Microsoft Excel 2013 Introduction

Course objectives:

- Design and create a spreadsheet using:
  Labels, Values and Formulas
- Format a spreadsheet
- Present data in charts
- Manage output

Staff Training (Bookings only)

Phone   (07) 3365 2666
Email   staffdev@uq.edu.au
Web   http://www.uq.edu.au/staffdevelopment

Staff may contact their trainer with enquiries and feedback related to training content.

Please contact Staff Development for booking enquiries or your local I.T. Support for general technical enquiries.

Student Training and Support

Phone   (07) 3365 8811 or 1300 738 082
Email   help@askit.uq.edu.au
Web   http://www.library.uq.edu.au/ask-it/

UQ Students may contact the Library's Ask I.T. team for I.T. support related to the Library and their studies.

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Getting Started with Excel

Exercise 1.	*Create a New Workbook*

1. Double click on the **Excel** icon to start your spreadsheet session.

Screen Overview
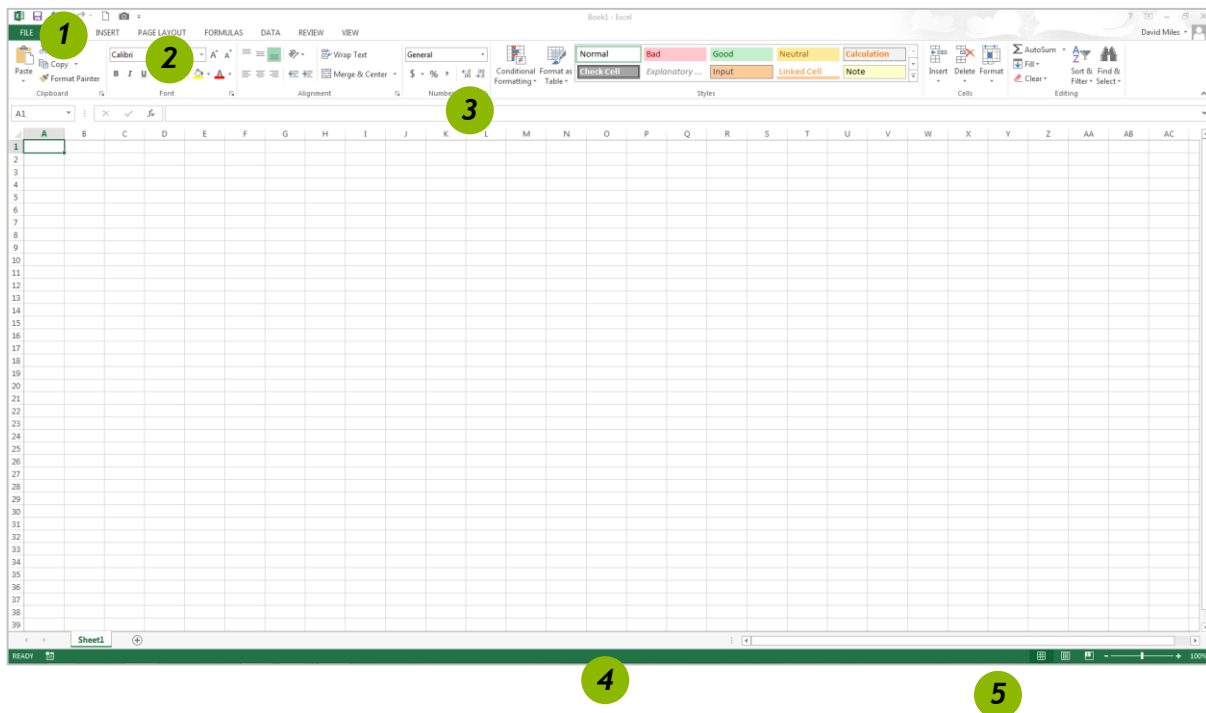
1	**File Tab**	Provides access to the **Backstage View** and the program control centre.
2	**Quick Access Bar**	Always visible and provides access to frequently used tools.
3	**Ribbon**	Offers a visual reference to all tools available in Excel. Can be minimised when not actively in use.
4	**Status Bar**	Excel offers a customisable status bar which shows functions in highlight
5	**Worksheet Views**	Allows the user to change views via buttons and magnification options via slider.

