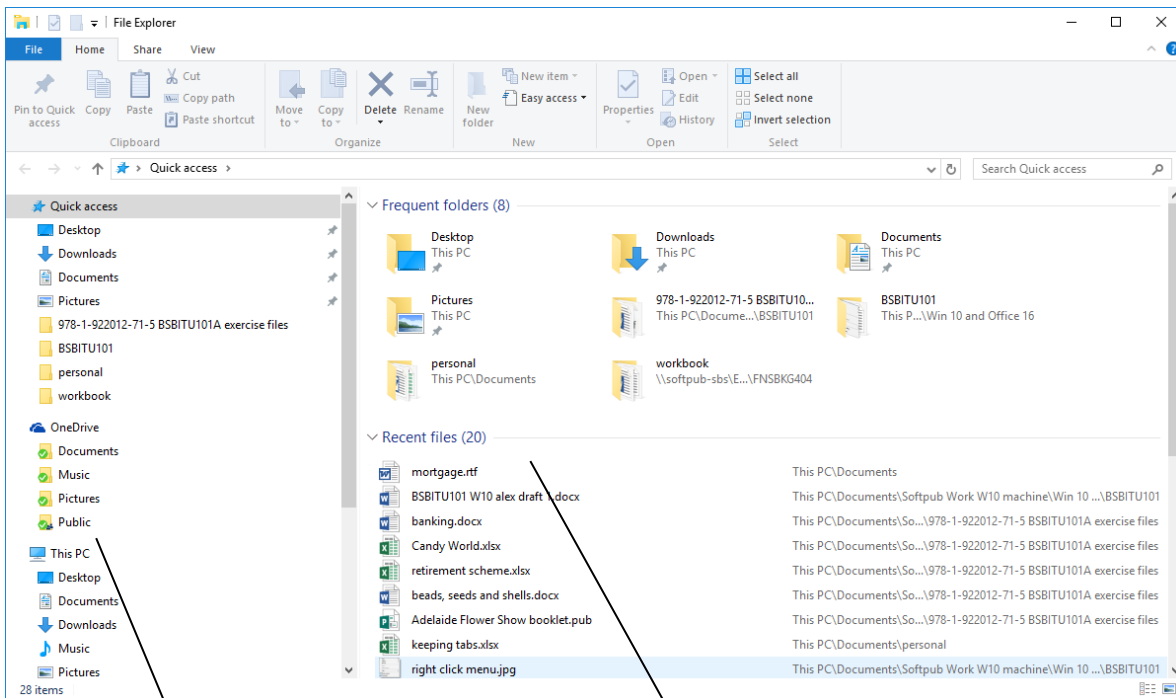
1. The File Explorer button  is usually pinned to the taskbar along the bottom of the desktop. Click on this once to launch the app.

OR

1. Click on  and type: File Explorer

2. Click on .

Drives and folders are displayed on the left (in the Navigation Pane) and folders and files on the right (in the Details Pane).



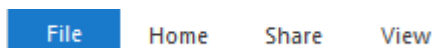
Navigation Pane

Details Pane

When File Explorer is first opened the Details Pane displays frequently accessed folders in the top half and recently opened files in the bottom half. Note that your computer may have been set up so a different folder is shown when File Explorer opens.

File Explorer Ribbon

The File Explorer window has a Ribbon at the top.



By default, the main part of the Ribbon is hidden; it drops down when you click on a tab. For example, clicking on the Home tab displays the Home Ribbon.

Basic Formulas and Functions

Common formulas and functions are included at the beginning of the following section. If you have learnt these previously and feel confident using them, you may wish to skip the first few exercises. We do however strongly recommend that you do Practical Activities 1 and 2, to test your knowledge before moving on.

The exercises that follow cover:

- AutoSum, Average, Minimum, Maximum
- Copy and paste formulas
- Wrap text in a cell
- Column Width
- Fill Command
- Basic operations (multiplication, subtraction and division) and Percentages
- Format Painter, Formatting and Styles
- Working with and checking GST calculations
- Print, Print Preview and Print Options
- Sorting Data
- Changing Margins, Orientation and Paper Size
- Print Sheet/View Options.

