

# Edge Hill University

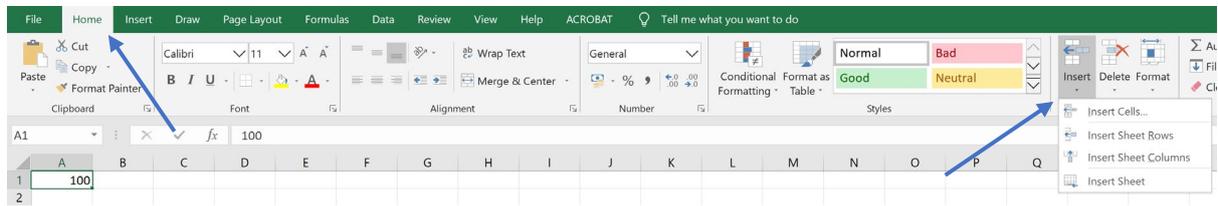
Getting Started with Microsoft Excel | Excel Basics

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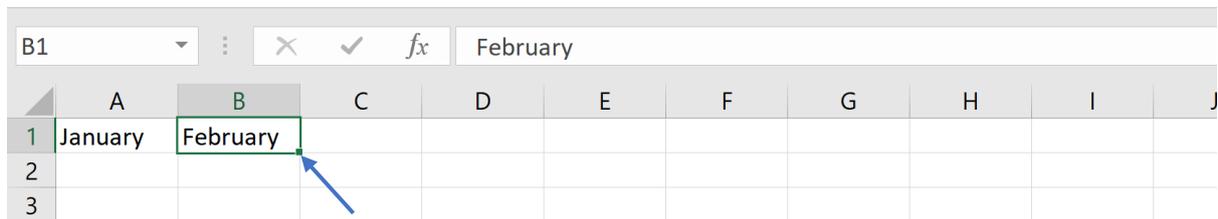
## Inserting and Editing Data

To add data to a cell, click in it then enter the data. To add a row or a column to a sheet, click **Home > Insert** then select from the available options. Rows will automatically be inserted above the one currently selected, and columns will automatically be inserted to the left.

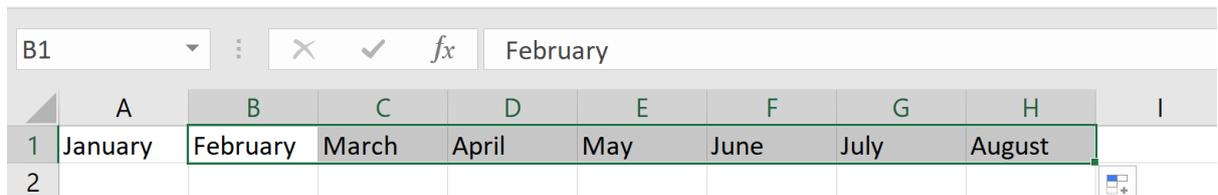


## AutoFill

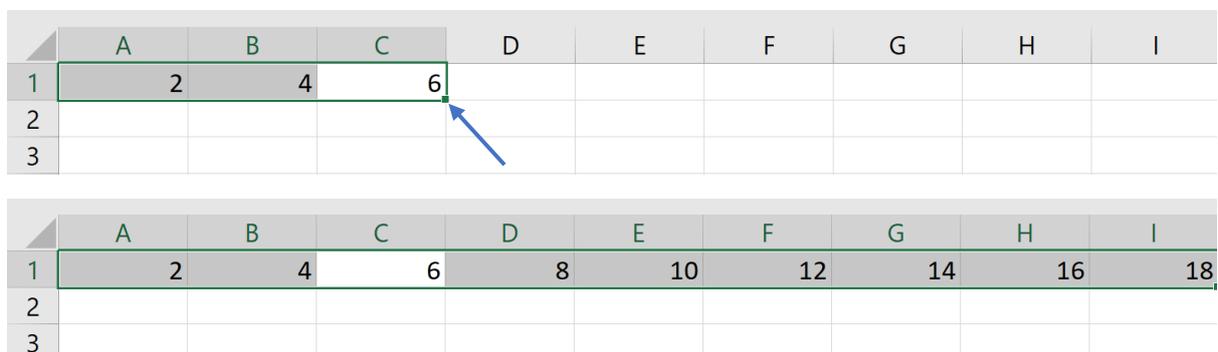
Excel can automatically fill following cells if incremental data is added; as an example, enter January in cell A1 and February in cell B1 then drag the bottom right corner of cell B1 across to the right.



Excel will automatically fill the empty cells with the following months.



To AutoFill following cells with numerical data which follows a pattern, select **all the existing numbers** then drag the bottom right corner of the last cell across to the right.

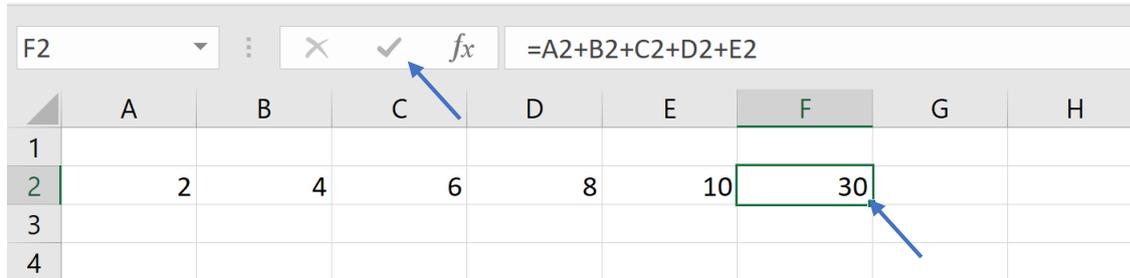


Hint: AutoFill can also be used to automatically add data to empty cells by dragging down.

## Adding Cells

To add cells together, click in the cell in where the answer to the addition of the cells is required then type the formula. Cells can be added together by directly entering the cell references or clicking each individual cell to add to the formula - click the tick to update the output.

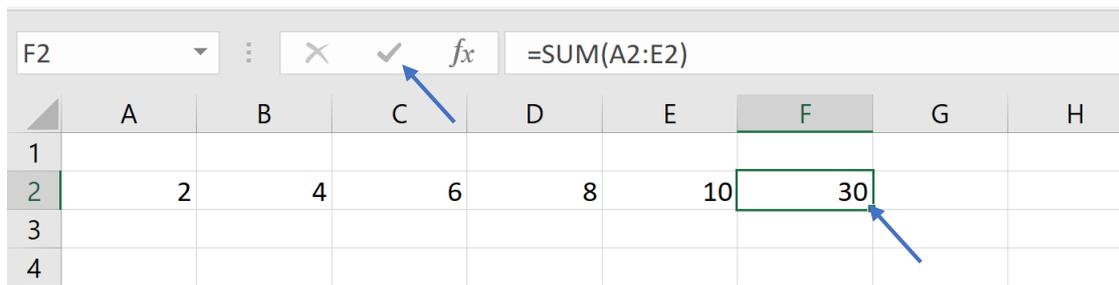
=A2+B2+C2+D2+E2



	A	B	C	D	E	F	G	H
1								
2	2	4	6	8	10	30		
3								
4								

Alternatively, if the cells are in a line, it is easier and quicker to use this formula to produce the same result - click the tick to update the output.