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Labels, Values and Formulas

Labels = Text
Values = Numbers
Formulas = Calculations (A **formula** always begins with an equal sign, **'='**)

Exercise 2.	*Adding data to a worksheet*

Step 1 – Adding labels

	A	B	C	D	E	F
1		Board Games	Dolls & Prams	Computer Games	Lego	Totals
2	Brisbane					
3	Adelaide					
4	Sydney					
5	Melbourne					
6	Toowoomba					
7	Totals					
8						
9						

Step 2 – Adding values

	A	B	C	D	E	F	G
1		Board Games	Dolls & Prams	Computer Games	Lego	Totals	
2	Brisbane	1000	2000	1500	2500		
3	Adelaide	1500	2100	3000	2600		
4	Sydney	2000	2200	4500	2700		
5	Melbourne	2500	2300	6000	2800		
6	Toowoomba	3000	2400	7500	2900		
7	Totals						
8							

Exercise 3.	*Adding Formulas to a worksheet*

Step 3 – Adding formulas

You can use cell references in formulas to calculate results in a number of ways:

	A	B	C	D	E	F
1		Board Games	Dolls & Prams	Computer Games	Lego	Totals
2	Brisbane	1000	2000	1500	2500	=B2+C2+D2+E2
3	Adelaide	1500	2100	3000	2600	=SUM(B3,C3,D3,E3)
4	Sydney	2000	2200	4500	2700	=SUM(B4:E4)
5	Melbourne	2500	2300	6000	2800	
6	Toowoomba	3000	2400	7500	2900	
7	Totals	=SUM(B2:B6)				
8						
9						

Notes

Autofill

You can use the **AutoFill** tool to fill data into worksheet cells. You can also have Excel automatically continue a series of numbers, number and text combinations, dates, or time periods, based on a pattern that you establish.

Exercise 4.		Autofill

1. Enter formula using **Autosum** in cell **B7**

2. Move to bottom right hand corner to display 'Autofill' mouse pointer. '✚'

3. Drag across cells **(C7:E7)**

|	A	B	C	D	E	F
1		Board Games	Dolls & Prams	Computer Games	Lego	Totals
2	Brisbane	1000	2000	1500	2500	7000
3	Adelaide	1500	2100	3000	2600	9200
4	Sydney	2000	2200	4500	2700	11400
5	Melbourne	2500	2300	6000	2800	
6	Toowoomba	3000	2400	7500	2900	
7	Totals	10000				
8						
9						

Exercise 5.	Create a custom Autofill list

1. Select cells **A2:A6**

2. Click on **File** Tab

3. Select **Options**

4. Select **Advanced** from left panel

5. Go to **General** section

6. Click on **Edit Custom Lists…** button
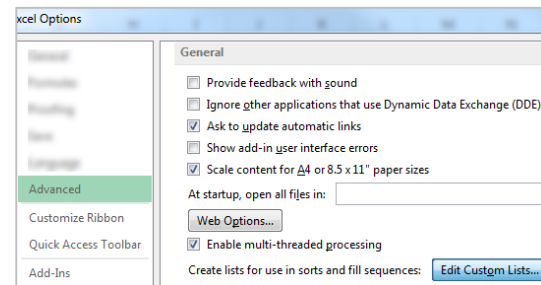
7. Check range defined is **$A$2:$A$6**

8. Click on **Import**

List entries will be displayed.

9. Click on **OK**
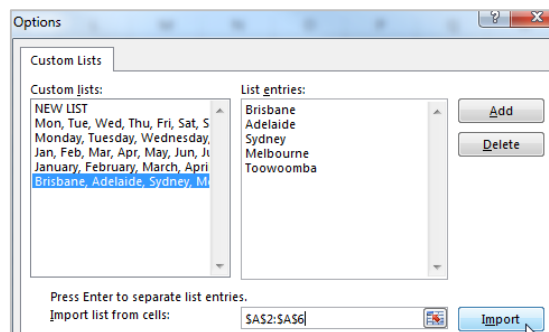
10. Go to any cell

11. Enter any data item from list

12. Drag Autofill pointer to fill custom list

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Cell References

Relative References

Excel adjusts the cell references and copies a formula **relative** to the answer cell.
By default cell references are relative cell references *unless you specify otherwise.*

Absolute References

There will be times when you want to compare a range of values to a specific cell. Absolute cell references are denoted with $ preceding each col/row reference. i.e. **$F$4**

Exercise 6.	*Using Absolute cell references*

We want to find out what percentage each stores' sales were from the total sales.
We need to consider **absolute** references in our formula to specify a value in a fixed location to be used in calculations completed by Autofill.

1. Enter heading "**% of Total Sales**" in column G

2. Enter the formula **=F2/F7** in cell **G2**

3. Click the **%** button in the **Number** group

4. **Autofill** down to cell **G7**

E	F	G
Lego	Totals	% of Totals
2500	7000	=F2/F7
2600	9200	
2700	11400	
2800	13600	
2900	15800	
13500	57000	

Lego	Totals	% of Totals
2500	7000	0.122807
2600	9200	=F3/F8
2700	11400	#DIV/0!
2800	13600	#DIV/0!
2900	15800	#DIV/0!
13500	57000	

These are relative cell references and may give unexpected results when we use **Autofill**. To ensure we always refer to the 'total sales' figure in our calculations this cell has to be an **absolute** reference

1. Go to cell **G2**

2. Click the **F7** reference in formula

3. Press the function key **F4** to change the reference to **Absolute; $F$7**

4. Autofill down

E	F	G
Lego	Totals	% of Totals
2500	7000	=F2/$F$7
2600	9200	
2700	11400	
2800	13600	
2900	15800	
13500	57000	

Using absolute cell references means this formula can be duplicated accurately.

