# Using Microsoft Excel

Formatting a Spreadsheet

Formatting a spreadsheet means changing the way it looks to make it neater and more attractive. Formatting changes can include modifying number styles, text size and colours. Many people format their spreadsheet as they go but a lot of time and effort can be saved by waiting until the sheet is relatively complete before worrying about the formatting. This is because it is a lot easier to format a sheet once it already has a good amount of content. Also, changes to the information on the spreadsheet will often change the type of formatting needed – requiring the formatting to be changed if you have already done it.
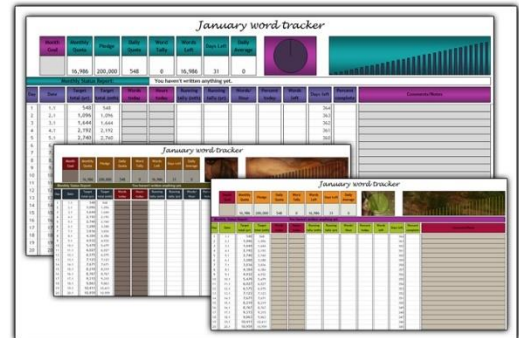
Formatting a spreadsheet can be done in a number of different ways:

• Using AutoFormat

• Using ribbon icons and shortcuts

• Using the format cells dialog box

The later methods take more time and effort but allow for far greater control over the end result.

Using AutoFormat

Excel's **AutoFormat** feature allows you to choose from a number of different table formats and then apply the formatting settings to a range of cells you specify. When you apply an AutoFormat, it will replace any existing formatting on the selected cells. You can add your own formatting afterwards though.

Exercise 1.   Using AutoFormat on a Table

1) Open your *Grades* workbook if it is not still open.

2) Select the cell range **A5:H19**. This should be the range of cells which contains the student results.

3) Make sure the **Home** tab is selected on the **Ribbon** and then click **Format as Table**.
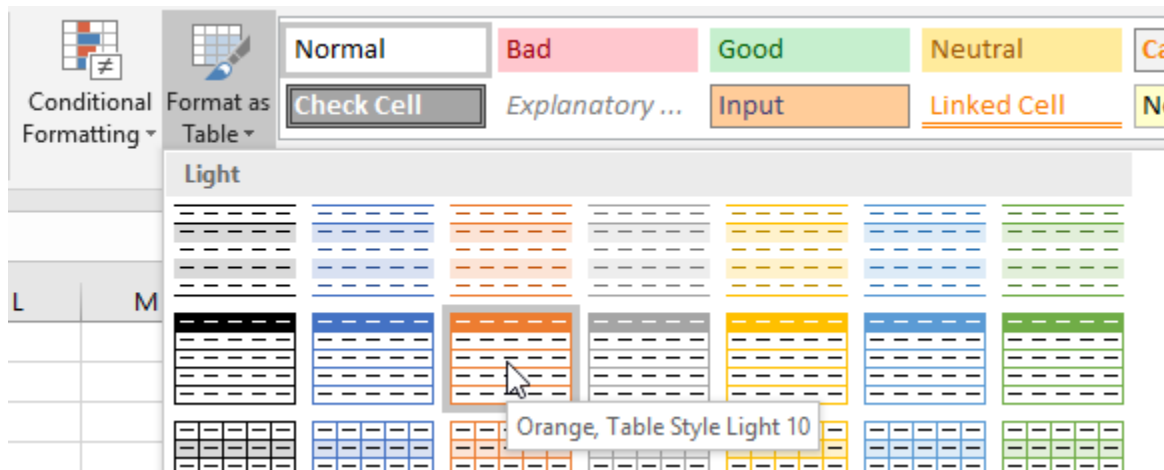
4) Click on one of the table formats in the list. A dialog box like the following will appear.
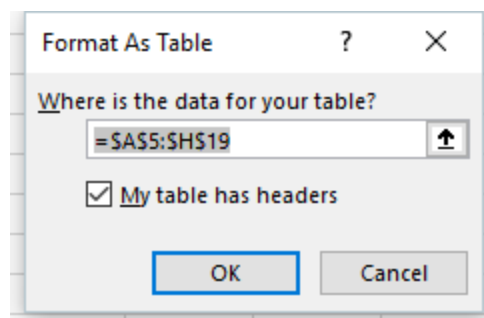
5) Check that the cell references are correct. Also make sure that the **My table has headers** options is selected.