What is in a Formula

Formulas are split into parts and the following definitions and explanations will help you to better understand how to create a formula:



- A formula always starts with an = (equals sign).
- **Reference** is the name of the cell, for example B7.
- A **range** is a group or block of cells, shown with a colon in-between (A3:B5 is the range of all cells between cell A3 and B5) and the selected values in the range are shown in parentheses (brackets).
- An **argument** is the values in the range.
- A **constant** is the value entered in the formula, for example =B5 + 10, the number 10 does not change if you copy or move the formula, it remains constant.
- An **operator** helps to perform the calculation (+ add, – subtract, * multiply and / divide > greater than, < less than).
- A **function** is a predefined formula, for example, =sum adds selected values together.

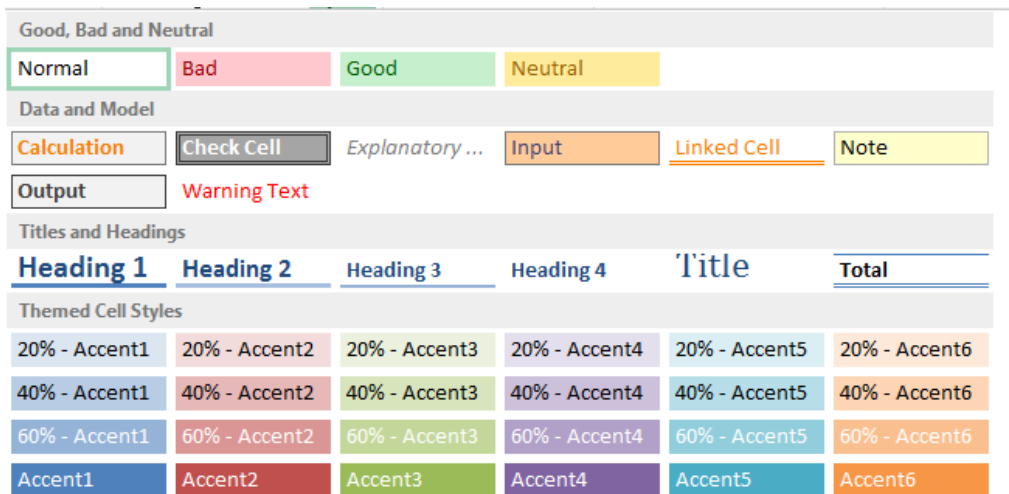
The Styles Group

In the Styles group on the Home tab, there are preset styles to help format a worksheet. Styles help to keep documents consistent. These can also be modified. For the purpose of this exercise, we will focus on Cell Styles only in this group.

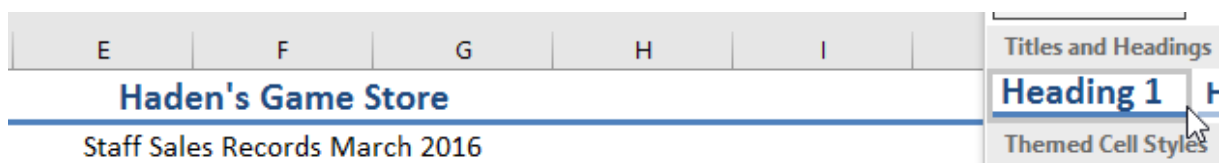


Exercise 29, Work with Styles

- Using **Haden's Game Store March Commission**, press CTRL + Home to go to cell A1.
- Select cells **A1:K1**
- From the **Home** tab, **Alignment** group, click the down arrow next to the **Merge & Centre** button  Merge & Center, and select **Merge & Centre**. The cells have been merged into a single cell and the heading has been centred.
- Select cells **A2:K2**. Press the Function key F4 to repeat Merge & Centre.
- Click in cell **A1**.
- Click the  down arrow next under the **Cell Styles** button to display the palette of styles.



- Position the mouse over Style **Heading 1**. **Live Preview** will display cell A1 in that style.

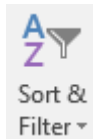


- Click on **Heading 1** to apply it to the cell and apply **Heading 2** to **A2**.

- Format all Column Headings in **Row 4** to **Heading 3**.

10. Apply the following formatting:

- Numbers in **Row 10** to **Good** Good (green shading)
- Column A** (names only) to **Accent1**.
- A10** to **Heading 4**.



- Select cells **A5:K8**. Click on the **Sort & Filter** button (**Editing** group) and select **Sort A to Z** to sort all the names and related data into ascending order. Hint: Be careful not to include the column heading or total row in the sort selection.