The formulas could be entered manually in each cell but Autofill will save time and provide consistent results.

G		G
% of Totals		% of Totals
=F2/$F$7	0	12%
=F3/$F$7	0	16%
=F4/$F$7	0	20%
=F5/$F$7	0	24%
=F6/$F$7	0	28%

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Functions

A *function* is a *predefined formula* that performs a particular type of computation. All you have to do to use a function is supply the values that the function uses when performing its calculations - these are the *arguments of the function*.

Exercise 7.	*Using functions in formulas*

Using the **Average** function from **Autosum** button

1. Go to cell **A9**

2. Add cell labels

   Average, Maximum, Minimum

3. Go to cell *B9*

4. Click the **Arrow** alongside the **Autosum** button on Home tab

5. Select '**Average**'

6. Confirm the range is correct

7. Press **Enter**
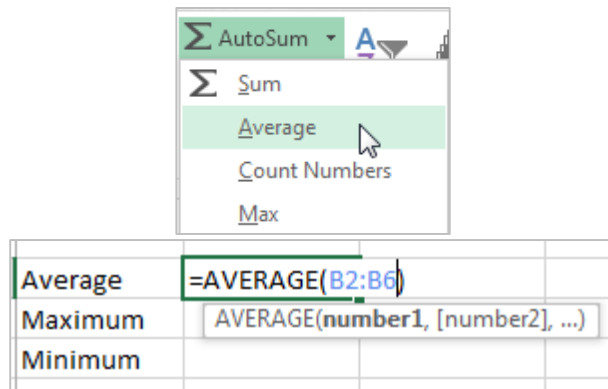
Using the **Maximum** function on the **formula bar**

1. Go to cell **B10**

2. Click the **Fx** button on the formula bar

3. In the **Insert Function** dialogue box, click on the '**MAX**' function

4. Click **OK**

5. Indicate the range for the maximum value

6. Click on **OK**
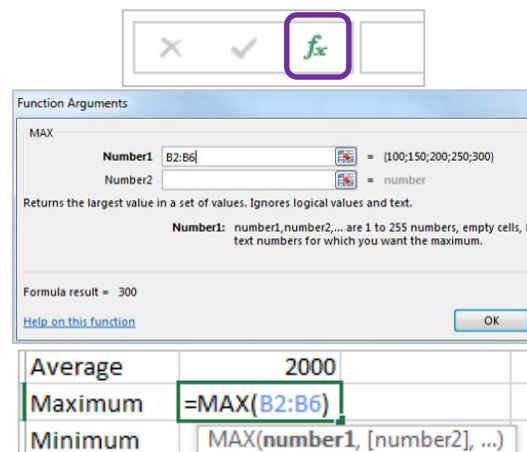
Using the **Minimum** function from **Ribbon**

1. Go to cell **B11**

2. Click on **Formula** tab on the ribbon

3. Click the **More Functions** command button

4. Hover mouse over **Statistical**

5. Click on **MIN** function

6. Type in the range **B2:B6**

7. Click on **OK**

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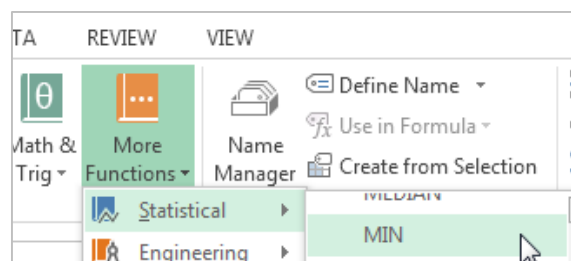
Autofill Formulas

1. Select cells A9:A12

2. Click and drag **Autofill** tool to **Column E**

| Average | 2000 |
| Maximum | 3000 |
| Minimum | 1000 |

Formatting Cells

The presentation of information can be adjusted by using the ribbon to format individually selected elements or by applying a theme to a whole worksheet.

| Exercise 8. | *Manually formatting cells* |

NUMBER formats

1. Select the cell or range of cells you want to change: **B2:F11**

2. Go to the **Number** group on the Ribbon

3. Click the **Arrow** alongside General in the **number** group

4. Click on a number format to apply.
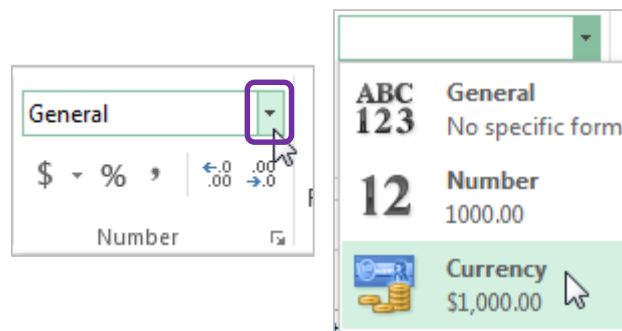
CHARACTER Formats

1. Select the cell or range of cells you want to change: **A2:F11**

2. Go to the **Font** group in the Ribbon

3. Click the **Text Colour** button

4. To apply a format, click once on your chosen option
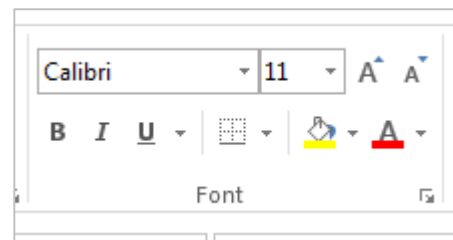
DATE Formats

Format a date to display the day it represents.

