

# Open Learning Guide

**Microsoft<sup>®</sup> Excel<sup>®</sup> 2013**

**Introductory**

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# Section 4

# Formulas

By the end of this Section you should be able to:

Create Simple Formulas

Understand Mathematical Operators

Use Brackets

Display Percentages

Understand Ranges

Select Cells with the Mouse to Create Formulas

Use AutoSum

Check Formulas

## Exercise 28 - Introducing Formulas

### Guidelines:

A calculation in *Excel* is called a **Formula**. Formulas are used to calculate answers from numbers entered on the sheet, e.g. add total sales for the year, calculate net profit in a month, etc. Formulas automatically calculate results from the data. Usually, formulas use cell references, e.g. **B4**, rather than actual values. Then if the contents of the cells change, the formula will automatically recalculate using the new values. This allows results to be projected from different data, without having to change the formula.

All formulas begin with an equals sign (=), followed by the calculation.

### Actions:

1. Open the workbook **Maths**.
2. Make **B6** the active cell by clicking on it. To add the contents of **B4** and **B5**, type in **=b4+b5** (use the **+** symbol on the numeric keys at the right of the keyboard and do not add any spaces).

*Note: To use the numeric keypad for number entries, the **Num Lock** light must be on. If it is not on, press the **<Num Lock>** key.*

	A	B	C	D	E	F
1						
2						
3	Number	Add	Subtract	Multiply	Divide	
4	First	6	7	3	12	
5	Second	3	4	5	4	
6	Result	=b4+b5				

3. Press **<Enter>** to create the formula.
4. Click back on cell **B6** and note that the cell displays the result of the calculation, **9**, and the **Formula Bar** displays **=B4+B5**, the formula. *Excel* automatically converts all cell reference entries to uppercase regardless of how they are entered.

B6		: X ✓ f <sub>x</sub>		=B4+B5		
	A	B	C	D	E	F
1						
2						
3	Number	Add	Subtract	Multiply	Divide	
4	First	6	7	3	12	
5	Second	3	4	5	4	
6	Result	9				

5. Use **Save As** to save the workbook as **Maths2** and leave it open for the next exercise.

## Exercise 29 - Mathematical Operators

### Guidelines:

The basic mathematical operators are add, subtract, multiply and divide. The symbols on a keyboard are slightly different to those used normally and are:

- + Add**
- Subtract**
- \* Multiply**
- / Divide**

These symbols appear twice on the keyboard, one set placed around the main keyboard and the other set on the numeric keypad (right side). The numeric keypad is easier to use because the keys are closer together and the <Shift> key is not needed.

### Actions:

- The workbook **Maths2** should still be open from the previous exercise. If not, open it.
- Click in cell **C6** and enter the formula to subtract the two numbers above, **=c4-c5**. Complete the entry by pressing the right arrow key. The answer is displayed as **3**.
- In cell **D6**, enter the formula to multiply the two numbers above, **=d4\*d5**. Complete the entry by pressing the right arrow key. The answer is displayed as **15**.
- In cell **E6**, enter the formula to divide the two numbers above, **=e4/e5**. Complete the entry by pressing the right arrow key. The answer is displayed as **3**.

	A	B	C	D	E	F	G
1							
2							
3	Number	Add	Subtract	Multiply	Divide		
4	First	6	7	3	12		
5	Second	3	4	5	4		
6	Result	9	3	15	3		
7							

- Save the workbook with the same name.
- Leave the workbook open for the next exercise.

## Exercise 30 - Brackets


### Guidelines:

When more than one operator is used in a single formula, e.g. **D2+E7/E9**, then the order becomes important. *Excel* performs calculations in the following order: **B**rackets over **D**ivision, **M**ultiplication, **A**ddition and **S**ubtraction (the **BODMAS** theory). So in this example **E7** would be divided by **E9** then added to **D2**. Brackets are added to force *Excel* to perform calculations in a different order, i.e. the contents of brackets are always evaluated first.

### Actions:

1. The workbook **Maths2** should still be open from the previous exercise. If not, open it.
2. Click on cell **C10** and input the following data under the existing data.