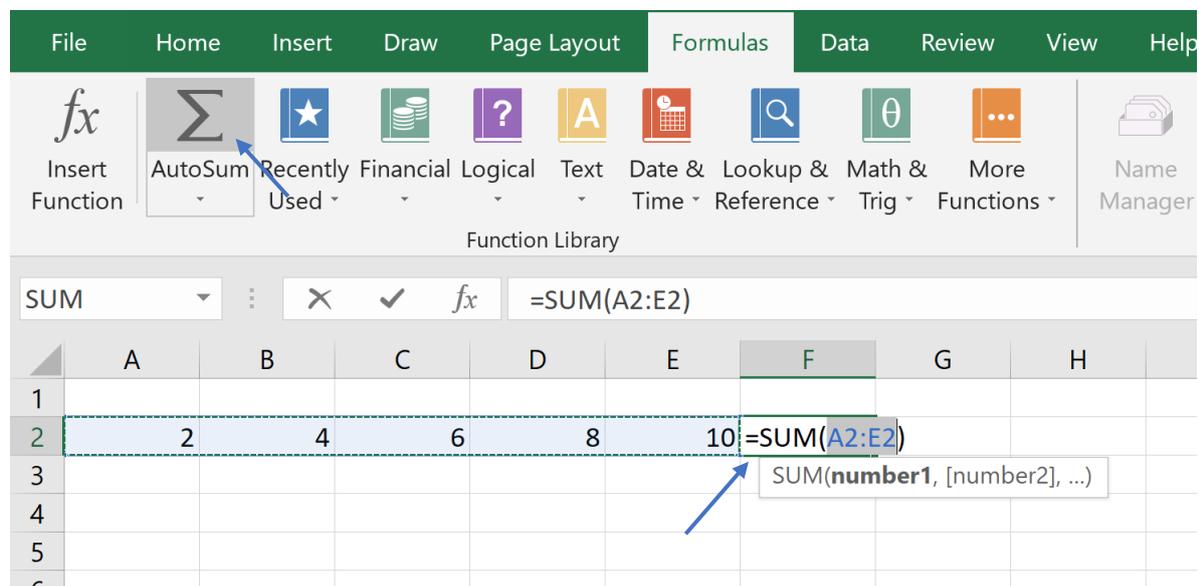
=SUM(A2:D2)



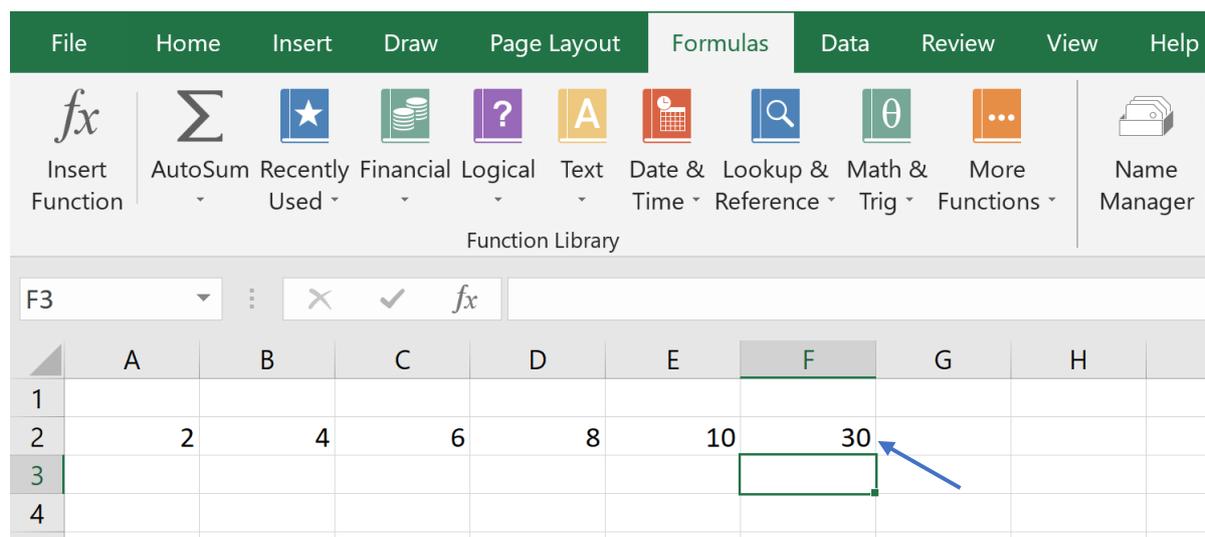
	A	B	C	D	E	F	G	H
1								
2	2	4	6	8	10	30		
3								
4								

## AutoSum

A useful feature in Excel is the AutoSum feature. Click in the empty cell at the end of a group of cells to be added together then click **Formula > AutoSum**.



Now click on the green formula tick or press the **Enter** key to apply.



Hint: AutoSum adds figures in cells above the output cell by default, but if the wrong cells are inadvertently selected by Excel simply drag the highlighted selection to cover the correct cells to be added.

## Subtracting, Multiplying or Dividing Cells

To subtract one cell from another, in this example the formula is =A2-A3

	A	B	C	D	E	F
1						
2	10					
3	2					
4	=A2-A3					
5						

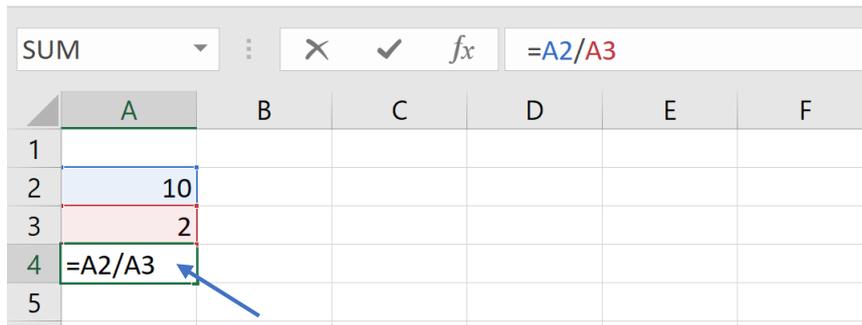
	A	B	C	D	E	F
1						
2	10					
3	2					
4	8					
5						

To multiply two cells together, in this example the formula is =A2\*A3

	A	B	C	D	E	F
1						
2	10					
3	2					
4	=A2*A3					
5						

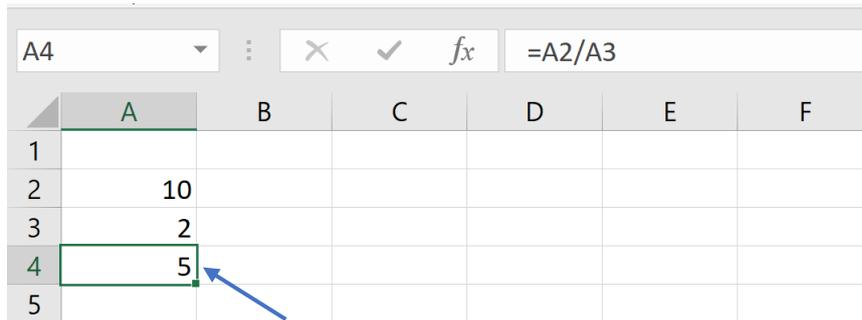
	A	B	C	D	E	F
1						
2	10					
3	2					
4	20					
5						

To divide two cells, in this example the formula is =A2/A3



This screenshot shows the Excel interface with the formula bar displaying '=A2/A3'. The spreadsheet grid shows cell A2 containing '10' and cell A3 containing '2'. Cell A4 is selected and contains the formula '=A2/A3'. A blue arrow points to the formula bar, and another blue arrow points to the formula in cell A4.