1. Enter your birth date into a cell

This will show the default format dd/mm/yyyy

2. Select this cell

3. Click on the **Number** group dialogue box launcher on the **Home** tab

4. Select the **custom** option

5. Enter the format '**dddd**'

This will present your date as a day, however, the date is still stored in the dd/mm/yyyy format.

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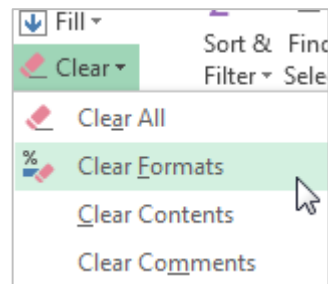AUSTRALIA

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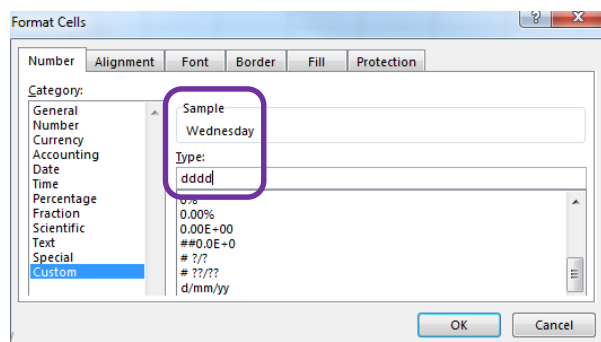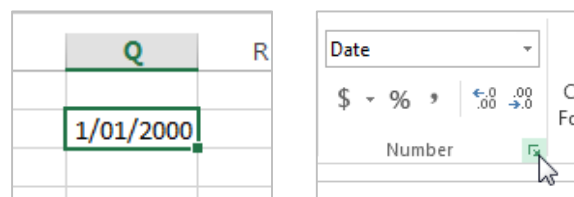
Exercise 9. *Remove formatting*
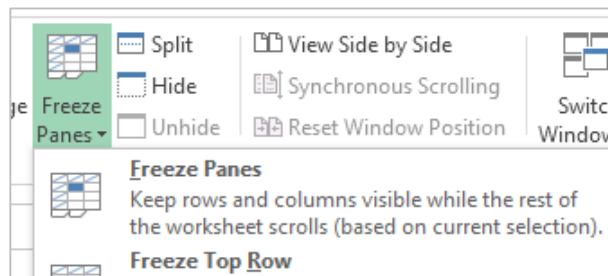
To return data to the original formats

1. Go to the **Home** tab
2. Go to the **Editing** group
3. Click on **Clear**
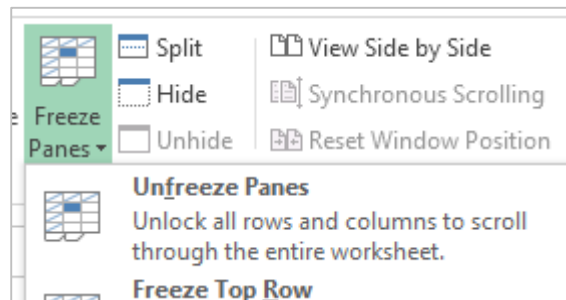4. Select **'Clear Formats'**

Exercise 10. *Freeze panes*

1. Go to the **View** tab,
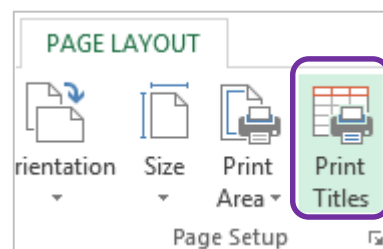2. Click the arrow beside **Freeze Panes**
3. Click **Freeze Panes**

Exercise 11. *Unfreeze panes*

1. Go to the **View** tab,
2. Click the arrow beside **Freeze Panes** button
3. Click **Unfreeze Panes**

Exercise 12. *Repeat headings for printing*

1. Go to the **Page Layout** tab
2. Click **Print Titles** button

OR

- Click the Page Setup **dialogue box launcher** button

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3. Enter rows to repeat at top **$1:$1**