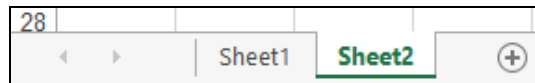
	A	B	C	D	E	F
1						
2						
3	Number	Add	Subtract	Multiply	Divide	
4	First	6	7	3	12	
5	Second	3	4	5	4	
6	Result	9	3	15	3	
7						
8						
9						
10			Item 1			
11		Sell Price	10			
12		Buy Price	6			
13		Sold	3			
14		Profit				

3. To calculate the profit, the buying price must be subtracted from the selling price and then multiplied by the number sold. Click on cell **C14** and type the formula **=c11-c12\*c13**.
4. Press **<Enter>** to complete the formula. The answer given is **-8** (this is because the multiplication is carried out before the subtraction: the **BODMAS** theory).
5. Click on cell **C14** and press the **<Delete>** key. This time add brackets around the subtraction. Type **=(c11-c12)\*c13 <Enter>**.
6. Check that the answer displayed is now **12**. Profit per item **10-6**, which is **4** multiplied by the number sold, **3**, giving the total profit of **12**. The answer is now correct.
7. Click the **New Sheet** button, , to the right of **Sheet1** (there can be more than one worksheet in each workbook).



## Exercise 30 - Continued

8. A new blank worksheet is added within the same workbook.



9. Enter the following spreadsheet, starting at cell **B2**.

	A	B	C
1			
2		Price (p)	Number
3		20	2
4		30	5
5			
6		Total (£)	

10. In cell **C6**, the total income will be calculated by multiplying the **Price** by **Number**, e.g. **20** by **2** and **30** by **5**, then adding these together, then dividing by **100** to give the price in **pounds**. Enter the formula **=B3\*C3+B4\*C4/100**.

A screenshot of the Excel spreadsheet showing the formula entered in cell C6. The formula bar at the top displays `=B3*C3+B4*C4/100`. The spreadsheet data is as follows:

	A	B	C	D	E	F
1						
2		Price (p)	Number			
3		20	2			
4		30	5			
5						
6		Total (£)	41.5			

11. The answer is **£41.50**, which is not correct. Brackets must be used to make sure *Excel* performs the calculations in the right order, e.g. the multiplications first, the addition second and the division last.
12. Click on cell **C6** and press the **<Delete>** key.
13. Now enter the correct formula, **=((B3\*C3)+(B4\*C4))/100** (Brackets are always used in matching pairs). Press **<Enter>** to complete the formula.

A screenshot of the Excel spreadsheet showing the corrected formula entered in cell C6. The formula bar at the top displays `=((B3*C3)+(B4*C4))/100`. The spreadsheet data is as follows:

	A	B	C	D	E	F
1						
2		Price (p)	Number			
3		20	2			
4		30	5			
5						
6		Total (£)	1.9			

*Note: When brackets appear inside other brackets, the inside brackets are always calculated first. Here, the two multiplications are calculated first, added together, and finally the division is performed.*

## Exercise 30 - Continued

14. Click the **Sheet1** tab.
15. Move to cell **D10** and add the label **Item 2**.
16. In cell **D11** add another **Sell Price** of **8**.
17. In **D12** enter a **Buy Price** of **5**.
18. In **D13** enter the number **Sold** as **10**.
19. In **D14** type **=**( to start the formula and instead of typing **d11**, point and click on the cell **D11** with the mouse.

	A	B	C	D	E	F
1						
2						
3	Number	Add	Subtract	Multiply	Divide	
4	First	6	7	3	12	
5	Second	3	4	5	4	
6	Result	9	3	15	3	
7						
8						
9						
10			Item	Item 2		
11		Sell Price	10	8		
12		Buy Price	6	5		
13		Sold	3	10		
14		Profit	12	=D11		
15						

20. Press the - key, then click on cell **D12**. Type **)** then **\*** followed by a click on cell **D13**. Press **<Enter>** to complete the formula.