6) Click **OK**. Excel will format the headings differently from the other cells in the table to make them stand out. It will also add a small arrow next to each one which can be used for sorting and filtering (more on that latter). Depending on the format chosen, Excel might also assume that rows and columns with formulas are totals and format them differently.

7) Try some other table formats on your selection.

Tip   You can drag the marker in the bottom right corner of the formatted area to extend the format.

Formatting Using Shortcuts

Many of the most commonly used formatting options can be selected from the **Home** tab of the ribbon or by using keyboard shortcuts.

Below is a list of some of the icons available in the ribbon along with a description of each.

Calibri	Change the font face for the selected cells. E.g. Arial or Comic Sans MS
11	Change the text size in the selected cells
B	Turns **Bold** formatting on and off in the selected cells [Ctrl] [B]
I	Turns *Italic* formatting on and off in the selected cells [Ctrl] [I]
U	Turns Underline formatting on and off in the selected cells [Ctrl] [U]
	Aligns the contents of each of the selected cells to the left
	Aligns the contents of each of the selected cells to the centre
	Aligns the contents of each of the selected cells to the right
Merge & Center	Merges the selected cells and aligns the contents to the centre
$	Formats the selected cells with the currency style ($#,###.##)
%	Formats the selected cells with the percent style (##%)
,	Formats the selected cells with the comma style (#,###.##)
	Increases the number of decimal places
	Decreases the number of decimal places
	Decreases indent for the selected cells
	Increases indent for the selected cells
	Change the border style around the selected cells
	Change the background colour of the selected cells
A	Change the colour of text in the selected cells

Exercise 2.   Formatting Text in Individual Cells

1)   Select cells **A1:A3**.

2)   Click the Bold formatting icon **B** or press **[Ctrl] [B]**.

Note   You can click it again to turn the bold formatting off.

3)   Click the arrow to the right of the Font Size box 11 ▼. A list of font (text) sizes will appear as shown to the right.

4)   Click **12**. You can also type a number directly in the box and press **[Enter]** if the size you want is not listed.

Note   Font heights are measured in points. 72 points equals one inch.

5)   Click the left align icon. ≣

6)   Click the arrow to the right of the font select box. Calibri ▼ A list of fonts will appear.

7)   Click Comic Sans MS in the list to choose this font. You can also type the font name in the selection box and press **[Enter]**. When the list of fonts is showing, you can press a letter to move to the first font name starting with that letter. They are mostly in alphabetical order, though recently used fonts appear at the top of the list.

8)   Click the arrow next to the Font Colour icon **A**. A list of available font colours will appear as shown to the right.

9)   From the list of colours, choose a colour and click it. You will notice that the line on the bottom of the icon will turn to the colour you just selected. You can choose that colour again by clicking on the icon itself instead of clicking the arrow next to the icon.
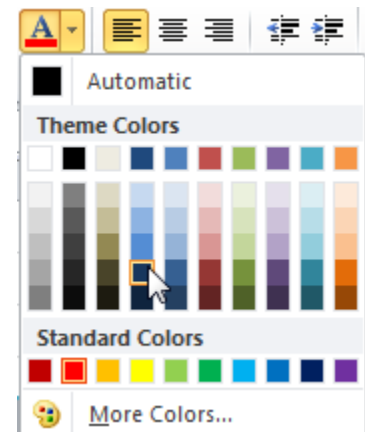
Note   All of the formatting shortcuts we have used are identical to the ones found in Microsoft Word and many other programs.

When your formatting is complete, the cells should look similar to the example below.

Joe Bloggs	Advanced Spreadsheets Class						
15							
10/04/2018							
Student ▼	Term 1 ▼	Term 2 ▼	Term 3 ▼	Term 4 ▼	Year Total ▼	Pass/Fail ▼	Grade ▼
Jean Picard	15	12	14	17	58	Pass	C
John Archer	18	14	17	16	65	Pass	B
James Kirk	23	22	19	21	85	Pass	A

Exercise 3.   Basic Number Formatting

It is often important to change the way numbers are presented in a spreadsheet. For example, you might want a number that looks like.

3845

To appear as

$3,845.00

In Excel it is not necessary to type things such as dollar signs yourself since the formatting options can place them in for you. Formatting options can easily be changed later as well.

1) Select the cells that have the grades for the students. These should be cells **B6:F19**. Some of the **AutoFormats** chosen before may have formatted these numbers in a way which is not appropriate in this instance.

2) Click the **Comma** formatting icon. ,

3) Click the **Decrease Decimals** icon twice. .00

The numbers should now be back to normal with no decimal places. Now we will format the main heading so that it becomes centred across several cells.