	A	B	C	D	E	F
1						
2	10					
3	2					
4	=A2/A3					
5						

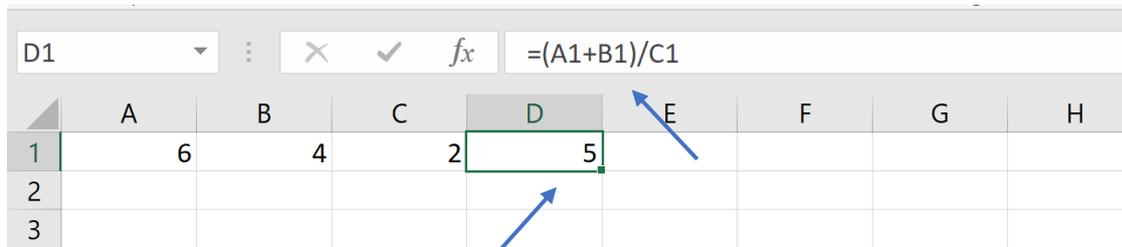


This screenshot shows the same Excel spreadsheet after the formula has been calculated. The formula bar now displays '=A2/A3' and the result '5' is shown in cell A4. A blue arrow points to the result '5' in cell A4.

	A	B	C	D	E	F
1						
2	10					
3	2					
4	5					
5						

## Formula Order (BODMAS)

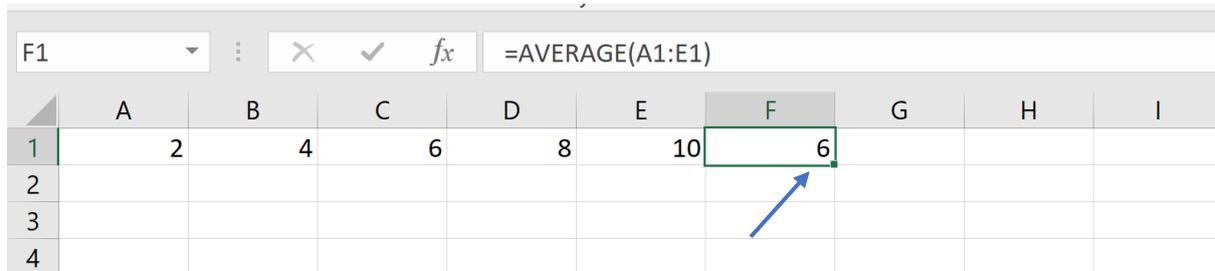
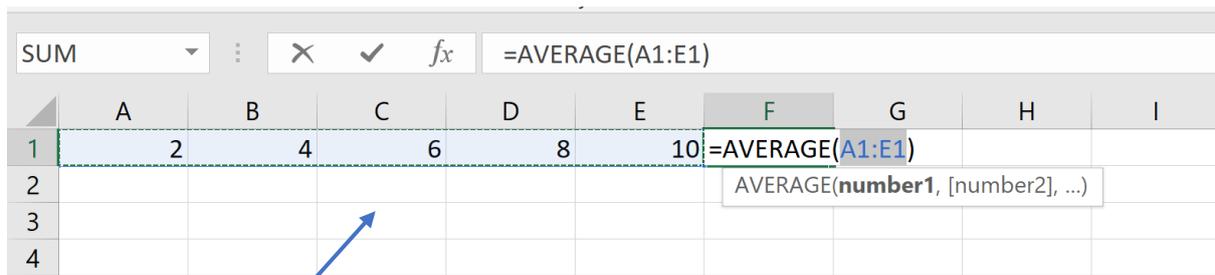
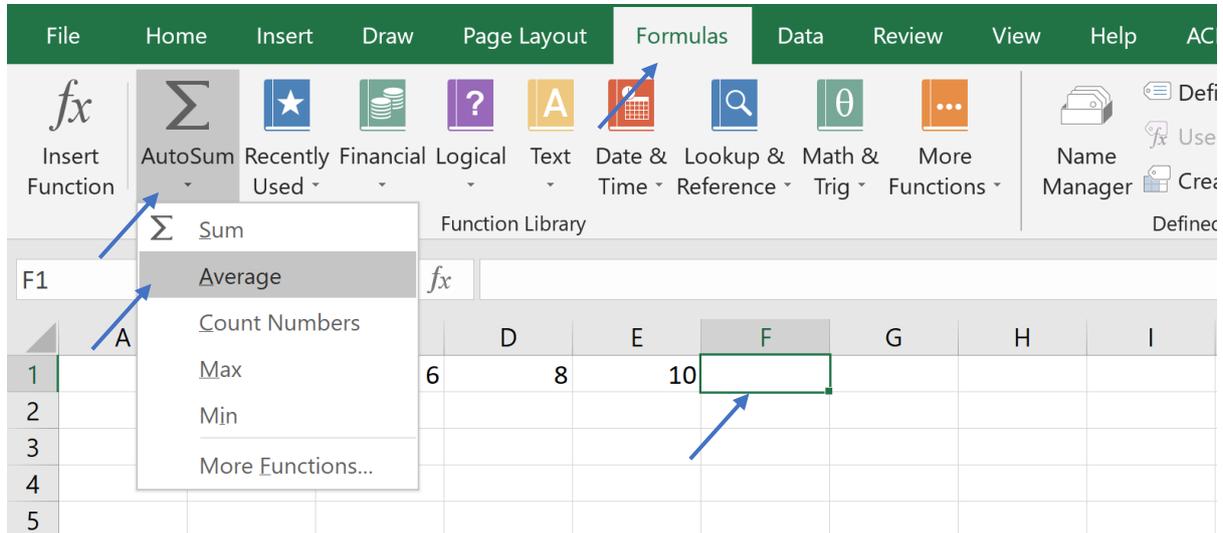
When using a formula that contains more than one simple addition, subtraction, division or multiplication, the order of operation needs to be set to perform the calculation accurately. The acronym **BODMAS** can be used to ensure a formula is entered correctly. BODMAS stands for **Brackets Over Division**, then **Multiplication**, then **Addition**, then **Subtraction**. The brackets are added to ensure that the addition takes place first, before the division, e.g.  $(6+4)/2 = 5$