D14		: X ✓ f <sub>x</sub>		=(D11-D12)*D13		
	A	B	C	D	E	F
1						
2						
3	Number	Add	Subtract	Multiply	Divide	
4	First	6	7	3	12	
5	Second	3	4	5	4	
6	Result	9	3	15	3	
7						
8						
9						
10			Item	Item 2		
11		Sell Price	10	8		
12		Buy Price	6	5		
13		Sold	3	10		
14		Profit	12	30		


The **Formula Bar** shows the formula and the cell shows the result

21. Save the workbook using the same file name, **Maths2**, then close it.

## Exercise 31 - Percentages

### Guidelines:


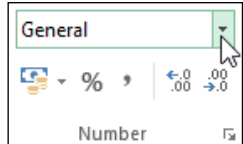
Percentages are displayed with a percentage symbol, e.g. 25%. A percentage is a fraction or decimal displayed differently. Percent means per hundred. 20% is 20/100 as a fraction or 0.2 as a decimal.

There is a **Percent Style** button, , that changes a decimal to a percentage.

### Actions:

1. Start a new workbook and create the following worksheet.

	A	B	C	D
1				
2		1st	2nd	Percentage
3		15	25	

2. To display the first number as a percentage of the second in **D3**, enter the formula **=B3/C3** using any method.
3. To format the answer as a percentage, click the **Percent Style** button, , found in the **Number** group on the **HOME** tab (this displays whole number percentage).
4. Change the second number from **25** to **27** and press **<Enter>**, notice that the percentage value changes automatically.
5. To display percentage with two decimal places, click cell **D3** and click the **Number Format** box drop down, and select the **Percentage** option from the list. The cell displays **55.56%**, a percentage to **2** decimal places.
 
6. Add the following data starting at cell **B5**.

	A	B	C	D	E
1					
2		1st	2nd	Percentage	
3		15	27	55.56%	
4					
5		Number	Percent	Answer	
6		20	50%		

*Note: To enter **50%** in cell **C6** type **50** followed by **<Shift 5>**.*

7. To find 50 percent of 20, in cell **D6** enter the formula **=B6\*C6**. The answer is **10** (half of 20 is 10).
8. Change the value in **B6** to **86** and in **C6** to **45%**. Press **<Enter>** to display the new answer, **38.7**.
9. Save the workbook as **Percentages** and close it.

## Exercise 32 - Ranges

### Guidelines:

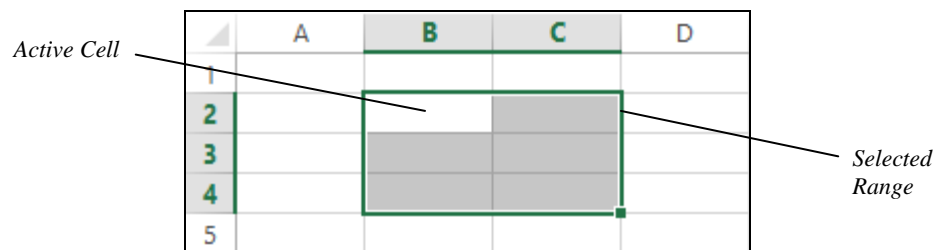
A **range** is a rectangular selection of cells. Just as a single cell is identified by a cell reference, ranges are identified by the cells of their outer limits, e.g. the four cells B2, B3, C2 and C3 are identified as the range **B2:C3**. Ranges are selected by clicking the mouse button and dragging to highlight a range of cells (known as **Click and Drag**).

Entire rows, columns, multiple rows, multiple columns and the entire worksheet can be selected using a similar technique.

Selections are made to allow the highlighted cells to be worked on, i.e. formatted, copied, moved, deleted, etc.

### Actions:

1. On a new worksheet click on cell **B2**. Click and drag down and to the right so that a range of six cells is highlighted, as shown below.



