



Asst. Lect. Raghda M. Alshemari



Lecture 11

2021 – 2022

TYPING SIMPLE FORMULAS IN A WORKSHEET

The whole idea behind Excel is to get it to perform calculations. In order for it to do this you need to type *formulas* in the worksheet. Usually these formulas reference existing numbers, or

even other formulas, already in the worksheet using the cell addresses of these numbers rather than the actual value in them. Formulas must be typed beginning with an equal sign (=).

Try This Yourself:

Continue using the previous file with this exercise...

- 1 Click in cell **B8** to make this the active cell
- 2 Type **=B3+B4+B5+B6+B7** and examine what is happening on the screen
- 3 Press **Tab** to enter the formula and move to the next cell

Notice that a calculation has now been performed. We have entered a formula in B8 that says “add the values in B3, B4, B5, B6, and B7 and show them here”...

2

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E
1					
2		UK	AUS	NZ	SPAIN
3	Garden Setti	17200	17850	18100	63598
4	Pool Covers	21412	25942	24944	53624
5	Fountains	20824	31288	37456	48569
6	Large Tubs	20722	29782	35963	25126
7	Fencing	49254	64750	125811	75863
8		=B3+B4+B5+B6+B7			
9					

The formula bar at the top shows the formula `=B3+B4+B5+B6+B7` being entered into cell B8. The formula is highlighted in the cell, and the SUMIF dropdown menu is visible above the formula bar.


3

The screenshot shows the same Excel spreadsheet as above, but now the formula in cell B8 has been executed. The result is displayed in the cell:

	A	B	C	D	E
1					
2		UK	AUS	NZ	SPAIN
3	Garden Setti	17200	17850	18100	63598
4	Pool Covers	21412	25942	24944	53624
5	Fountains	20824	31288	37456	48569
6	Large Tubs	20722	29782	35963	25126
7	Fencing	49254	64750	125811	75863
8		129412			
9					
10					

The formula bar is empty, and the active cell is now C8. The result of the formula, 129412, is displayed in cell B8.

4

Ensure that **C8** is the active cell, type **=SUM(C3:C7)** and press 

This is an alternative type of formula known as a “function”. Again a calculation will appear in the cell...


5

Click in cell **B8** and notice that the formula you typed appears in the Formula Bar, while the result of the calculation appears in the worksheet

6

Repeat step 5 with cell **C8**

7

Click on the **File Tab**  and select **Save** to save the additions that have been made

5

B8		fx =B3+B4+B5+B6+B7				
	A	B	C	D	E	
1						
2		UK	AUS	NZ	SPAIN	
3	Garden Setti	17200	17850	18100	63598	
4	Pool Covers	21412	25942	24944	53624	
5	Fountains	20824	31288	37456	48569	
6	Large Tubs	20722	29782	35963	25126	
7	Fencing	49254	64750	125811	75863	
8		129412	169612			
9						

6

C8		fx =SUM(C3:C7)				
	A	B	C	D	E	
1						
2		UK	AUS	NZ	SPAIN	
3	Garden Setti	17200	17850	18100	63598	
4	Pool Covers	21412	25942	24944	53624	
5	Fountains	20824	31288	37456	48569	
6	Large Tubs	20722	29782	35963	25126	
7	Fencing	49254	64750	125811	75863	
8		129412	169612			
9						

FILLING A SERIES

A **series** refers to a sequence of ordered entries in adjacent cells, such as the days of the week or months of the year. The **fill** technique can be used to create these in a worksheet for you,

reducing the amount of time taken for data entry, and ensuring that the spelling is correct. Excel provides days and months as special built-in **series** that you can access.

Try This Yourself:

Open
File

Before starting this exercise you MUST open the file E707 Filling_1.xlsx...

1

Click on cell **A4**

2

Move the mouse pointer to the small square (the **fill handle**) at the bottom right corner of the cell until the mouse pointer appears as a thin, black cross