	PS4 Console	XBox	Nintendo 3DS	Games	Wii U	iPhone	Total Sales	Commission	Sales Less Comm.	GST
Haley	\$ 2,434.00	\$2,466.00	\$2,418.00	\$2,387.00	\$2,450.00	\$2,402.00	\$14,557.00	\$1,455.70	\$13,101.30	\$1,323.36
Jay	\$ 6,868.00	\$6,977.00	\$6,859.00	\$6,841.00	\$7,247.00	\$6,850.00	\$41,642.00	\$4,164.20	\$37,477.80	\$3,785.64
Mike	\$ 3,871.00	\$3,893.00	\$3,860.00	\$3,855.00	\$3,882.00	\$3,849.00	\$23,210.00	\$2,321.00	\$20,889.00	\$2,110.00
Sophie	\$ 2,997.00	\$3,034.00	\$2,979.00	\$2,941.00	\$3,016.00	\$2,959.00	\$17,926.00	\$1,792.60	\$16,133.40	\$1,629.64

- Save and leave the workbook open for the next exercise.

Preview and Print a File

Exercise 30, Print a File

The current worksheet will print over two pages, which is a waste of paper resources. A small adjustment to the Page Setup can ensure this file will print on one sheet of paper. This method does not always work with every spreadsheet as they vary in the number of **columns** and **column width**. Always check to ensure all values are printing clearly.

- Using **Haden's Game Store March Commission**, click on the File tab **FILE** and click on **Print**. The spreadsheet will be previewed in **Backstage View**.

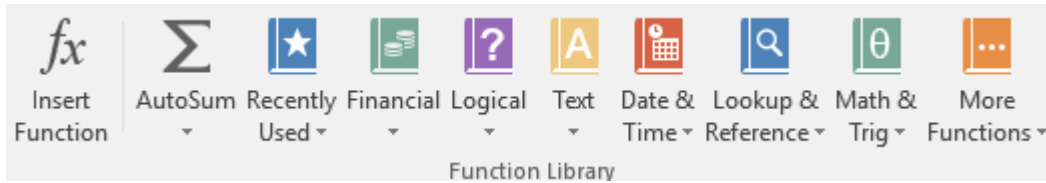
Haden's Game Store						
Staff Sales Records March 2016						
	PS4 Console	XBox	Nintendo 3DS	Games	Wii U	iPhone
Haley	\$ 2,434.00	\$2,466.00	\$2,418.00	\$2,387.00	\$2,450.00	\$2,402.00
Jay	\$ 6,868.00	\$6,977.00	\$6,859.00	\$6,841.00	\$7,247.00	\$6,850.00
Mike	\$ 3,871.00	\$3,893.00	\$3,860.00	\$3,855.00	\$3,882.00	\$3,849.00
Sophie	\$ 2,997.00	\$3,034.00	\$2,979.00	\$2,941.00	\$3,016.00	\$2,959.00
Total	\$ 16,170.00	\$16,370.00	\$16,116.00	\$16,024.00	\$16,595.00	\$16,060.00
Check GST	\$13,233.64	\$1,323.36	\$14,557.00			

- Click on below the preview to display the second page.
- Click on **Page Setup** to open the Page setup dialog box.
- Click the **Landscape** option button in the Orientation section to change paper direction. Then click on Fit to 1 page wide by 1 tall.

Fit to: page(s) wide by tall
- Click on the **Header/Footer** tab.
- Click **Custom Footer...** and type your name in the Left section **Learner's Name**.

Work with the Function Library Group

You will find the Function Library group on the Formulas tab.



This group offers quick and easy access to a range of predefined formulas. This saves time when entering more common/basic formulas into a spreadsheet.

The exercises that follow cover:

- More on Absolute References
- Date functions
- Calculating time.

More functions will be covered in later sections of this workbook.

Working with Dates

Date Function =Today()

When a date is typed into a cell the information will appear in the date format in which it is typed, but the information in the cell is actually stored as a number. This number is the number of days since 1 January 1900. For example, if 14/3/13 is typed into a cell it appears as 14/3/13, but the number in the cell is actually 41347. So when a date is entered into a spreadsheet cell it is a number that can be used in calculations. Some date functions include:

- =Today() inserts today's date
- =Now() inserts today's date and the current time. (This is especially useful if you need to enter the current date, especially in a template).
- =Month(Serial_Number) displays the month value; e.g. 29/07/2013 will display 7.