	A	B	C	D	E	F	G	H
1	6	4	2	5				
2								
3								

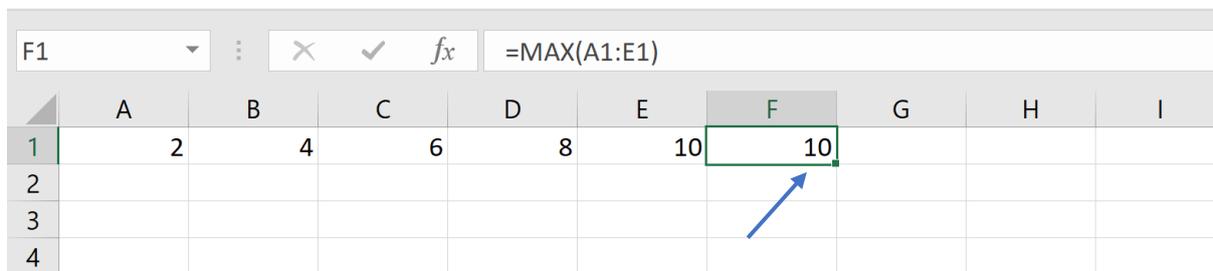
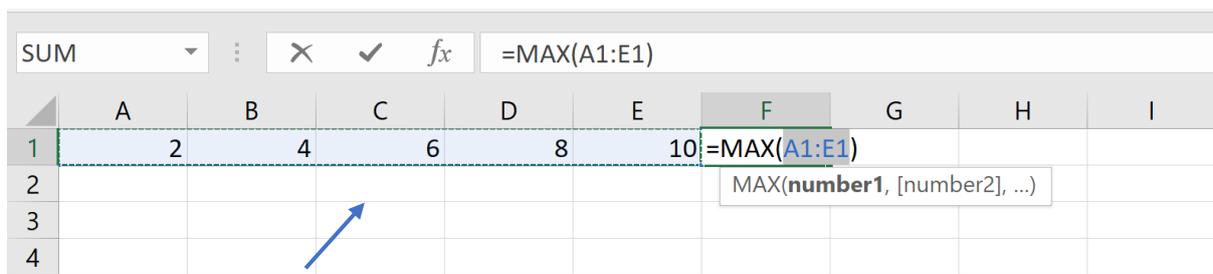
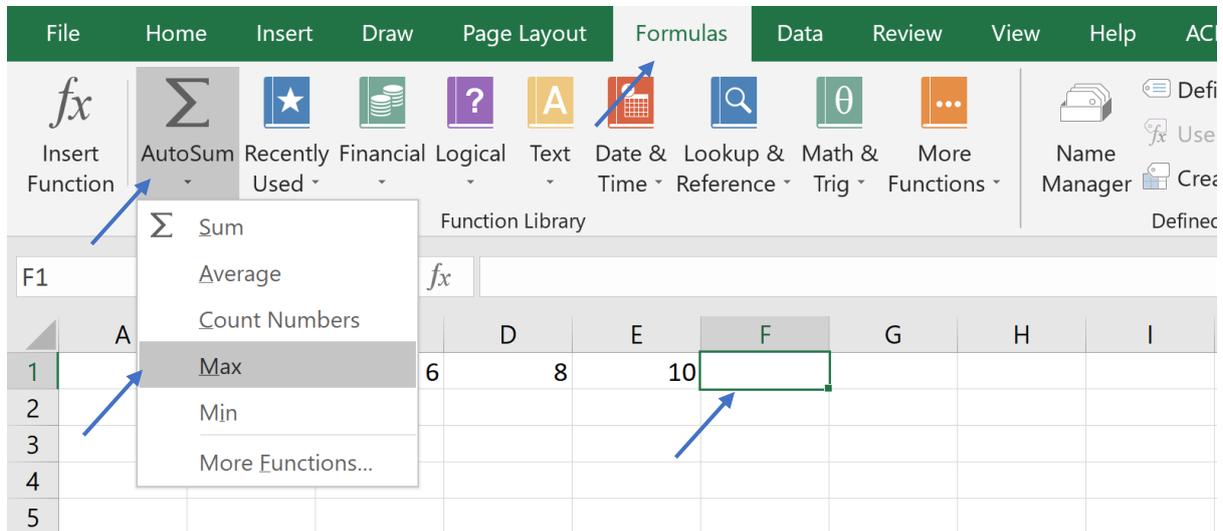
## Average

The average of a group of cells can be calculated using a formula. Click on the cell in which to display the average then click **Formulas > AutoSum > Average**. Select the cells to calculate the average of, then press the **Enter** key.



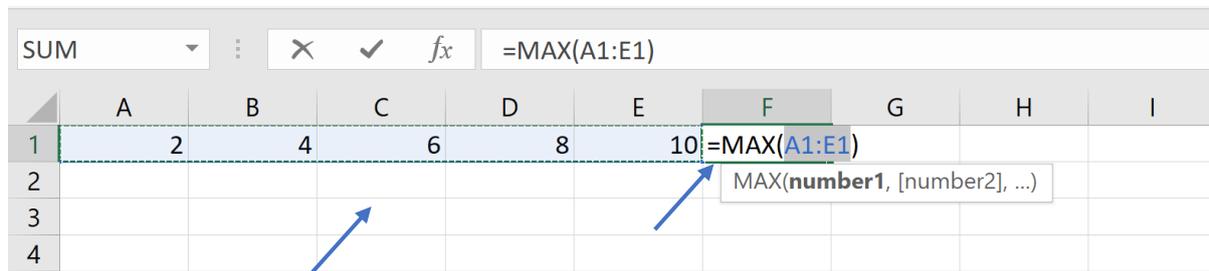
## Max and Min

To insert a formula that will display the maximum or minimum number in a list click the cell in which to display the max/min then click **AutoSum** then either **Max** or **Min**. Select the cells to find the maximum or minimum value of, then press the **Enter** key.



## Checking a Formula

When a cell which contains a formula is **double-clicked**, the cells which the formula relates to are automatically highlighted in blue making it easy to see if the formula is covering the cells required.



## Formula Errors

These are two of the most common error messages that may appear in Excel and what they signify.