4) Select cells **B1:H1** (the one that says *Advanced Spreadsheets Class*).

5) Click the ⊞ Merge & Center icon.

The selected cells will now be merged in to one with the contents centre aligned.

6) Use some of the formatting options you have learned to make this heading stand out more (size, font, colour).

Exercise 4.   Adjusting Row Height and Column Width

1) Select a cell anywhere within column **A**.

2) On the **Ribbon**, click the **Format** icon in the **Cells** group to display the cell format menu. The first options in the list are options for adjusting row and column height. Many of these options are also available if you right click on a row or column header button but there are also some quick ways to adjust column width and row height.
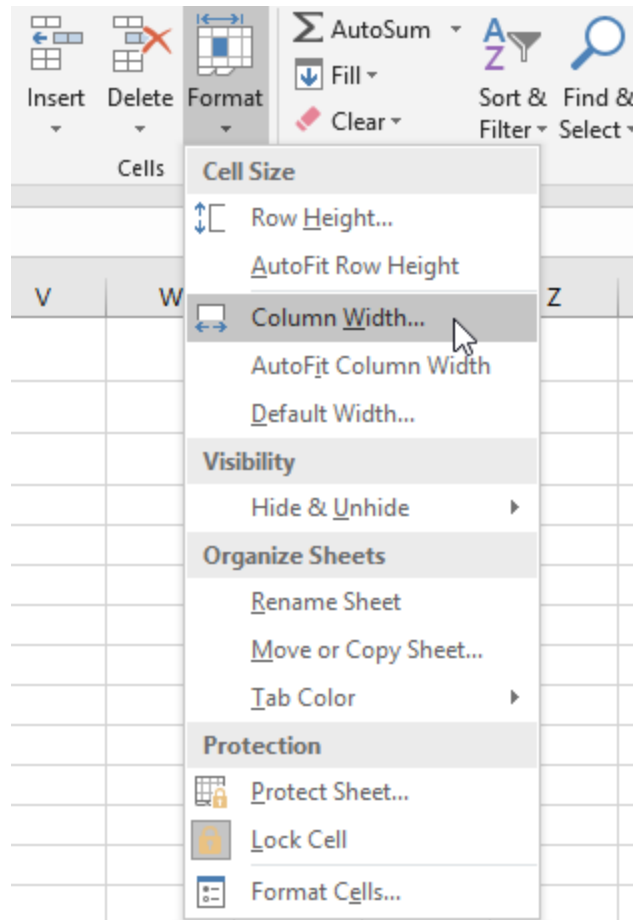
3) Move your mouse pointer so that it is between the column **A** and **B** headings. You mouse pointer will change to a double arrow shape.

4) Click your mouse button and drag to the right. A caption will appear telling you how wide the column will be.

5) Keep on dragging until the column width reaches **15.00 (110 pixels)**.
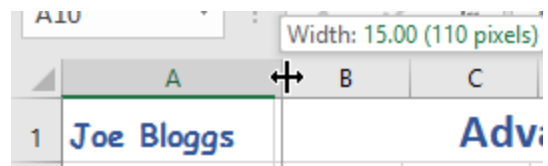
You can also resize a column so that it will automatically fit the contents of the column.

6) Move your mouse pointer so that it is between the column **A** and **B** headings again.

7) Double-click to automatically fit the column width to the contents of the column.

Tip   If you have a heading in the top of the column that is very wide then you may not want the whole column to be that wide. If you want a column width to fit a selection of cells instead of the entire column you can click the **Format** icon as shown before and select the **AutoFit Column Width** option.

It is also possible to re-size several columns at the same time.

8) Select column **B** through to column **F** by dragging across the column headings.

9) Follow the steps 3 – 5 in this exercise to change the width of any of the selected columns to **9.29 (70 pixels)**. All of the selected columns will become the same width.

If you use the AutoFit method, then each column will resize to fit its contents. This could mean that each column would end up a different size.

10) Use any of the above methods to select suitable widths for columns **G** and **H**.

These same methods can also be used for adjusting the height of rows. Row height will often change automatically when you change the size of text in the row.

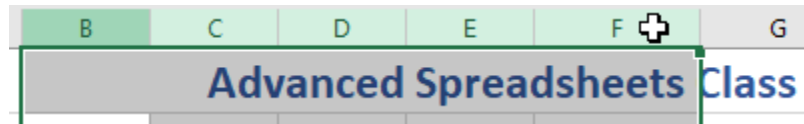**Tip**   If you want to have gaps in your table, instead of leaving rows and columns blank, it is often better to adjust row heights and column widths to create the gaps. Some features of Excel can automatically select an entire table if it has no gaps. Leaving blank rows or columns in your data, however, can make things more difficult for you.