4. Click on **OK**

These rows will be printed at the top of each page. You can also do the same for columns using the **Columns to repeat at left:** option and select a column.
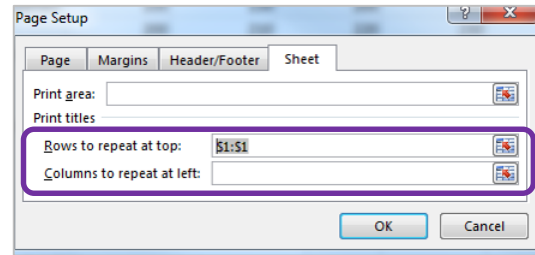
Cell Comments

You may want to provide additional information about cell content. You can do this by adding a comment which is hidden from view until selected.
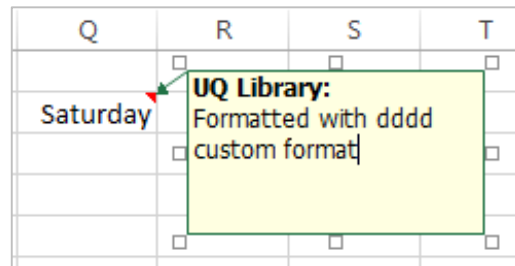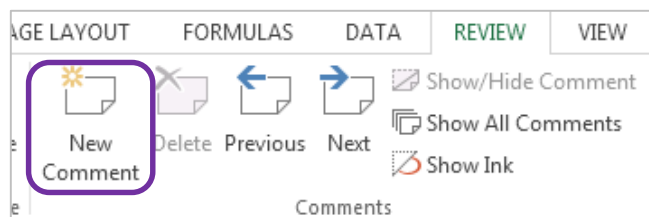
Exercise 13.	*Adding a cell Comment*

Add a comment

1. Select cell **Q2**

2. Click on the **Review** tab

3. Click **New Comment**

4. Type a comment such as

5. "**Formatted with dddd custom format**"

The comment will be displayed as a small red triangle in the cell. Hover the mouse over the cell and the comment will pop up.

To keep a comment visible, you can select the cell that contains the comment and then click **Show/Hide Comment** in the Comments group on the **Review** tab. To display all comments with their cells on the worksheet, click **Show All Comments.**
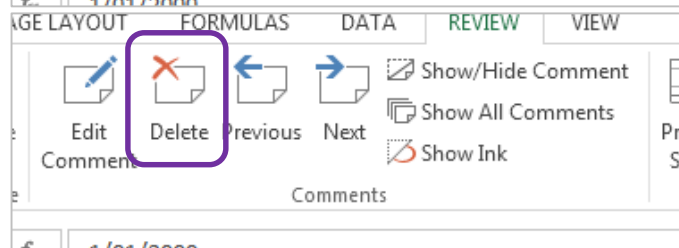
Edit a comment

1. Click the **Review** tab

2. Click **Edit Comment**
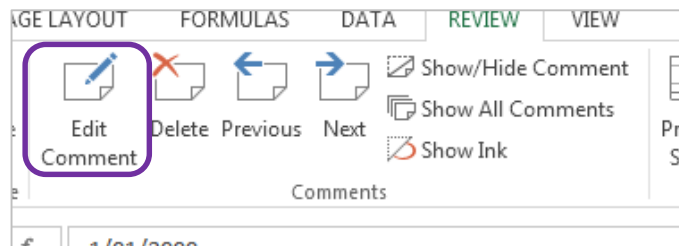
Delete a comment

1. Click the **Review** tab

2. Click **Delete**

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Moving and Copying Data

- When you **move** a formula, the cell references within the formula do not change no matter what type of cell reference that you use. The formula will still refer to the original cell(s).
- When you **copy** a formula, the cell references may change based on the type of cell reference that you use. They will try to recalculate based on the relative references in the formula.

Exercise 14.	Rename, move or copy a worksheet

1. Go to the **Home** tab

2. In the **Cells** group, click **Format**

3. Under **Organize Sheets**, click **Move** or **Copy** Sheet

OR

- Right click on sheet tab
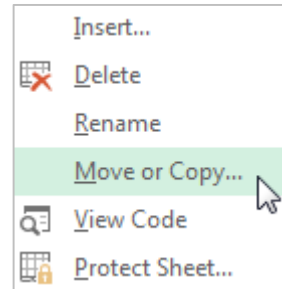
4. Select (**new book)**

5. Check **Create a copy box**

6. Click on **OK**

To book; allows you to choose the workbook the sheet should move to. Open the destination workbook to see it in the drop-down list.

Before sheet; allows you to indicate where the selected sheet should be placed in the new location.