**#DIV/0!** - This error is displayed when a number is divided either by zero (0) or by a cell that contains no value.

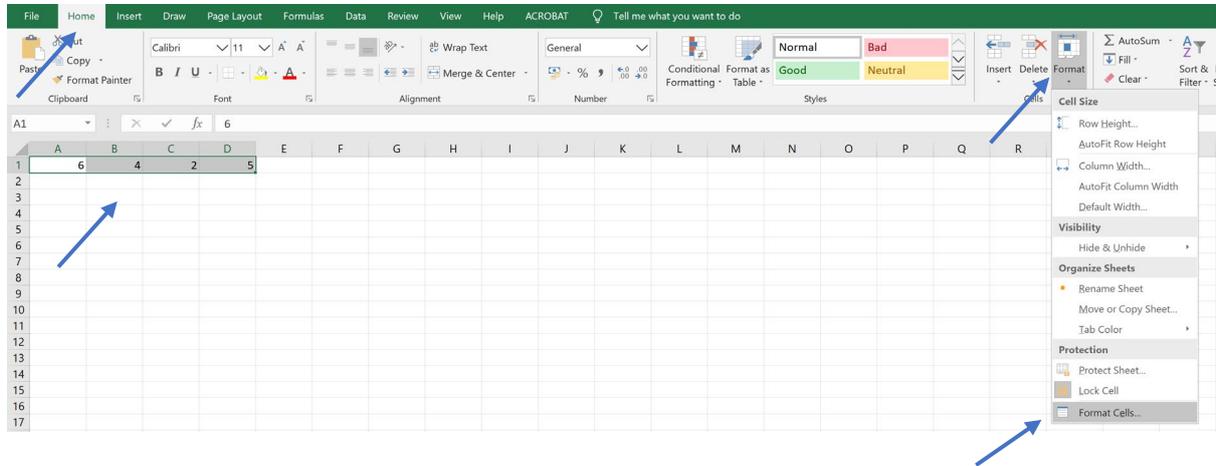
	A	B	C	D	E	F	G	H	I
1	6	4	0	#DIV/0!					
2									
3									

**#VALUE!** - This error is displayed when Excel is expecting to use a cell containing a number but instead finds spaces, text or other characters.

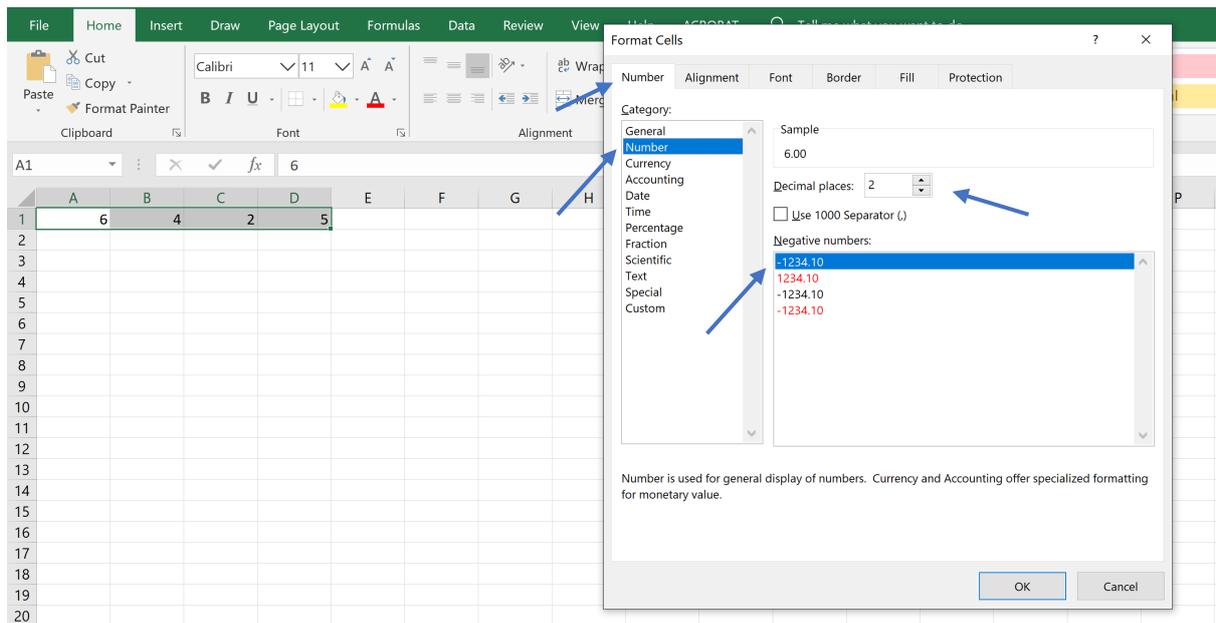
	A	B	C	D	E	F	G	H	I
1	6	4 H		#VALUE!					
2									
3									

## Formatting Cells

Cells can be formatted in a variety of ways e.g. numbers can be displayed as currency, as a percentage or with a certain number of decimal places. Select the cells to format, then click **Home > Format > Format Cells** (alternatively, right-click on the selected cells then click **Format Cells**).