2. Release the mouse button. Notice that the first cell in the range remains white and the other cells are highlighted.
3. Selected ranges can be increased and decreased from the first cell in the range. Hold down the **<Shift>** key and select cell **E7**. The range is increased. Select cell **C2** while holding down **<Shift>** and the range is decreased.
4. Click anywhere on the worksheet to remove the highlighted range.
5. Select the range **B2:C3**. Press and hold down the **<Ctrl>** key. Click and drag the range **C5:D6**. Release the **<Ctrl>** key. There should now be two separate ranges highlighted.
6. Click anywhere on the sheet to remove the selected ranges.
7. Click on the **B** in the column border. Column **B** is now highlighted.
8. Click on any cell to remove the selection.
9. To select adjacent multiple columns, click in the column border and drag to select the required columns. Select columns **C** to **E**.

## Exercise 32 - Continued

	A	B	C	D	E	F
1						
2						
3						
4						

*These diagrams have been captured running Excel in Windows 8.x.*

10. To select multiple adjacent rows, click and drag in the row border. Click and drag from **3** to **5**. Several rows are highlighted.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					

11. Click anywhere to remove the highlight.
12. Non adjacent rows or columns can be selected using the same technique as for ranges, i.e. hold down the **<Ctrl>** key to select the separate part. Select rows **2** to **5** and **8** to **10**.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

13. Select columns **B**, **C** and **E**.
14. To select the entire worksheet, click the **Select All** button (to the left of **A** and above **1**).


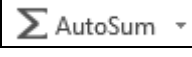
	A	B	C	D	E
1					
2					
3					
4					
5					

*Select All button* →


15. Click on any cell to remove the highlighting. Then close the workbook without saving.

## Exercise 33 - AutoSum


### Guidelines:

The most common formula is addition. This calculation is simplified by the creation of a **Function** called **Sum**. Functions (covered later) are pre-calculated formulas. **AutoSum** can be found on two **Ribbon** tabs, **HOME** and **FORMULAS**. The **HOME** tab has a  button in the **Editing** group and on the **FORMULAS** tab an **AutoSum** button, , in the **Function Library** group. **AutoSum** adds the contents of cells automatically.

### Actions:

1. Open the workbook **Computer Sales** (created in **Ex 22** and saved in **23**).
2. Click cell **B9**. The five cells above need to be added together to find the total. Enter the formula **=B4+B5+B6+B7+B8** (use the mouse to select each cell in turn instead of typing them). The answer should be **34**.
3. As more and more numbers are added this method becomes unworkable. There is a function called **SUM** that adds a continuous range of cells. This is so widely used that there is a button on the **Ribbon** to perform it automatically. Click on cell **C9**.
4. Click the **Sum** button, , in the **Editing** group on the **HOME** tab.

	A	B	C	D	E	F	
1	Computer Equipment sales						
2							
3	Sales	PCs	Printers	Scanners	Total Units		
4	John		9	3	2		
5	Natalie		5	5	4		
6	Asif		7	2	5		
7	Craig		10	1	0		
8	Alex		3	7	3		
9	Total		34	=SUM(C4:C8)			
10				SUM(number1, [number2], ...)			

5. The program looks for a range of numbers to add. By default, **Sum** selects any range of numbers directly above it (**C4:C8**). Press **<Enter>** to accept this and display the answer **18** in cell **C9**.
6. Click in cell **E4** and click the **Sum** button, . There are no numbers above **E4**, so **Sum** sums the range of cells **B4:D4**. Press **<Enter>** to accept this. The answer is **14**.

**Note:** **Sum** only works automatically with numbers already in the cells. If **Sum** has numbers in both directions it will sum upwards by default.

7. The other formulas are created later by copying. Save the workbook as **Computer Sales3** and close it.

## Exercise 34 - Checking Formulas

### Guidelines:

Spreadsheets are of little use if the formulas within them contain errors. All formulas within worksheets should be checked to make sure that they are accurate. This is not to check that *Excel* performs calculations correctly but to check that the correct cell references have been used.

### Actions:

1. Open the workbook **Equipment Sales**.
2. To check the formula in cell **B9**, click on the cell and check the formula in the **Formula Bar**, it should be **=SUM(B4:B8)**.
3. A more visual way to check a formula is to double click on the required cell. Double click on cell **C9**.