Create a copy; allows you to copy the worksheet rather than move.
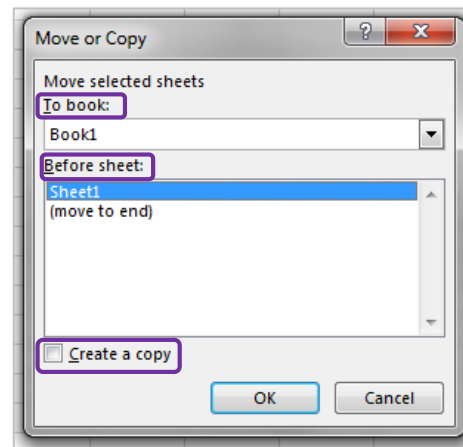
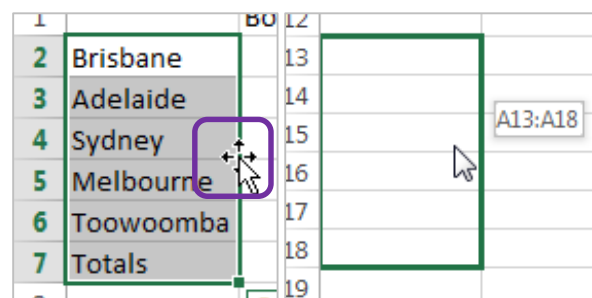| Exercise 15.	Move data

Move a cell or range of cells

1. Select the cells to move: **A2:A7**

2. On the **Home** tab, click Cut

3. Go to destination cell; **A20**

4. Click **Paste**

OR

- Drag the border of the selection to another location with the mouse.

You can only drag the selection on the same worksheet

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Exercise 16. *Re-order rows or columns*

1. Select **Column D**

2. Hold **Shift** key

3. Drag the border of the selection to the left edge of **Column C**

A green line will appear to indicate new column position.

4. Release mouse and then release **Shift** key

Columns will be re-ordered. This technique can also be applied to rows and selected cell ranges.

B	C	D	
Board Games	Dolls	Computer Games	L
100	200	150	
150	210	300	

B	C	D	
Board Games	Computer Games	Dolls	L
100	150	200	
150	300	210	

Exercise 17. *Transpose data*

1. Select cells **A1:G11**

2. Copy cells

3. Go to cell **L1**

4. Click **Arrow** below the **Paste** button

5. Select **Paste Special…**
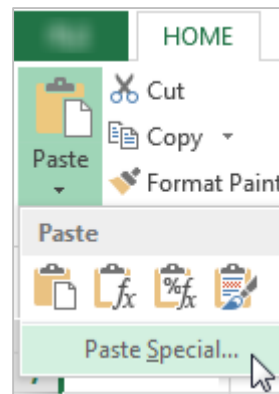
6. Check **Transpose** box

7. Click on **OK**
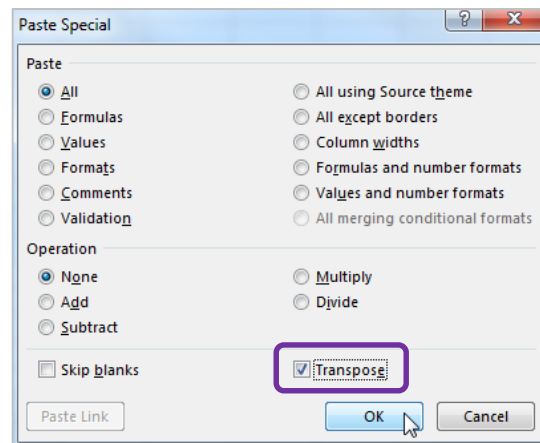
8. Select columns **L to V**

9. Adjust column widths to **12.00 characters**

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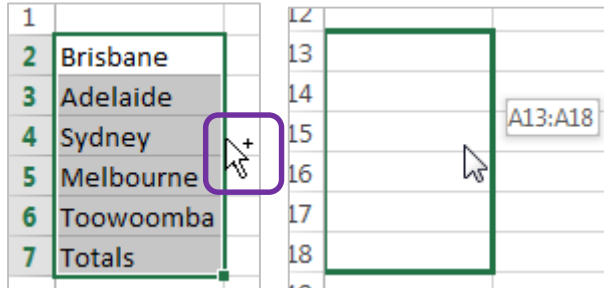*Your partner in scholarship*

Exercise 18.   *Copy data*

Copy a cell or range of cells

1. Select the cells to copy: **A20:A26**

2. On the **Home** tab, click **Copy**

3. Go to destination cell; **A2**

4. On the **Home** tab, click **Paste**

OR

- Hold CTRL key

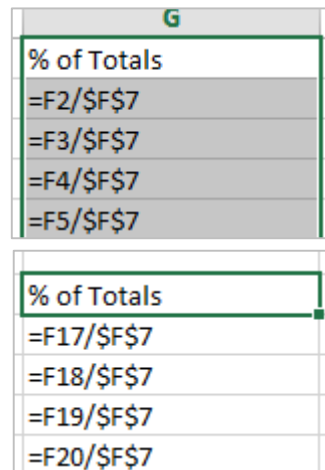- Drag the border of the selection to another location with the mouse.

