Edge Hill University

Getting Started with Microsoft Excel | Excel Basics

Contents

Inserting and Editing Data	2
AutoFill	2
Adding Cells	3
AutoSum	4
Subtracting, Multiplying or Dividing Cells	5
Formula Order (BODMAS)	7
Average	8
Max and Min	9
Checking a Formula	10
Formula Errors	11
Formatting Cells	12
Adding Worksheets	15
Freezing Panes	16
Preparing for Output	17

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.

File	Home	Insert	Draw	Page Layou	t Formula	s Data	Review	View	Help	ACRO	OBAT	γī	ell me w	hat you want t	o do							
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1	100																			Щ І	nsert Sheet	
2																						

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.

B1		• : ×	✓ f:	x Februa	ary					
	А	В	С	D	E	F	G	Н	I	J
1	January	February								
2										
3										

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

B1		• : ×	. ✓ f:	x Febru	ary				
	А	В	С	D	E	F	G	Н	I
1	January	February	March	April	May	June	July	August	
2									

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.

	А	В	С	D	E	F	G	Н	I.
1	2	4	6						
2									
3									
	А	В	С	D	E	F	G	Н	
1	2	4	6	8	10	12	14	16	18
2									
3									

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

F2	•	: ×	✓ fx	=A2+B	2+C2+D2+E	2		
	А	В	с	D	Е	F	G	Н
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)

F2		• : ×	✓ fx	=SUM	(A2:E2)			
	А	В	с	D	E	F	G	Н
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**.

Fi	le	Hom	e Ir	nsert	Draw	Ра	ge Layoı	ut	Formu	las	Data	Review	Viev	v Help
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In	sert	Autos	Sum Re	cently	/ Financia	l Logic	al Text	Da	ate & Lo	ookup	& Ma	ath & Mo	re	Name
Fun	ction	-	U	sed -	*	-	*	Ti	me * Re	ferenc	re - Tr	rig - Functi	ons 🔹	Manager
						Funct	ion Libra	ry						
CI IN	Л			×		fre		(12)	E2)					
301	/1	•			•	JX	-30101	(AZ.	[2]					
	А		В		С		D		Е		F	G	Н	
1														
2		2		4		6	8		10	=SUN	<mark>Л(А2</mark> :Е	2)		
3									1	SU	M(num	iber1 , [num	ber2],)	
4														
5									•					
6														

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

File		Home	Insert	Draw	Page Layoı	ıt Formu	las Data	Review	View	Help
fx		Σ	*		? A		Q	θ		
Inse	rt /	AutoSur	n Recently	y Financial I	Logical Text	Date & Lo	ookup & Ma	ath & Moi	re Na	ame
Functi	ion	*	Used -	Ŧ	▼ ▼	Time * Re	ference • Tr	rig • Functio	ons 🛀 Ma	nager 🗎
					Function Librar	У				
F3		-	: ×	√f	x					
	А		В	С	D	E	F	G	Н	
1										
2		2	4	6	8	10	30			
3										
4										
_										

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



-				
2	10			
3	2			
4	8	×		
5				

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

/1	• : ×	✓ f:	x =A2*A	.3	
А	В	С	D	E	F
10					
2					
=A2*A3 🚽					
	1 A 10 2 =A2*A3	1 • : × A B 10 2 =A2*A3	1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

A4		• : ×	✓ f:	« =A2*A	.3	
	А	В	С	D	E	F
1						
2	10					
3	2					
4	20	×				
5						

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

SUI	N .	• : ×	✓ f	=A2/A	3	
	А	В	С	D	Е	F
1						
2	10					
3	2					
4	=A2/A3					
5						
A4		- : X	 ✓ 1 	x = A2/A	3	
A4		• : ×	✓ f	x =A2/A	3	
A4	A	• : × B	✓ ƒ C	x =A2/A D	3 E	F
A4	A	• : × B	✓ ƒ C	x =A2/A D	3 E	F
A4 1 2	A 10	B	✓ ƒ C	x =A2/A D	3 E	F
A4 1 2 3	A 10 2	B	✓ ƒ C	x =A2/A D	3 E	F
A4 1 2 3 4	A 10 2 5	B	✓ ƒ C	x =A2/A D	3 E	F

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

D1		• : ×	✓ f>	c =(A1+I	B1)/C1			
	А	В	С	D	Ę	F	G	Н
1	6	4	2	5				
2				1				
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.