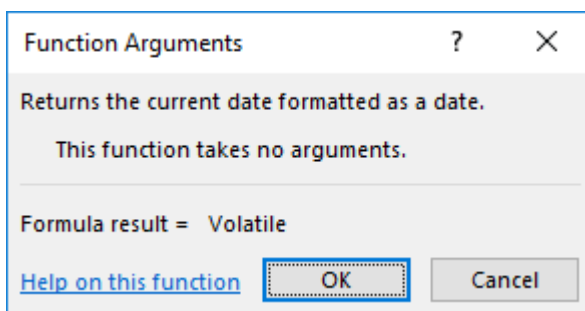
Exercise 36, Work with Functions in the Function Library Group – Dates

1. Create a new workbook (CTRL + N) and ensure you are in cell **A1**. Save the workbook as **Dates**.



Date &
Time ▾

2. On the **Formulas** tab, **Function Library** group, click on **Date & Time** and select **TODAY**. The Functions Arguments dialog box will display.



3. In the Function Arguments dialog box, click OK or press the **Enter** key to insert today's date.

8. Ensure the range includes all cells between **B12:B15**. The negative amount (with a minus (-) in front of the value, will be deducted from the range).
9. Insert the AutoSum function into cell **C19** to add the values between **B18:19**.
10. In Column **G**, calculate the total for the Current Liabilities =SUM(F7).
11. Click in cell **F14** and insert the AutoSum function to add **F12:F13** (this is the Owner's Equity before Drawings are deducted).
12. Select cell **G15** and use AutoSum to calculate **F14:F15**.
13. Click in cell **C21** and click on AutoSum. Ensure cell **C19** is automatically selected. Hold down the **CTRL** key and click on cell **C8** and cell **C15** `=SUM(C19,C8,C15)`.
14. Press **Enter**.

Note

The CTRL key allows you to select other cells in the range without you having to add a + sign in-between each value being added together.

15. Click in cell **G21** and total the two values in **G7** and **G15**. The two totals should balance (i.e. be the same amount).
16. Add a Top and Bottom Border (single lines only) to the two totals in Row **21**.
17. Change the Sheet tab to read **March 17**.
18. Check all the formulas.
19. Add your name, the Sheet name and a Page Number to the Footer.
20. Save, check, preview, print and close the workbook.

	A	B	C	D	E	F	G
1	Landscapes Limited						
2	Statement of Financial Position						
3	As at 31 March 2017						
4							
5	ASSETS				LIABILITIES		
6	Current Assets				Current Liabilities		
7	Bank Account	86200			Accounts Payable	600	600
8	Debtors	180	86380				
9							
10							
11	Fixed Assets				Owners Equity		
12	Buildings	3800			Capital	18000	
13	Equipment	19000			Net Profit	139740	
14	Less Acc. Depreciation	-3800				157740	
15	Furniture & Fittings	2000	21000		Less: Drawings	-38000	119740
16							
17	Long Term Asset						
18	Motor Vehicle	16200					
19	Less Acc. Depreciation	-3240	12960				
20							
21			120340				120340

Practical Activity 6



1. Open the supplied file **Hamilton Processing Plant** and save as **Hamilton Production Sheet**.
2. Calculate the formulas as shown below and widen any columns as needed:
 - **Total Cost:** Cost plus COGS (Cost of Goods Sold).
 - **RRP** (recommended retail price): Total Cost multiplied by 40% Mark-up added to the total cost. Use an Absolute Reference.

Note

The RRP needs to reflect the 40% Mark-up plus the Total cost amount in the RRP price. Write down the formula that you need here.

- **Expiry Date:** the Production Date plus Shelf Life. The Shelf Life must be an Absolute Reference so that the formula can be copied.
3. Total Columns **B**, **C** and **D**.
 4. Type: **Transport** in cell **C17** and **22%** in cell **D17**.
 5. Insert the following headings in Row 18 and format appropriately.

17			Transport	22%
18	Produced	Numbers	Production Cost	Transport Costs per Item

6. Copy and paste the Product list into cells **A19:A25** and enter the following numbers:

18	Produced	Numbers
19	Shreddies	200
20	Puffins	350
21	X-Bran	600
22	EasyOats	300
23	JelloMint	180
24	JelloChoc	180
25	Cornocakes	300

7. Calculate the Production Cost for each item (number of products *multiplied by* Total Cost per item).
8. Calculate the **Transport Cost per Item** (Multiply Production Cost by Transport percentage).
9. Use the Format Painter to format the currency results to the same style as the cells above, if required.
10. Use a calculator to check your answers.
11. Add your name, the date to the footer and the file name to the header.
12. Preview the worksheet and change the orientation to Landscape mode.
13. Centre the worksheet horizontally and vertically on the page.