Student	Term 1	Term 2	Term 3	Term 4	Year Tot	Pass/Fail	Grade
Jean Picard	15	12	14	17	58	Pass	C
John Archer	18	14	17	16	65	Pass	B
James Kirk	23	22	19	21	85	Pass	A
Chris Pike	8	11	7	16	42	Fail	D
Jeff Sinclair	19	19	18	14	70	Pass	B
Katheryn Janeway	13	13	10	12	48	Fail	D
Ben Cisco	16	22	20	19	77	Pass	B
John Sherridan	22	20	20	19	81	Pass	A
Michael Burnham	23	21	24	21	89	Pass	A
Jack O'Neill	13	14	11	18	56	Pass	C
Class Average	17	17	16	17	67		
Highest Mark	23	22	24	21	89		
Lowest Mark	8	11	7	12	42		
Number of Students	13	13	13	13	13		

Advanced Formatting Options

Many additional formatting options are not shown as icons in the **Ribbon**. These additional options can be found in the **Format Cells** dialog as shown below.
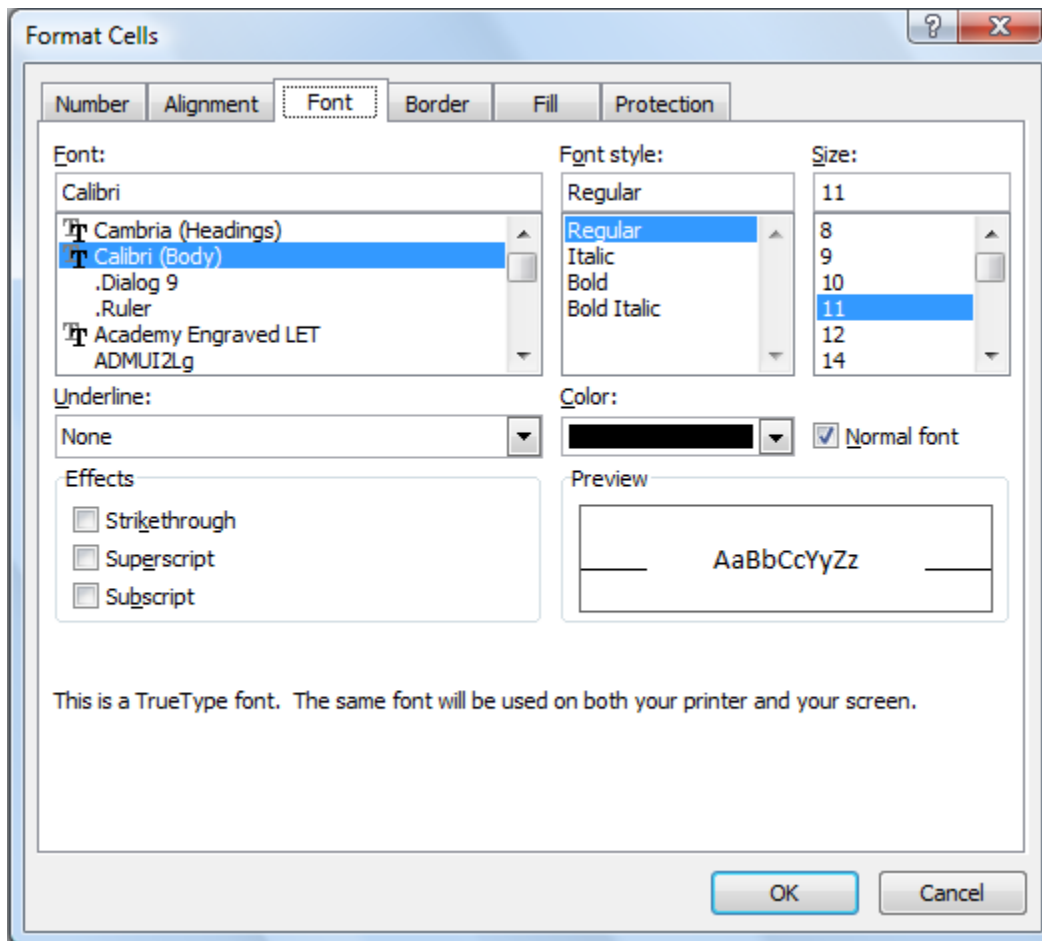
There are six tabs along the top of the dialog box which allow you to go to different categories for formatting. The first five tabs will be demonstrated below. Sheet protection will be explained in a later exercise.