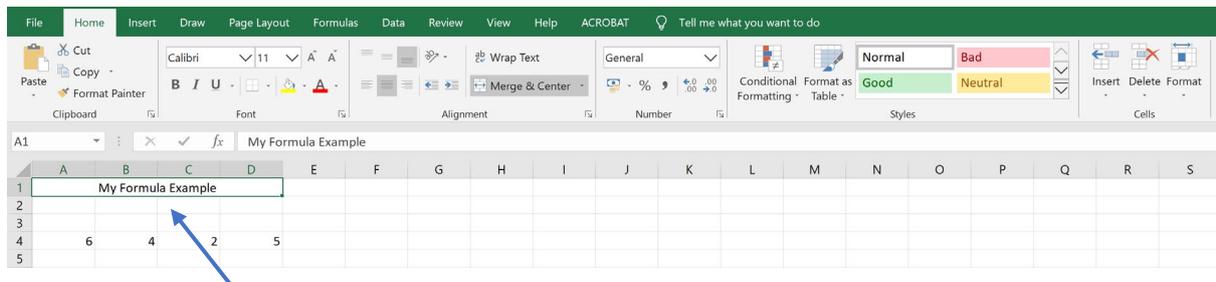
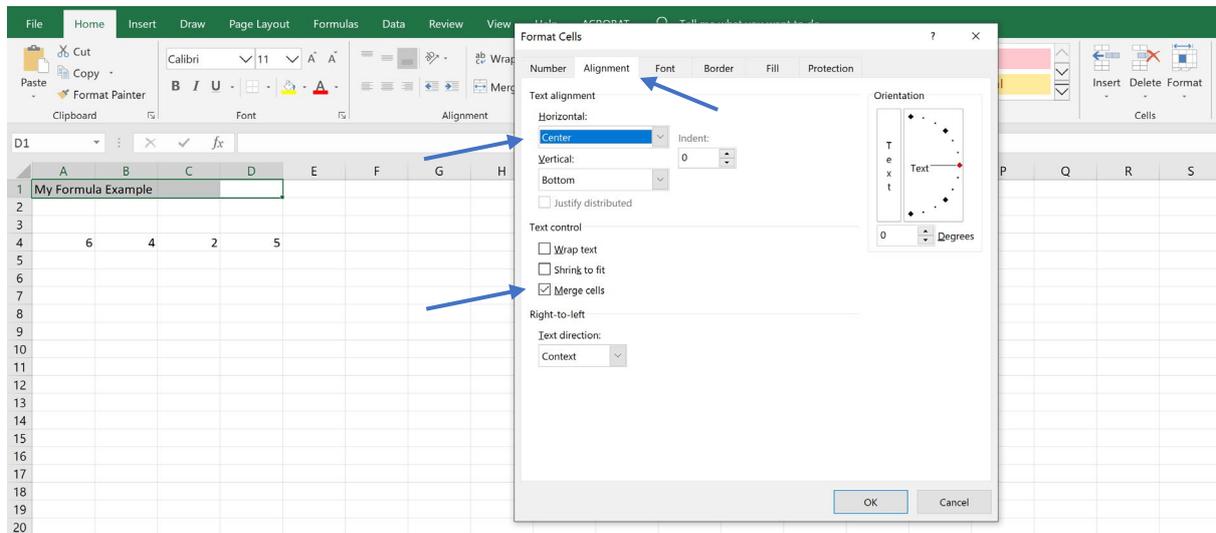
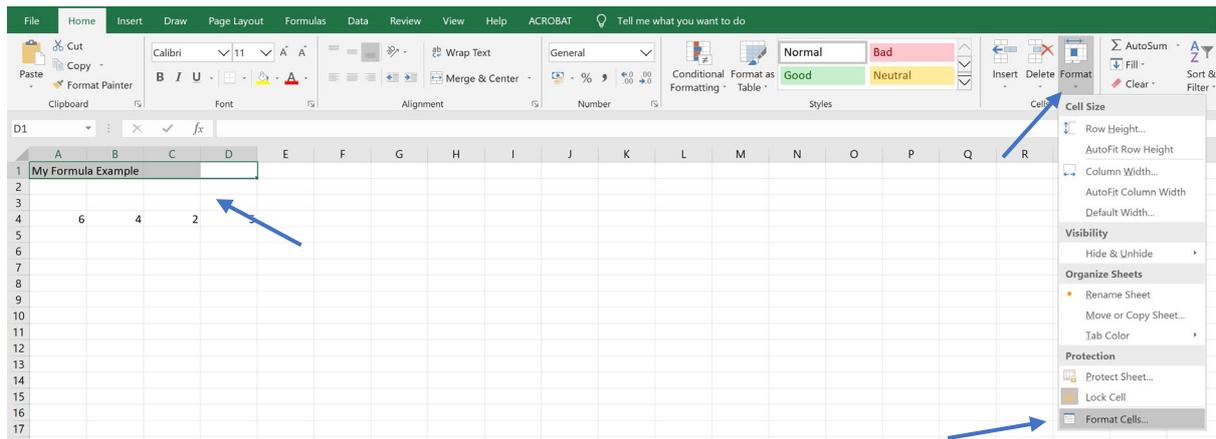
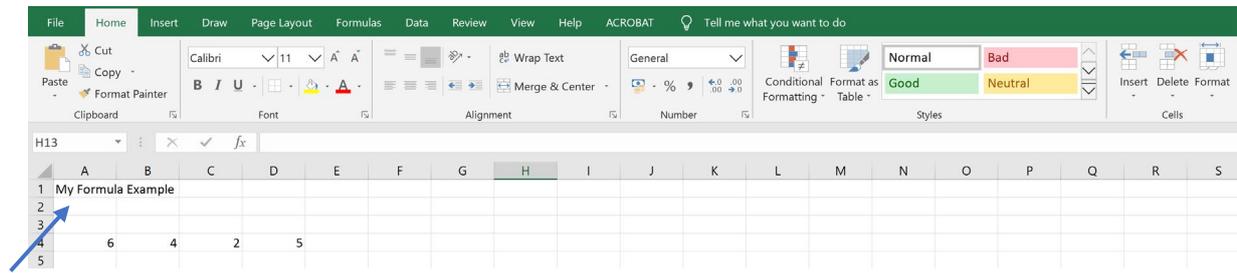


A **Format Cells** box with different formatting options will be displayed. To change the format of the numbers in the selected cells, click **Number** then select the type required. The number of decimal places which are displayed may also be selected.

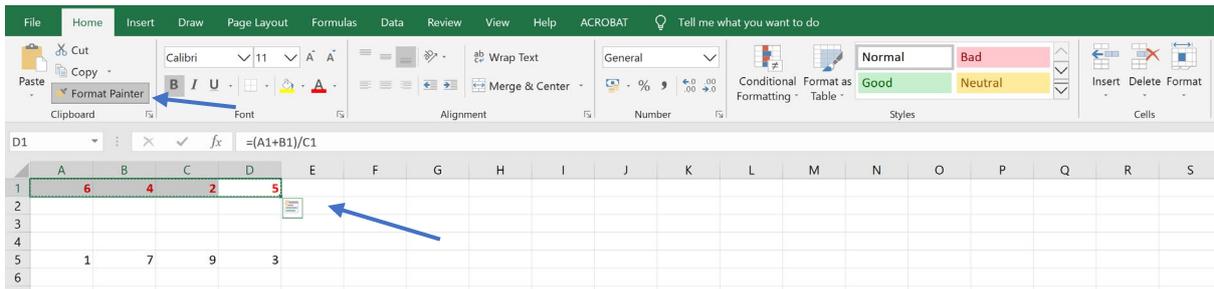


The alignment, font, border and fill colour of cells can be specified by clicking on the relevant tabs within the **Format Cells** box and selecting from the options provided.

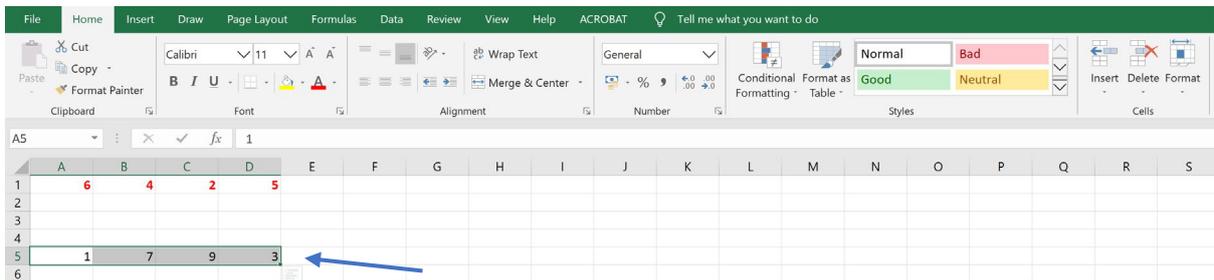
Other cell formatting tools are also available e.g. when a title at the top of a spreadsheet is required to be centred across the sheet, select the cells the title should fill then click **Home > Format > Format Cells > Merge > Centre**.



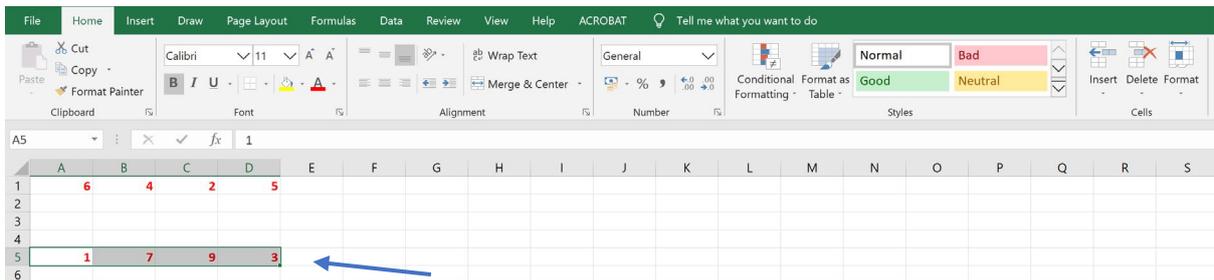
To copy the formatting of one area to another, select the cells to copy the formatting from then click **Home > Format Painter**.