3

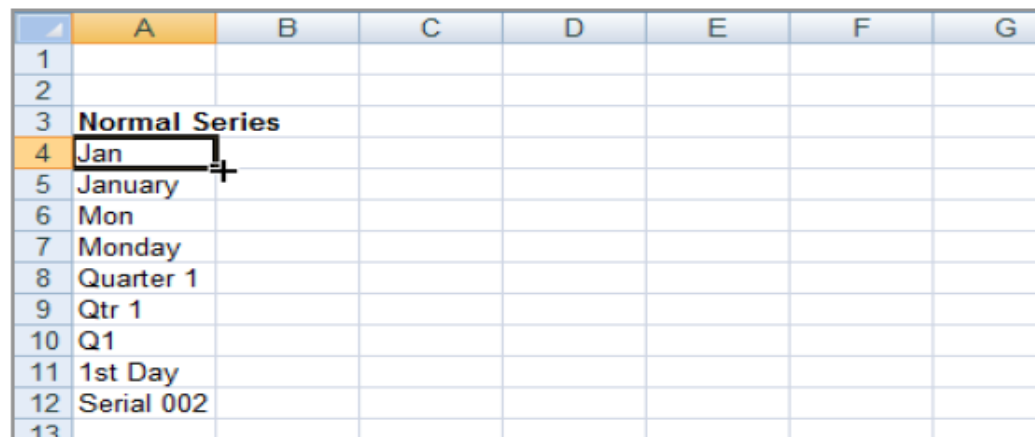
Drag the mouse pointer to column **F**

Excel will fill the range with the first six months of the year...

4

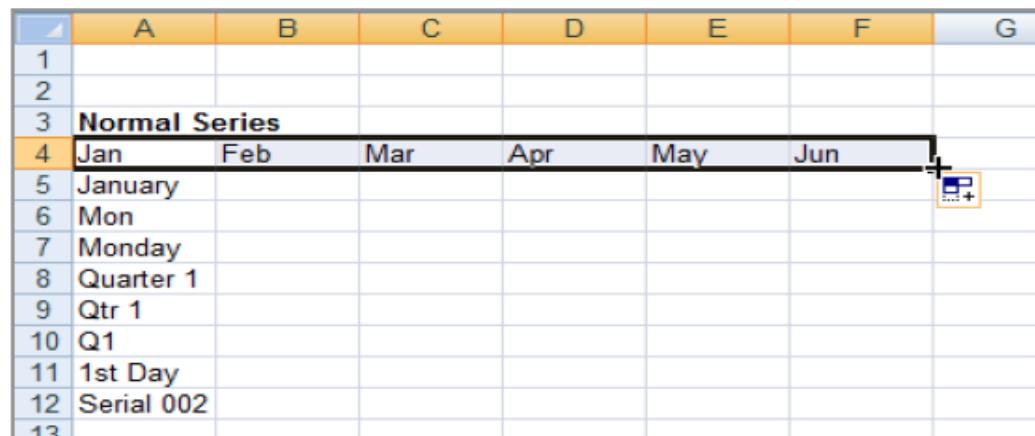
Click on cell **A5** and repeat steps **2** and **3** to create the series of months with their full names

2



A screenshot of an Excel spreadsheet. The active cell is A4, which contains the text 'Jan'. A small black cross (the fill handle) is positioned at the bottom-right corner of cell A4. The spreadsheet has columns A through G and rows 1 through 13. The text 'Normal Series' is visible in cell A3. Other cells in column A contain: 'January' (A5), 'Mon' (A6), 'Monday' (A7), 'Quarter 1' (A8), 'Qtr 1' (A9), 'Q1' (A10), '1st Day' (A11), and 'Serial 002' (A12).

3



A screenshot of the same Excel spreadsheet. The range A4:F4 is now filled with the first six months of the year: 'Jan', 'Feb', 'Mar', 'Apr', 'May', and 'Jun'. The fill handle is now at the bottom-right corner of cell F4. The rest of the spreadsheet remains the same as in the previous screenshot.



A partial screenshot of the Excel spreadsheet showing the bottom of the grid with columns A through G and row 13.

You can also fill more than one row at a time...

5

Select the range **A6:A12**

6

Repeat steps 2 and 3 to fill across to column **F**

7

Examine each of the series created by the filling process

6

	A	B	C	D	E	F	G
1							
2							
3	Normal Series						
4	Jan	Feb	Mar	Apr	May	Jun	
5	January	February	March	April	May	June	
6	Mon	Tue	Wed	Thu	Fri	Sat	
7	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
8	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	
9	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
10	Q1	Q2	Q3	Q4	Q1	Q2	
11	1st Day	2nd Day	3rd Day	4th Day	5th Day	6th Day	
12	Serial 002	Serial 003	Serial 004	Serial 005	Serial 006	Serial 007	
13							
14	Growth Series						

For Your Reference...

To *fill* a *series*:

1. Click on the first cell in the series
2. Drag from the fill handle across as many columns as required

Handy to Know...

- As you drag the fill handle across, a *tool tip* appears below the fill pointer displaying the current value in the series. This is really handy when you want to end on a particular month, day or value.

A new worksheet named *Sheet2* will be inserted. You can also use the keyboard shortcut...