Number Formats

Numbers, dollar amounts, percentages, dates and times are all treated by Excel as numerical values. As far as Excel is concerned, they are all numbers. The only difference is the way they are displayed through formatting. In an earlier exercise, we used icons on the toolbar to change the number format of the main cells in the table. The toolbar icons only give a few format choices. The Formatting options however, give numerous number formatting options and even allow you to create your own custom number formats.

Exercise 5.   Changing Number Formats

1) Select the cells with the table averages (**B16:F16**).

2) Access the Format Cells dialog box by using one of the following methods.

- Click the small button in the bottom right corner of the **Number** group on the **Ribbon** (there are also similar buttons in the **Font** and **Alignment** groups – these will take you to different tabs in the same **Format Cells** dialog box).
- **Right-click** on the selected cells and choose **Format Cells…**
- Press **[Ctrl] [1]** to open the **Format Cells** dialog box.

3) Make sure the **Number** tab is selected.
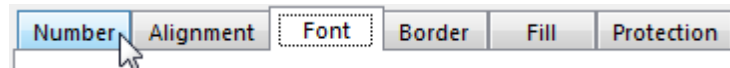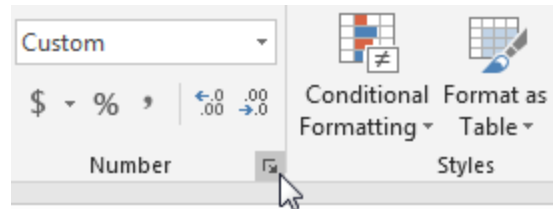
4) From the list of **Categories** on the left choose **Number**.

5) Set the number of **Decimal Places** to *2*. Note that a sample of the selected number format appears at the top.

6) Click **OK** to confirm the change.
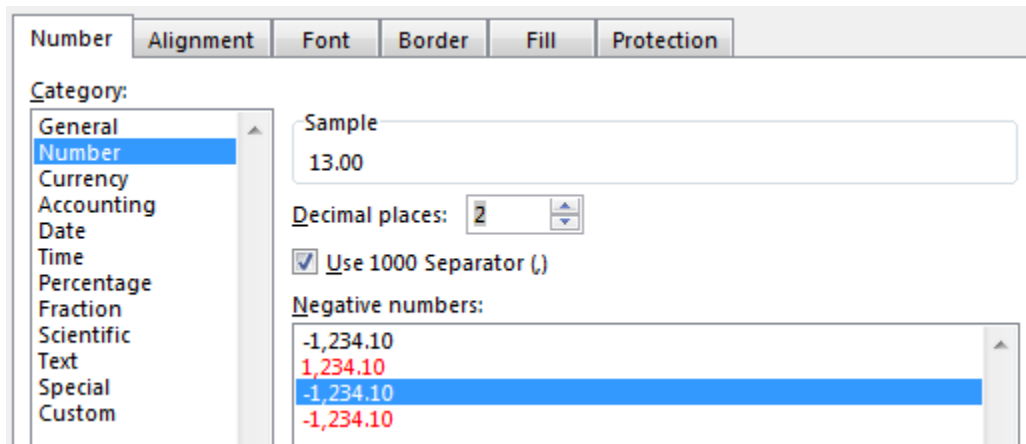
Note	Number formats will remain even if the numbers in the cells change. This is true for other types of formatting also. If you begin typing a number in a cell and it suddenly turns in to something unexpected like a date or dollar value, it is probably because that sort of number formatting was used on that cell previously.

Exercise 6. Changing Date Formats

1) Select cell **A3**.

2) Access the **Format Cells** options as shown in the previous exercise.

3) Choose **Date** for the number category.

4) Select a date format which includes the name of the month rather than the number of the month.

5) Click **Ok** when done.

Note   If you open the Format Numbers options and the only tab available is the Font tab, it is most likely because you are editing the contents of a cell.

Exercise 7. Aligning Text

1) Select the cells **B5:H5**.

2) Access the **Format Cells** options.

3) Change the **Horizontal** alignment to *Left (Indent)*.

4) Change the **Orientation** to *45 Degrees* (this can be set by entering the number in the degrees box shown or by dragging the text line above it to the angle you want.

5) Click **Ok** to confirm the settings.