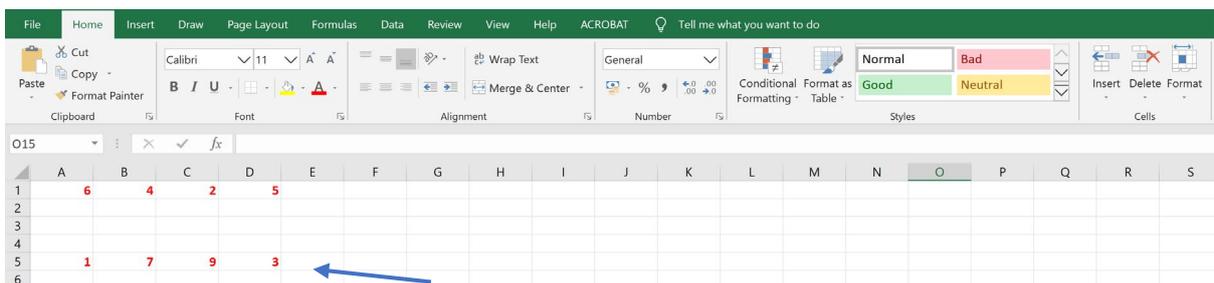
The mouse pointer will take on the appearance of a paintbrush. Now, select the cells the formatting is to be copied to.



The font size, style and colour will be applied to the selected cells.

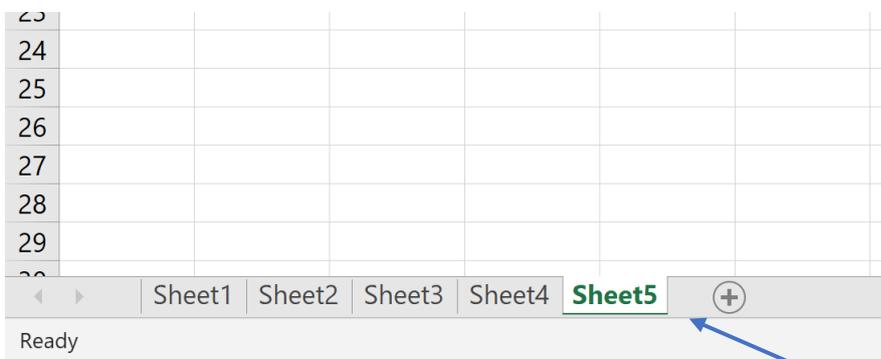
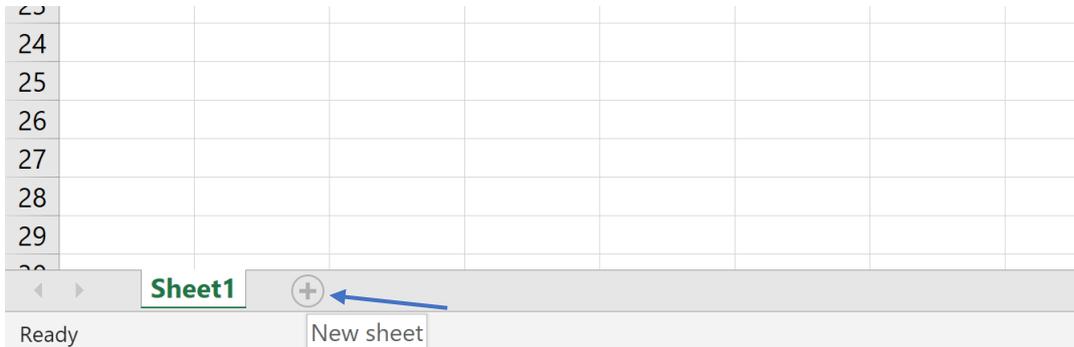


Click away from the cells to check the formatting has been painted onto the selected cells.

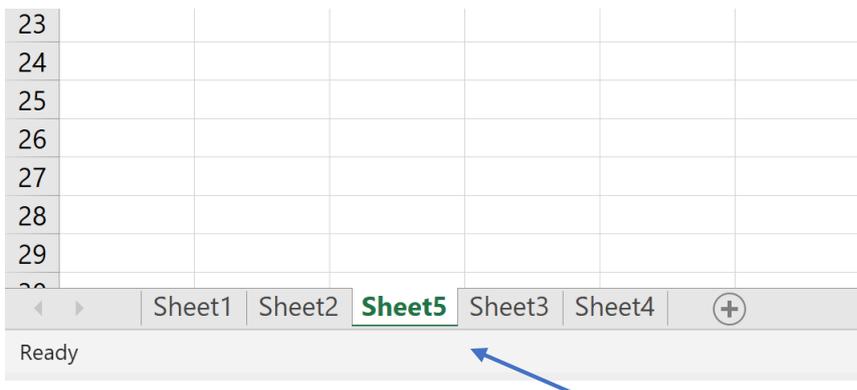


## Adding Worksheets

Click the + symbol at the bottom of the current worksheet to add another worksheet to an Excel workbook.

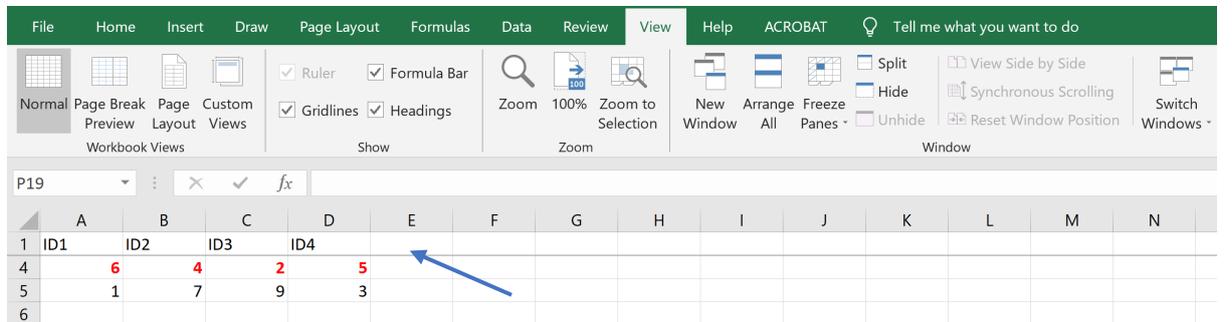
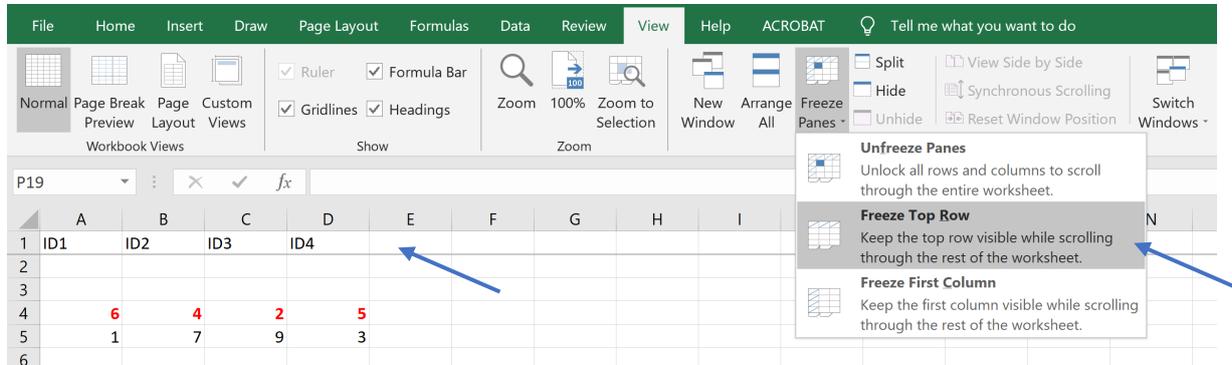


Worksheets can also be dragged into any order.