You can only drag the selection on the same worksheet

Exercise 19.   *Copy formulas*

Copy a cell or range of cells containing formulas

1. Select the cells to copy: **G2:G7**

2. On the **Home** tab, click **Copy**

3. Go to destination cell; **F20**
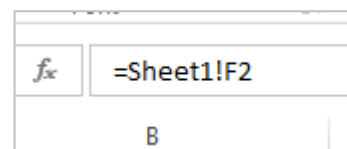
4. On the **Home** tab, click **Paste**

With relative cell references the destination of the pasted formulas is important.

Exercise 20.   *Create a dynamic link*

1. Go to **Sheet 3**

2. Click in cell **B2**

3. Type **=**

4. Go to **Sheet 1**

5. Click on the cell you want to link to: **F2**

6. Press **Enter**

Check the formula bar for the cell content. The link to another sheet is referred to by =**TabName!CellReference**
The syntax for a link to an **external** workbook would be **=[Filename]SheetTabName!CellReference**
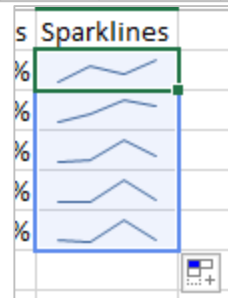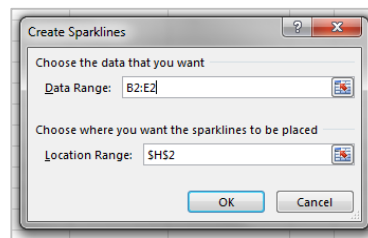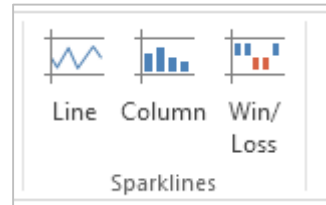
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Sparklines

Sparklines are mini cell charts that help visualise table data.

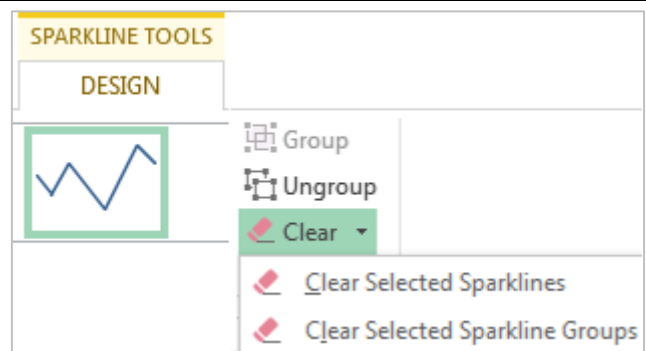| Exercise 21.	*Insert Sparklines*

1. Select the cell **H2**

2. Click on the **Insert** Tab

3. Click **Line** in **Sparklines** group

4. Select the range to be analysed, **B2:E2**

5. Click on **OK**

6. Autofill the Sparklines down to fill in other cells

Exercise 22.	*Delete Sparklines*

1. Select a Sparklines cell

2. Go to **Design** tab on **Sparkline Tools** ribbon

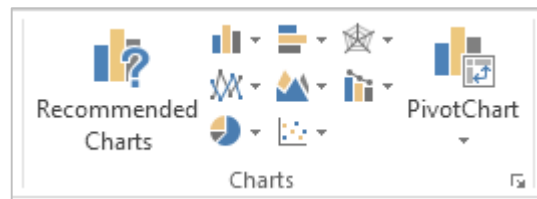3. Click on **Clear** button

4. Select **Clear Selected Sparklines**

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Charting

Exercise 23.	*Create a chart*

1. Select the cells you wish to chart:
   A1:E6

2. Click on the **Insert** Tab

3. Select a chart type

To quickly create a default chart, **select the data** that you want to use for the chart, then press **ALT+F1** – this displays the chart as an embedded chart.
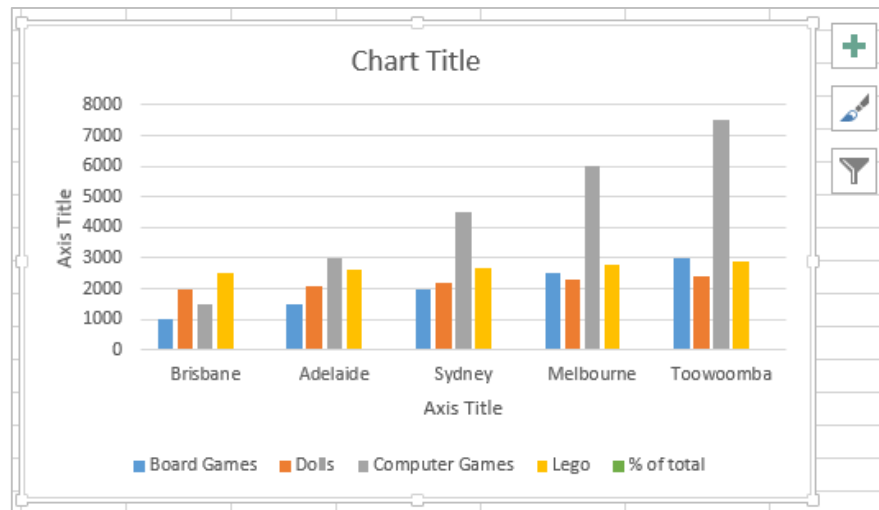
Formatting a Chart