6) Select cell **B1** (this cell should contain your heading in the merged cells).

7) Access the **Format Cells** options.

8) Notice that the **Merge Cells** option is turned on and the **Horizontal** alignment is set to *center* because we used the **Merge and Center** icon earlier. Click **Cancel** to leave these options as they are.
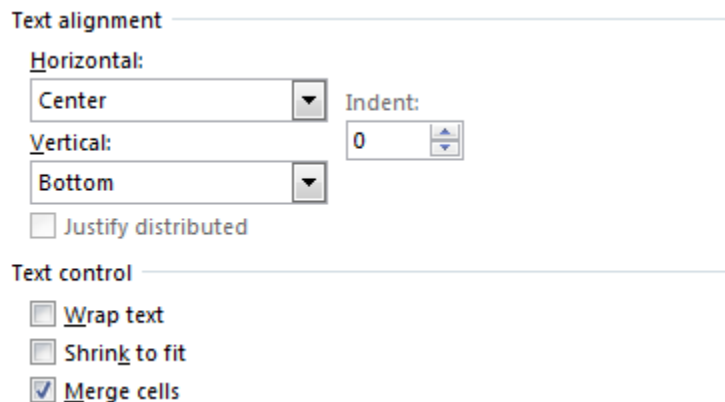
Exercise 8.   Font Options

1) Select cell **B1**.

2) Access the **Format Cells** options.

3) Select the **Font** tab.

4) Select the following options as shown to the right:

   - Font Style Bold
   - Size 14
   - Underline Double
   - Colour Dark Blue

5) Click **OK** to confirm the changes.
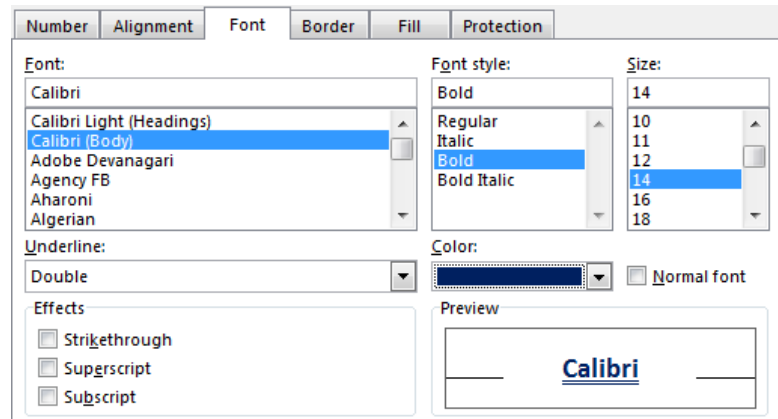
Borders and Shading

In addition to using the borders icon, there are two other ways to format the borders of selected cells.

Exercise 9.   Format Borders Using the Cell Format Options

1) Select cells **A1:A3** (the ones with your name, age and date of birth).

2) Access the **Format Cells** options and click the **Border** tab.

3) Select a line **Style** from the options on the left.

4) Choose a line **Color** from below the line styles.

5) The rest of the options allow you to specify which cell borders will have lines. Click the **Outline** button to place borders around the outer edge of the selected cells.

6) Click **Ok** to confirm the options.
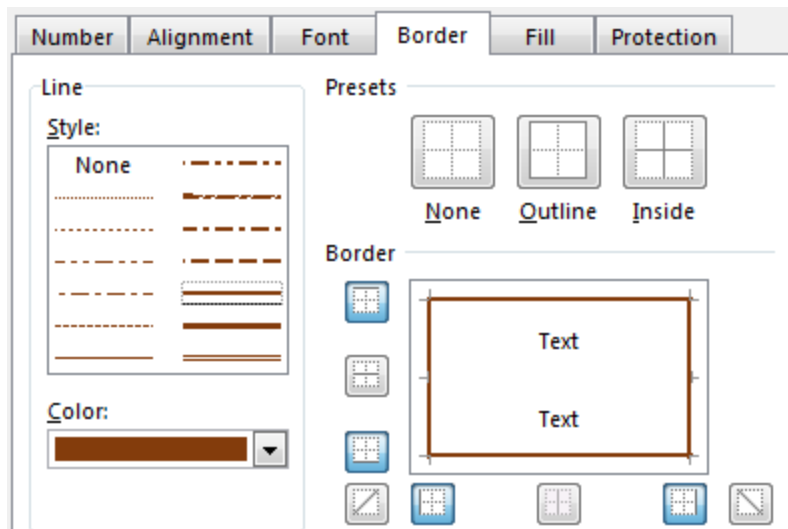
	A
1	Joe Bloggs
2	15
3	10 April 2018

Note   It may look like you already had borders around all of your cells but the lines that are there to start with are gridlines that help you see the edge of cells. Gridlines will not appear when you print your spreadsheet unless you have added borders around cells.