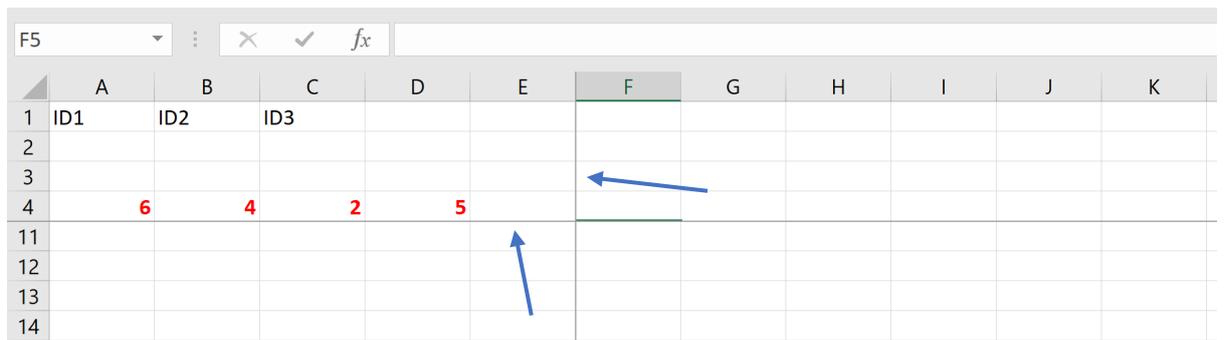
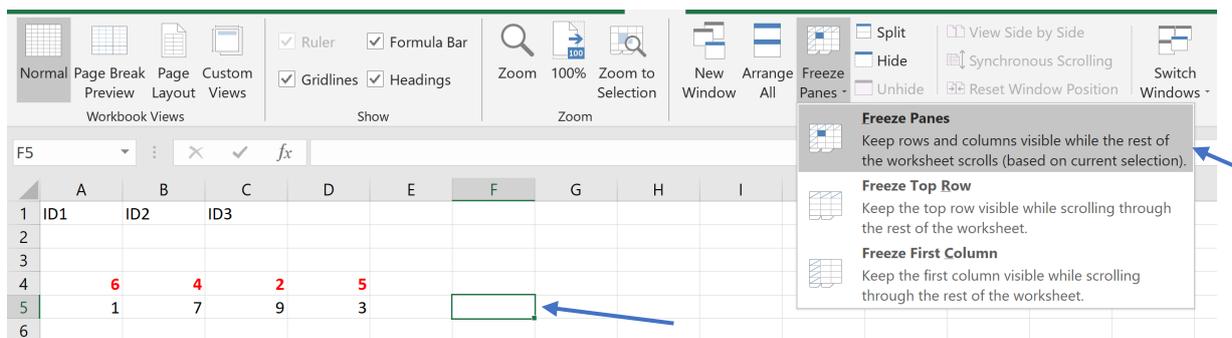


## Freezing Panes

When working with a worksheet containing many items, it may be useful to freeze the top row or first column to hold it in place when scrolling through the sheet. Click **View > Freeze Panes** then select **Freeze Top Row** or **Freeze First Column** - click **Unfreeze Panes** to remove the freezing action.

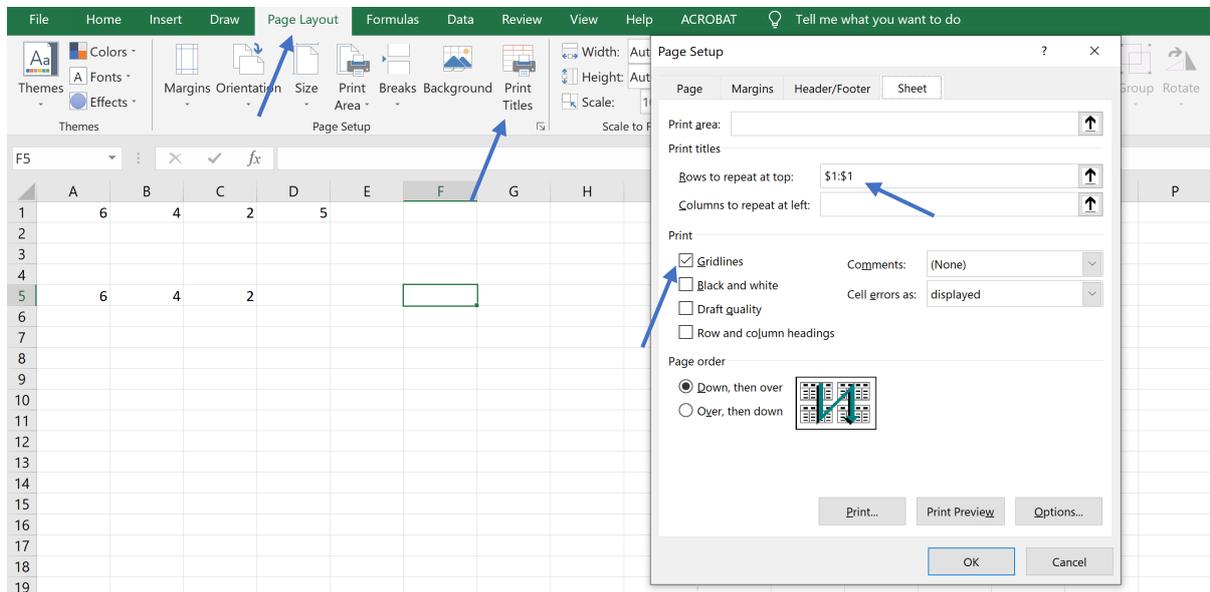


Clicking on a cell then selecting the **Freeze Panes** option will freeze all rows above and all columns to the left of the selected cell.



## Preparing for Output

Rows can be repeated when printing out worksheets to make data easier to understand when spread over several pages. Click **Page Layout > Print Titles** and state which rows or columns should be printed on every page; optionally state if gridlines are to be printed and select the orientation of the sheet through the **Page** tab. Click **Print Preview** to view how the page will look when printed.



The Excel printing options provide the choice to print an entire workbook, a single sheet or a highlighted section of cells.