14. Set gridlines to print and print the worksheet.

	A	B	C	D	E	F	G
1	Hamilton Processing Plant						
2	Production Sheet		24-Oct				
3							
4				Mark-up	40%	Shelf Life	300
5	Product	Cost	COGS	Total Cost	RRP	Production Date	Expiry Date
6	Shreddies	\$3.25	\$1.90	\$5.15	\$7.21	8-Nov-16	4-Sep-17
7	Puffins	\$2.85	\$1.10	\$3.95	\$5.53	9-Nov-16	5-Sep-17
8	X-Bran	\$4.58	\$1.30	\$5.88	\$8.23	10-Nov-16	6-Sep-17
9	EasyOats	\$3.68	\$0.85	\$4.53	\$6.34	11-Nov-16	7-Sep-17
10	JelloMint	\$4.87	\$2.10	\$6.97	\$9.76	12-Nov-16	8-Sep-17
11	JelloChoc	\$2.85	\$2.10	\$4.95	\$6.93	13-Nov-16	9-Sep-17
12	Cornocakes	\$4.28	\$1.90	\$6.18	\$8.65	14-Nov-16	10-Sep-17
13	Total	\$26.36	\$11.25	\$37.61			
14							
15							
16							
17			Transport	22%			
18	Produced	Numbers	Production Cost	Transport Costs per Item			
19	Shreddies	200	\$1,030.00	\$226.60			
20	Puffins	350	\$1,382.50	\$304.15			
21	X-Bran	600	\$3,528.00	\$776.16			
22	EasyOats	300	\$1,359.00	\$298.98			
23	JelloMint	180	\$1,254.60	\$276.01			
24	JelloChoc	180	\$891.00	\$196.02			
25	Cornocakes	300	\$1,854.00	\$407.88			

15. Check your formulas against those shown below (Transport Costs) and close the workbook.

	Produced	Numbers	Production Cost	Transport Costs per Item
19	Shreddies	200	=B19*D6	=C19*\$D\$17
20	Puffins	350	=B20*D7	=C20*\$D\$17
21	X-Bran	600	=B21*D8	=C21*\$D\$17
22	EasyOats	300	=B22*D9	=C22*\$D\$17
23	JelloMint	180	=B23*D10	=C23*\$D\$17
24	JelloChoc	180	=B24*D11	=C24*\$D\$17
25	Cornocakes	300	=B25*D12	=C25*\$D\$17

Logical Functions

If Function =IF()

There is a range of Logical Functions included in Excel. This includes the IF Function which uses 'conditional logic' to test one value against another, with the results being 'true' or 'false'.

The IF function tests if something is true, or false. If it is true, a result (either a number or text) appears in the cell and if it is not true (i.e. false), a different result appears in the cell.

For example, a store that is using a spreadsheet to evaluate stock levels can use the IF Function to remind the purchaser to order goods when stock reaches a specified level. The text 'Order' or 'No' is applied to make the result more meaningful than 'true' or 'false'.

=IF(C4<15,"Order","No")

	A	B	C	D	E	F
1	Staff Price List					
2						
3	Code	Description	Quantity	Cost Price	Stock Value	Order Stock
4	A1254	Black Picture Frame L	16	\$99.59	\$1,593.44	No
5	A1255	White Picture Frame L	9	\$99.59	\$896.31	Order
6	A1256	Red Picture Frame M	22	\$59.82	\$1,316.04	No
7	A1257	Blue Gallery Frame L	35	\$120.00	\$4,200.00	No
8	A1258	Black Gallery Frame M	8	\$90.25	\$722.00	Order
9	A1259	Red Gallery Frame S	12	\$70.25	\$843.00	Order

Examine the formula above.

IF (Quantity in cell C4 is less than 15, **then** "Order", otherwise "No").

The IF function uses three parts (Logical test of a cell contents, result if True, result if False):

Logical test: the value in cell C4 is being tested to see if the stock quantity is less than 15.

True result: "Order"

False result: "No" (text is always entered in a formula with double inverted commas "")

When the value in cell C4 is less than 15, C4<15 is true. When it is greater than 15 it is false.

Insert Function Feature (Using the Function Wizard)

This is a built-in feature to help you insert the correct formula and arguments into a



worksheet. The Function Wizard may be accessed two ways: via the **Logical** button on the Formula Tab or via the Insert Function button f_x on the Formula Bar.

Exercise 74, =IF Function

The IF Function will be used to calculate the tax rates. Salaries **less than or equal to \$35000** will be **19%**, otherwise **35%**.

1. Open the supplied file **Tax Rates** and save as **Staff Tax Rates**.
2. Click in cell **D5**.