	A	B	C	D	E	F
1	Computer Equipment Sales					
2						
3	Sales	PCs	Printers	Scanners	Total Units	
4	John	9	3	2	14	
5	Natalie	5	5	4	14	
6	Asif	7	2	5	14	
7	Craig	10	1	0	11	
8	Alex	3	7	3	13	
9	Total	34	=SUM(C4:C8)		66	
10						
11						

4. The formula is displayed in the cell with colour coding to show which cells are used. After checking, press **<Enter>** or **<Esc>** to finish the editing.

*Note: Excel has placed a green triangle in D9 to indicate that this formula may be different from nearby formulas and therefore should be checked.*

5. Double click on cell **D9**. The display immediately shows up an error. Not all the cells in the column are included in the total. The formula could now be corrected. Editing cells is covered in the next section.

	A	B	C	D	E	F
1	Computer Equipment Sales					
2						
3	Sales	PCs	Printers	Scanners	Total Units	
4	John	9	3	2	14	
5	Natalie	5	5	4	14	
6	Asif	7	2	5	14	
7	Craig	10	1	0	11	
8	Alex	3	7	3	13	
9	Total	34	18	=SUM(D5:D8)		
10						
11						

6. Press the **<Esc>** key and then close **Equipment Sales** without saving.

## Exercise 35 - Revision: Formulas

1. Open the workbook **Formulas**. This worksheet shows the boxes of fruit sold by a street seller for the first three months of the year.

	A	B	C	D	E
1	Formulas				
2					
3	Fruit	Apples	Pears	Oranges	Total
4	Jan	36	38	26	
5	Feb	40	26	37	
6	Mar	53	23	84	
7	Total				
8	Retail Price	15	17	16	
9	Income				
10	Wholesale Price	10	11	11	
11	Net Profit				
12					

2. In cell **B7**, use the **AutoSum** button to calculate the total boxes of apples sold.
3. Calculate the total sales during January in cell **E4**.
4. Calculate the **Income** from **Apples** in cell **B9** (Total number sold x Retail Price).
5. Calculate the **Net Profit** from **Apples** in **B11** (calculate the profit for one box, use brackets around this calculation before multiplying by the Total number of boxes sold).
6. What are the values in cells **B7**, **E4**, **B9** and **B11**?

*Note: If this exercise proves difficult, the formulas can be checked by opening the **Fruit Sales** workbook and by clicking on the relevant cell to display the formula in the **Formula Bar**.*

7. Close the workbook without saving.

*Note: The answers are listed in the **Answers** section at the end of the guide.*



# Section 5

## Editing Cells

By the end of this Section you should be able to:

- Edit Cells by Overtyping
- Edit Data in the Formula Bar
  - Edit Data in a Cell
- Delete Cell Contents
- Use Undo and Redo

## Exercise 36 - Editing Cells

### Guidelines:

Changes can be made to cell contents in a variety of ways. The easiest way is to overwrite one entry with another. When a cell entry is long or complicated small changes can be made either in the **Formula Bar** or in the cell itself.

### Actions:

1. Start a new workbook and type **abcd** into cell **B7** and press <Enter>.
2. Click on cell **B7**. Type your first name and press <Enter> to replace **abcd** with your name. The contents of any cell can be overwritten in this way.
3. Click on cell **B7**. Type **Hello**, but BEFORE pressing <Enter> press <Esc>, the **Escape** key. This cancels the new input and leaves the cell contents unchanged.

Note: The **Cancel** button  on the **Formula Bar** can be used instead of <Esc> to cancel the new input.

4. Close the workbook without saving.
5. Open the workbook **CD Sales**.
6. Click on the cell to be changed, in this case **B5, Quarters**.
7. Enter the new data label, **Months** to replace **Quarters**.
8. Press <Enter> to complete the entry. The new information replaces the old.