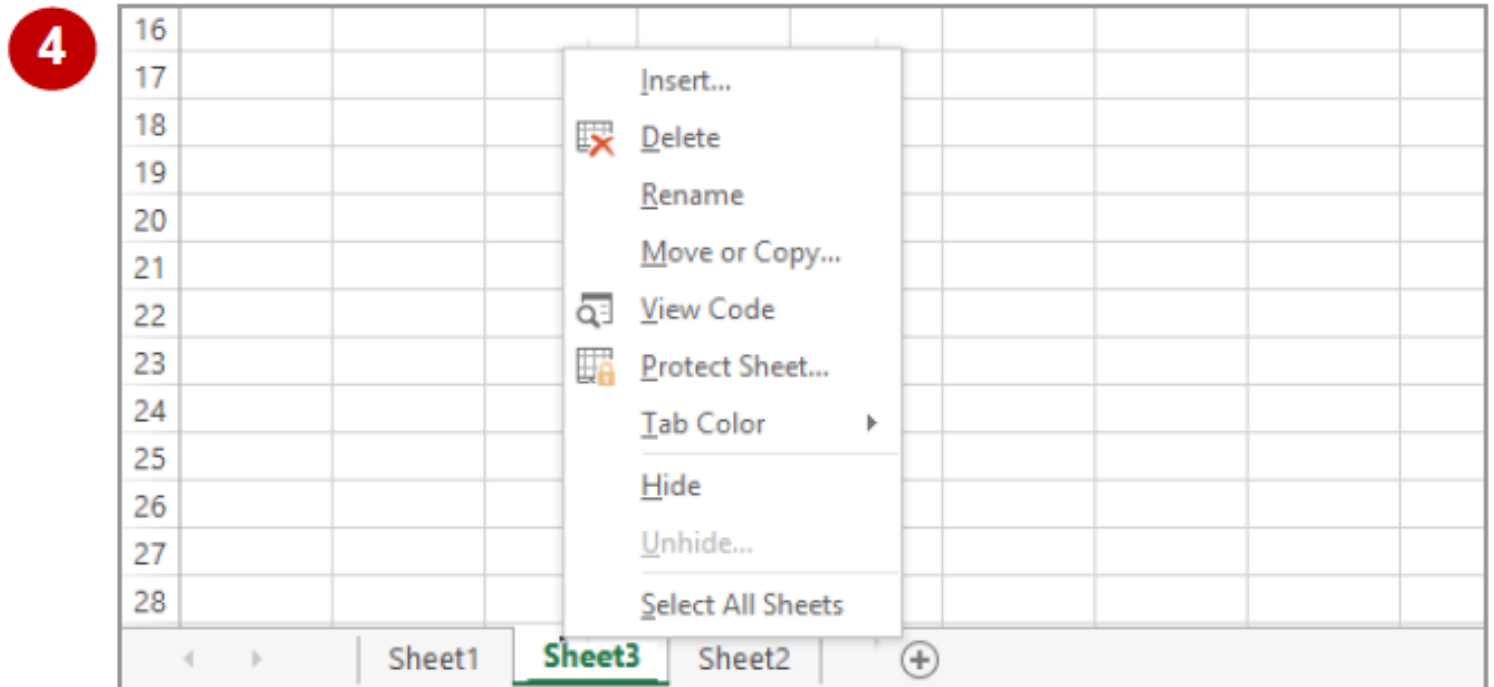
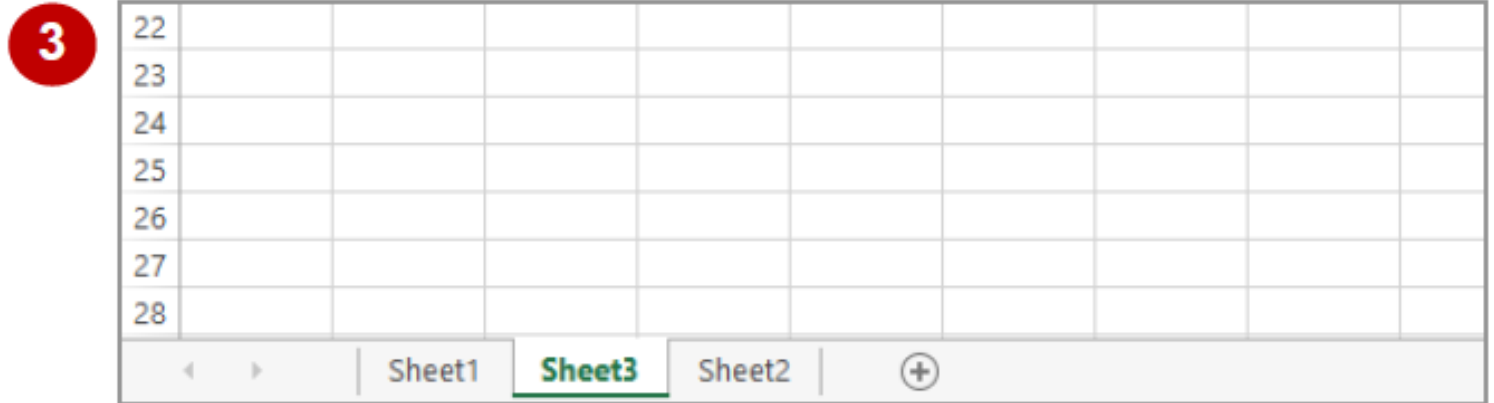
3 Press **Shift** + **F11** to insert another new worksheet