Exercise 10. Drawing Borders

Another easy way to format borders is by drawing them using the Border drawing tools.

1) Click the arrow next to the **Borders** icon.

2) At the bottom of the list of border styles, click the **Draw Border** option.
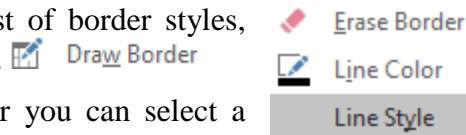
3) Before drawing a border you can select a **Line Style** and **Line Color** from the **Borders** menu.
Select a line style and then choose a red colour for your border.

5) Now that the line style has been chosen, drag around the cell range **K6:L10** to create a border around those cells.

6) Now draw a vertical line down the middle of those cells so that they look like the example to the right.

7) When you are finished, you can select the **Draw Border** option again from the menu to turn it off or you can simply press the **[Esc]** key.

Note   You can use the *Erase Border* option from the Borders menu to draw over any borders you want to remove.

Exercise 11. Editing Background Patterns

1) Select the cells that you have been drawing borders around (**K6:L10**).

2) Access the **Format Cells** options and click the **Fill** tab.

3) Click the **Patten Style** drop-down list .

4) When the list of pattern appears, click the diagonal stripe pattern.

5) Select a light orange for the **Pattern Color**.
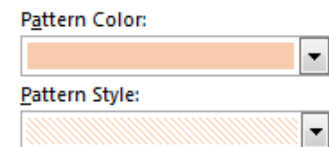
6) From the list of colours under **Background Color** click yellow.

7) Click **OK** to confirm the choices. The cells should now have a striped pattern like the example to the right.

Tip   For more advanced fill options including textures and gradients you can click the **Fill Effects** button. If all you want is a single solid colour then the quickest way to do that is to select a colour from the icon on the Ribbon.

Exercise 12. Removing Formatting

1) Click on a blank cell in your spreadsheet.

2) Click the **Fill Colour** icon 🖌 to change the background colour of that cell.

3) Make sure that cell is still selected and press **[Del]**.

Pressing delete will remove the contents of a cell but won't affect the formatting in that cell. If you want to remove formatting, such as the background colour in this cell, you need to use a different method.

4) From the **Home** tab on the **Ribbon** click the 🖌 Clear ▾ icon. A list of options will appear.

5) Select the **Clear Formats** option.

All formatting will now be removed from that cell.

6) Save the changes to your *Grades* worksheet.

Note	If you enter text or numbers in to a blank cell and get unexpected results, it is often because of some text or number formatting left over from something that was previously in those cells.

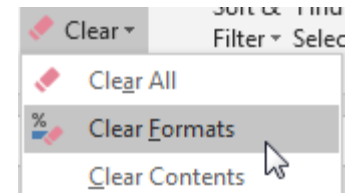|	A	B	C	D	E	F	G	H	I	J	K	L
1	Joe Bloggs			Advanced Spreadsheets Class								
2	15											
3	10 April 2018											
4												
5	Student	Term 1	Term 2	Term 3	Term 4	Year Total	Pass/Fail	Grade				
6	Jean Picard	15	12	14	17	58	Pass	C			0	F
7	John Archer	18	14	17	16	65	Pass	B			35	D
8	James Kirk	23	22	19	21	85	Pass	A			50	C
9	Chris Pike	8	11	7	16	42	Fail	D			65	B
10	Jeff Sinclair	19	19	18	14	70	Pass	B			80	A
11	Katheryn Janeway	13	13	10	12	48	Fail	D				
12	Ben Cisco	16	22	20	19	77	Pass	B				
13	John Sherridan	22	20	20	19	81	Pass	A				
14	Michael Burnham	23	21	24	21	89	Pass	A				
15	Jack O'Neill	13	14	11	18	56	Pass	C				
16	Class Average	17.00	16.80	16.00	17.30	67.10						
17	Highest Mark	23	22	24	21	89						
18	Lowest Mark	8	11	7	12	42						
19	Number of Students	13	13	13	13	13						

Exercise 13. Custom Number Formats

If the built-in number formats aren't quite right for your needs, you can create your own custom number formats. The examples below demonstrate how this can be done.