	A	B	C	D	E	F
1						
2		<i>CD Sales Ltd.</i>				
3						
4						
5		<b>Months</b>	<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Fourth</b>
6		<b>Sales</b>	405	397	376	527
7		<b>Turnover</b>	£4,050	£3,970	£3,760	£5,270
8		<b>Profit</b>	£1,012.50	£992.50	£940.00	£1,317.50
9						

9. Click in cell **C6** and type **800**. This value replaces the original value. The calculated values in **C7** and **C8** change automatically.
10. Close the workbook **CD Sales** without saving.

## Exercise 37 - Editing in the Formula Bar

### Guidelines:

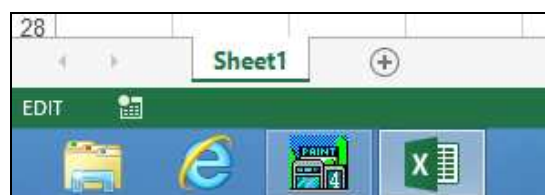
When a cell entry is long or complicated and only small changes are to be made, the changes can be made in the **Formula Bar** or in the cell itself (covered in the next exercise).

The following keys may then be used to move around and change the cell contents:

<Insert>	Insert key: Used to toggle (change) between <b>Insert</b> and <b>Overwrite</b> . When <b>Insert</b> is selected, the existing text moves to the right as new text is typed. When <b>Insert</b> is not selected the new information simply overwrites the old
<Delete>	Delete key: Removes the character following the cursor
<Backspace>	Backspace key: Erases the character immediately preceding the current cursor position
<Home>	Home key: Moves to the first character of the entry
<End>	End key: Moves to last character of entry
←	Left cursor: Moves the cursor left one character
→	Right cursor: Moves right one character
<Enter>	Enter key: Completes the entry

### Actions:

1. Open the workbook **Equipment Sales**.
2. Click in cell **A1**. Observe the cell contents in the **Formula Bar**. Click in the **Formula Bar** (the mode indicator on the **Status Bar** now shows **Edit**).



3. Using the features listed above, change **Equipment** to **Component**.

*Note: After editing, the <Enter> key must be used to complete the changes.*

4. Click on cell **D9**. The formula is incorrect, the range in the sum function should be **D4:D8**.
5. Click in the **Formula Bar** and move the cursor in front of the **5**.
6. Press <Delete> and type **4**. Press <Enter> to complete the change. The formula is changed and the calculated value in **D9** changes automatically.
7. Close the workbook without saving.

## Exercise 38 - In Cell Editing

### Guidelines:

As well as editing in the **Formula Bar**, cell content can be edited directly in the cell: **In Cell Editing**. A cursor is displayed in the cell itself and the process is then identical to editing in the **Formula Bar**. All the usual movement keys can be used to edit in the cell.

### Actions:

1. On a blank worksheet, enter your first name in cell **D6** and complete the entry.
2. Double click in cell **D6**. A cursor is displayed in the cell. If the cursor is not necessarily at the end of your name, use the **<End>** key to move to the end. Add a space and type your surname. Complete the entry by pressing **<Enter>**.
3. Make **D6** the active cell and press **<F2>**. The cursor is placed in the cell and editing can take place. This is an alternative to double clicking the cell.
4. Click and drag to highlight your first name. Press **<Delete>** to remove it. Press **<Enter>** to complete the entry.

*Note: Any part of a cell's contents can be formatted by clicking and dragging during the edit process. **Formatting** is covered in a later Section.*

5. Close the workbook without saving.
6. Open the workbook **Equipment Sales**.
7. Double click in cell **D9**. The formula is now displayed in the cell and the **Status Bar** displays **Edit**.

	A	B	C	D	E	F
1	Computer Equipment Sales					
2						
3	Sales	PCs	Printers	Scanners	Total Units	
4	John		9	3	2	14
5	Natalie		5	5	4	14
6	Asif		7	2	5	14
7	Craig		10	1	0	11
8	Alex		3	7	3	13
9	Total		34	18	=SUM(D5:D8)	
10						
11						


8. In the formula, change the **D5** reference to **D4** and press **<Enter>**. The formula is changed and the calculated value in **D9** changes automatically.
9. Close the workbook **Equipment Sales** without saving.