This sheet is named Sheet3 and is inserted before the currently selected sheet. Now let's delete a sheet...

4 Right-click on the **Sheet3** worksheet tab to display the shortcut menu

5 Select **Delete** to remove the worksheet

As the worksheet contains no data, the sheet will be deleted immediately. If a

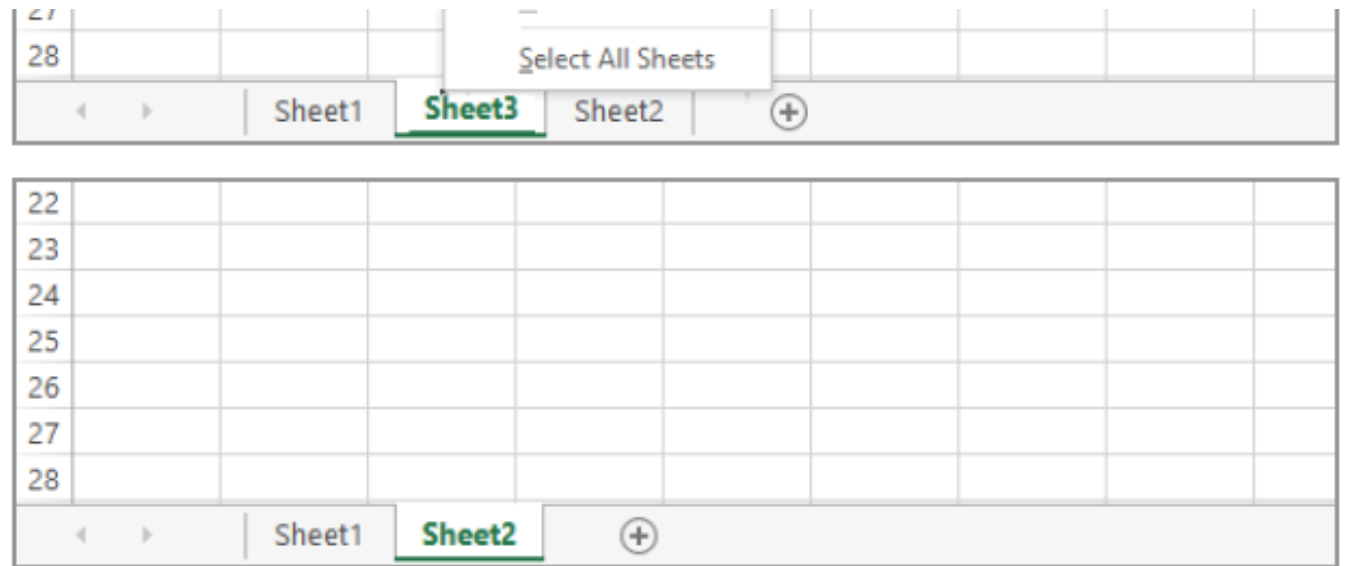


As the worksheet contains no data, the sheet will be deleted immediately. If a worksheet contains data, Excel will ask you to confirm your actions...

6

Repeat steps **4** and **5** to delete **Sheet2**

5



For Your Reference...

To *insert* a *new worksheet* into a *workbook*:

- Click on the **New Sheet** icon to the right of the worksheet tabs

To *delete* a *worksheet* from a *workbook*:

- Right click on the worksheet tab, then select **Delete**

Handy to Know...

- To insert a worksheet between existing worksheets, right-click on the worksheet tab before which you want to insert a new sheet, then click on **Insert** to display the **Insert** dialog box. Select **Worksheet** and click on **[OK]**.

COPYING A WORKSHEET

Just as you can copy the contents of cells and ranges within a worksheet, you can **duplicate** worksheets within a workbook. This technique is ideal for replicating layouts. For example, if you

have a budget workbook that contains data for several departments, you can create a worksheet for the first department and then copy it to create identical worksheets for other departments.