1) Select the cell with the date (**A3**).

2) Display the **Format Cells** dialog (**[Ctrl] [1]**) and select the **Number** tab.

3) From the **Category** list select **Custom**. The custom format that is currently in use will be displayed under Type. A list of other pre-set custom formats will be shown underneath.

> **Type:**
> [$-en-AU]d mmmm yyyy;@

The format code might not seem to make a lot of sense, but the following pointers will help. Also, a sample will show above the **Type** box to let you know what numbers will look like with that format.

Available number formats

Applies To: Excel 2016, Excel 2013, Excel 2010, Excel Starter 2010

By applying different formats to numbers, you can change the appearance of a number without changing the number itself. A number format does not affect the actual cell value that Excel uses to perform calculations. The actual value is displayed in the formula bar.

Number in the formula bar
= 10893
B   C
$10,893.00

Number with a currency
number format

Formula bar and related cell

The following table provides a summary of the number formats that are available on the

4) Make sure you have clicked in the Type box and press **[F1]**. This is the shortcut key for Excel's online help in your web browser. Since you are currently in a custom number format, Excel's help will automatically suggest help topics related to custom number formats.

5) Close your web browser (you know how to get to help if you need it later).

Sample
Tue 10 April 18

Type:
ddd d mmmm yy

mm:ss
mm:ss.0
@
[h]:mm:ss
_-$* #,##0_-;-$* #,##0_-;_-$* "-"_-;_-@_-

6) Edit the custom format code so that it looks like
   ddd d mmmm yy.
   The table below gives a brief explanation of what some of the symbols mean (there are plenty of others in Excel's help).

7) Test some of them to create your own custom date format, using the Sample to see how your formats look. Look at some of the formats in the custom format list for examples.

d	dd	ddd	dddd
Single or double digit day	Double digit day	Short day name	Long day name
m	mm	mmm	mmmm
Single or double digit month	Double digit month	Short month name	Long month name
y or yy	yyy or yyyy		
Double digit year	4 digit year		

8) Click **OK** when you have a date format you like.

Note   Any custom number formats you create will be added to the bottom of the list.

In addition to custom date formats, sometimes it can be useful to create your own formats for regular numbers. You can create a format which shows differently depending on the type of value in a cell. Each part of the format is separated by a semi-colon (;). The first section specifies how positive numbers will be formatted, the second section for negative numbers, the third section for zero values and the fourth section for text. We'll look at an example.

9) Scroll down to some blank cells in your sheet (Row 20 or lower).

10) Enter the following information

23	4257
24	-4257
25	0
26	Text

11) Select the four cells you have just entered information in to.

12) Open the **Format Cells** dialog **[Ctrl] [1]** and select the **Custom** category from the **Number** tab.

13) Enter the following custom number format. As you enter it, pay attention to how the sample looks.

$$\$\#,\#\#0.00;[Red](\$\#,\#\#0.00);"zero";[Green]$$

14) Click **OK** when you have typed the format and see how your cells look.

- The format we have just enters formats positive numbers (first section) with a dollar sign, a comma between thousands and 2 decimal places. A 0 means that a digit will always be visible while a # means a digit will only appear there if the number is large enough.

23	$4,257.00
24	($4,257.00)
25	zero
26	Text

- The second section formats negative numbers the same, except they will be shown in a red colour surrounded by brackets.
- The third section formats negative values so the text "zero" appears.
- The fourth section displays text values with a green colour.

15) Test some of the following formats using numbers as you enter them on your sheet. Remember that custom formats will stay in cells even if you delete the contents of a cell unless you clear the format.

- 0 " hours"
- "Student #" 0
- h:mm:ss AM/PM dddd d mmmm yyyy

For the last one enter the function **=Now( )** in the cell as this will return the current date and time as an answer.

Tip	Try entering the number 1 and then format it as a date. You will see the first of January 1900 as the date.

Tip Try entering the number 1 and then format it as a date. You will see the first of January 1900 as the date.
Dates in excel are determined as the number of days since that date so that 29th June 2010 would show as 43280, since that is the number of days since the beginning of the 1900s.
Times are divisions in a day, so mid-day formatted as a normal number would show as 0.5.

Shortcuts Covered in This Section

Ctrl B	Bold formatting on and off
Ctrl I	Italics formatting on and off
Ctrl U	Underline formatting on and off
Ctrl 1	Open the **Format Cells** dialog
F1	Display Excel help