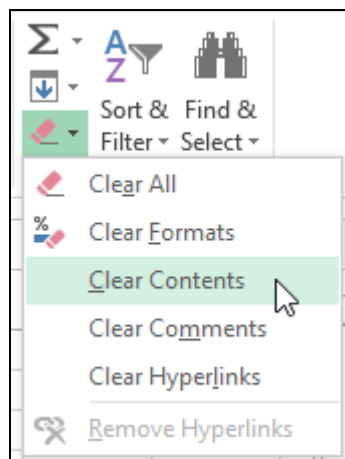
## Exercise 39 - Delete Cell Contents

### Guidelines:

Cell contents are erased by using the keyboard or the Ribbon.

### Actions:

1. Start a new workbook.
2. Enter a number into cell **B4** and erase it by clicking on the cell and then pressing the <Delete> key.
3. Enter any two numbers into cells **B2** and **B3**.
4. Click on cell **B2**.
5. Click the **Clear** button, , in the **Editing** group on the **HOME** tab and select **Clear Contents**.



*Note: Selecting **Clear All** clears **Contents, Formatting, Comments** and any **Hyperlinks** from the cell/s.*


6. The cell is now blank, the contents have been cleared. Clear the **Contents** of cell **B3**.
7. Close the workbook without saving.

## Exercise 40 - Undo and Redo





### Guidelines:

As it is so easy to remove the contents of a cell, *Excel* has **Undo** to reverse any mistakes that may have been made. After undoing the action, it can be redone, if necessary, using **Redo**.

### Actions:

1. Open the workbook **CD Sales**.
2. Click in cell **E6** and press <**Delete**> to remove the cell contents.
3. Now delete the contents of cell **F6**.
4. Click the **Undo** button, , on the **Quick Access Toolbar**, to reverse the last action, i.e. put the contents back in **F6**.

*Note: The exact wording displayed on the **Tooltip** after **Undo** is dependent on the action that has just been carried out.*

5. Click the **Undo** button, , to replace the deletion before last.
6. After undoing an action, it can be redone by clicking the **Redo** button, . Click the **Redo** button, , to reverse the last action, the **Undo**.
7. Use **Undo** to return the worksheet to its original state.
8. Delete the contents of cells **B5**, **C5**, **D5**, **E5** and **F5** one at a time. All actions that can be undone are stored in the **Undo** history.
9. To use this, click the drop down list next to the **Undo** button, . Click and drag to **Clear** and **Undo 5 Actions**. The 5 deletions are restored.



10. Close the workbook **CD Sales** without saving the changes.

## Exercise 41 - Revision: Editing Cells

1. Open the workbook **Payroll**. This is used to calculate the weekly wages for a small company. The calculations in this worksheet, although complicated have been simplified and are therefore not entirely accurate.
2. Click cell **B6** and view the formula **B2\*B3** in the **Formula Bar**.
3. Column **K** is named **Spare**. Click on cell **K1** and delete the contents.
4. Enter your **Surname** in cell **K1**.
5. Click on cell **K2** enter **5** as the hourly rate of pay.
6. In cell **K3** enter **35** as the normal working hours and in **K4** enter **40** as your worked hours (5 hours of overtime in your first week! Very keen).
7. Double click in cell **K5**, edit the **Tax Code** in the cell to **350L**. The **Net Pay** in cell **K11** should be **£161.58**.
8. In cell **F1** the name **Stephenson** is not the correct spelling. Make **F1** the active cell and type **Stevenson** to overwrite the original.
9. Delete the contents of cell **F8**.
10. The contents of cell **F8** were deleted in error. Undo the last action.
11. Click on cell **F10** to display the formula for calculating the **Income Tax**. Look in the **Formula Bar** to view the formula. Fortunately this advanced formula is correct and does not need editing.
12. The **Income Tax** rate has been reduced from 25 pence in the pound to 22 pence. Change **25** in cell **B14** to **22**. Everyone's net pay will increase.
13. Close the workbook without saving.