Try This Yourself:

Same
File

Continue using the previous file with this exercise, or open the file *E1324 Worksheet Techniques_1.xlsx...*

1

Right-click on **Sheet1** to display the worksheet shortcut menu

1

16	Water	544	655	444	555	2,198
17	Insurance			-	-	3,566
18	Tea/Coffee			322	311	1,410
19	Postage			223	322	1,112
20	Stationary			45	67	268
21	Council Rates			1,125	1,125	4,500
22	Motor Vehicles			8,777	766	11,306
23	Entertainment			666	555	2,331
24						
25	Overheads			13,589	5,334	33,866
26						
27	Total			38,300	31,155	129,729
28						

2 Select **Move or Copy** to display the *Move or Copy* dialog box

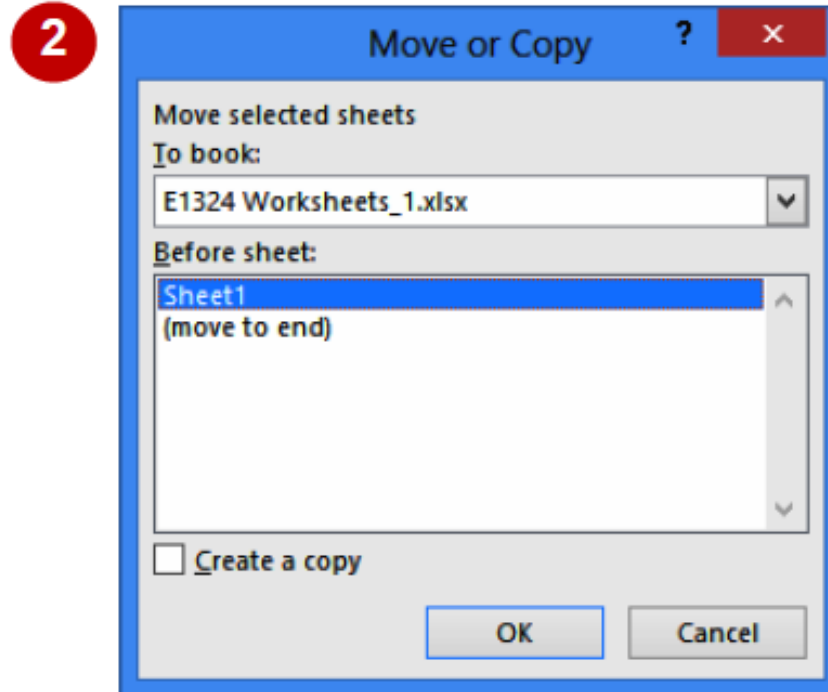
3 Click on **Create a copy** so it appears ticked, then click on **[OK]**

The new worksheet is named Sheet1 (2). Let's create a "template" from this worksheet by deleting unwanted data...

4 Select the range **B7:E9**, then press **[Del]** to clear it

5 Repeat step 4 to clear the ranges **B14:E23**, **G7:J9** and **G14:J23**, then press **[Ctrl]** + **[Home]** to return to cell **A1**

Now we can copy this "template" to create additional worksheets...



3

22	Motor Vehicles	987	776	8,777	766	11,306
23	Entertainment	455	655	666	555	2,331
24						
25	Overheads	9,122	5,821	13,589	5,334	33,866
26						
27	Total	25,343	34,931	38,300	31,155	129,729
28						

Sheet1 (2) Sheet1 +

6

Repeat steps **1** to **3** three times to create three copies of the *template* worksheet – this time without data

The final worksheet should be named Sheet1 (5)

6

22	<i>Motor Vehicles</i>	987	776	8,777	766	11,306
23	<i>Entertainment</i>	455	655	666	555	2,331
24						
25	Overheads	9,122	5,821	13,589	5,334	33,866
26						
27	Total	25,343	34,931	38,300	31,155	129,729
28						

Sheet navigation: Sheet1 (5) | Sheet1 (4) | Sheet1 (3) | Sheet1 (2) | Sheet1 ... (+)

For Your Reference...

To *copy* a *worksheet*:

1. Right-click on the worksheet to copy, then select ***Move or Copy***
2. Click on ***Create a copy*** so it appears ticked
3. Click on **[OK]**

Handy to Know...

- You can copy the current worksheet using the **HOME** tab by clicking on ***Format*** in the ***Cells*** group, then clicking on ***Move or Copy Sheet***.
- The ***Before sheet*** options in the ***Move or Copy*** dialog box allow you to position the copied worksheet where you want.



Thank You