Exercise 24.	*Modify a chart*

1. Click on the inserted chart

You will see a *contextual tab* above the ribbon

2. Click on the **Design** tab or **Format** tab to access the appropriate tools

3. Apply changes to chart as required
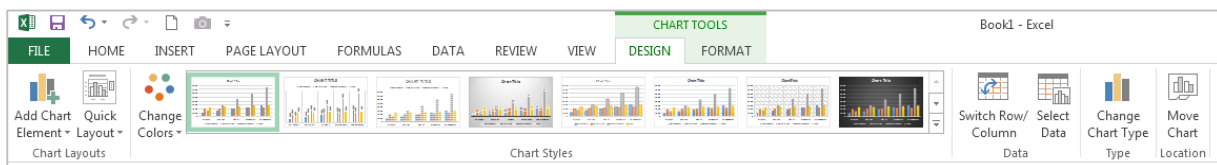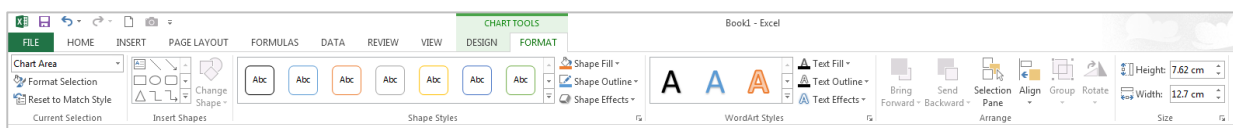
Chart Design

Chart Format

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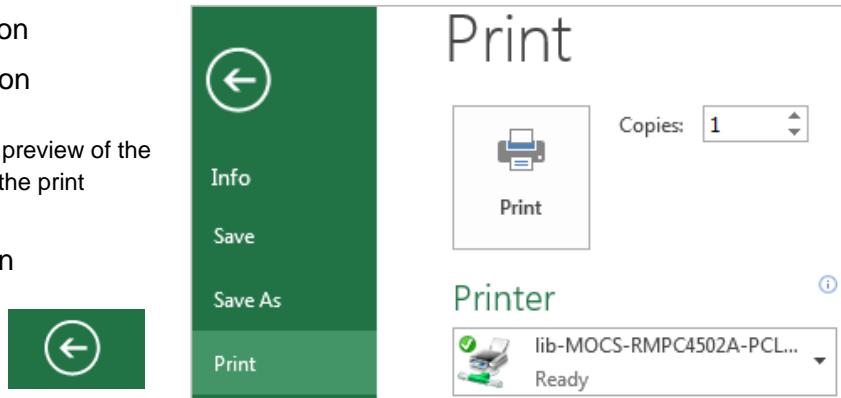*Your partner in scholarship*

Printing

Exercise 25.	*Preview and print a worksheet*

1. Click **File** tab in ribbon

2. Select the **Print** option

You will be presented with a Print preview of the worksheet and options to choose the print settings.

3. Click the **Print** button

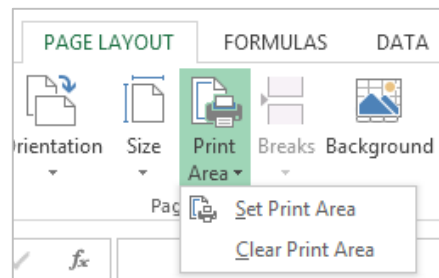To return to your worksheet, simply click on the **Back** button

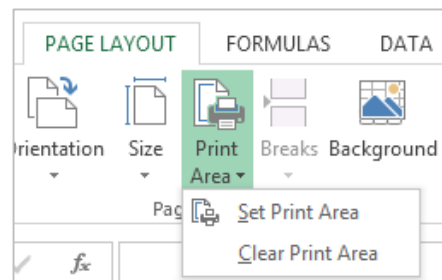| Exercise 26.	*Defining a print area*

Set a print area

1. Select the cells to define the print area. **(A1:F11)**

2. Go to the **Page Setup** group on the **Page Layout** tab

3. Click **Print Area**

4. Click **Set Print Area**

Print areas are saved when you save the workbook.

Clear a print area

1. Click anywhere on the worksheet

2. Go to the **Page Setup** group on the **Page Layout** tab
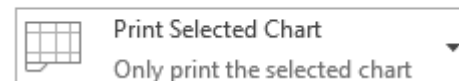
3. Click **Clear Print Area**.

Print a chart only

1. Select a chart

2. Click **File** tab

3. Select **Print**

Only the selected chart will print out.

Excel Help Facility

If you need help with any application tools you can get assistance by clicking the help button on the ribbon. This is located at the top right hand side of the screen.

Notes

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