File	Home	Insert	Draw	Page	Layout	Form	nulas	Data	Review	v View	v Help	AC
<i>fx</i>	AutoSum	Recently	Financia	?	A						Name	€ Def i <i>¶</i> x Use
Function	Autosum	Used *	- inancia			Time -	Referen	ce Tr	ig - Func	tions -	Manager	🔐 Crea
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F1	Ave	erage		fx								
A	<u></u> Οι	unt Numb	ers	D		E		F	G	Н		I
1	<u>M</u> ax	x		6	8	1	.0					
2	Min	ı										
3	Мо	ro Eunctio	nc									
4	1010		115									
5												

SU	Μ	• I	\times \checkmark	fx	=AVER	AGE(A1:E1)			
	А	В	C		D	E	F	G	Н	I
1	2		4	6	8	10	=AVERAGE	(A1:E1)		
2							AVERAGE	_ (number1, [I	number2],)	
3			1							
4										

F1		• : ×	 ✓ f: 	x =AVER	RAGE(A1:E1)			
	А	В	С	D	Е	F	G	Н	I
1	2	4	6	8	10	6	1		
2						1			
3									
4									

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.

File	Hor	ne	Insert	Draw	F	Page	Layout	Fo	rmulas	Dat	a R	leview	View	Help	ACI
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Insert Functior	Auto	oSum ∙	Recently Used -	Financia	l Log	jical ,	Text	Date 8 Time *	Look Refer	kup & N Tence *	∕lath & Trig ∙	More Functio	e ns •	Name Manager	Crea
/	Σ	<u>S</u> um	ı		Fur	nction	Library								Defined
F1		<u>A</u> ve	rage		fx										
	A	<u>C</u> ou	nt Numb	ers		D		E		F		G	н		I
1	*	<u>M</u> ax	[6		8		10]				
2		Min							/	1					
3 4		Mor	e <u>F</u> unctic	ons											
5															

SU	M	- : ×	✓ f.	x =MAX	(A1:E1)				
	А	В	С	D	Е	F	G	н	I
1	2	4	6	8	10	=MAX(A1:	E1)		
2						MAX(nun	nber1 , [numl	oer2],)	
3			1						
4									

F1		•	×	~	fx	=MA	X(A1:E1)					
	А	В		С		D	E		F	G	Н	I
1	2		4		6	;	3	10	10			
2									1			
3												
4									•			

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.

SU	M	- : ×	🖌 🖌 fo	c =MAX	(A1:E1)				
	А	В	С	D	Е	F	G	Н	I
1	2	4	6	8	10	=MAX(<mark>A1:</mark> E	1)		
2					/	MAX(num	. 1ber1 , [numb	oer2],)	
3			1						
4									

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.

D1		• : ×	✓ fx	=(A1+E	31)/C1				
	А	В	С	D	Е	F	G	Н	I
1	6	4	• 0	#DIV/0!					
2				1					
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.

D1		• : ×	✓ fx	=(A1+	31)/C1				
	А	В	С	D	Е	F	G	Н	I
1	6	4	н 🜗 🏻	#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 Cells** (alternatively, right-click on the selected cells then click **Format Cells**).

File	Home	Insert	Draw	Page L	ayout Fo	ormulas	Data	Review		Help AG	CROBAT	🖓 Tell me w	hat you want							
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A1	÷	: ×	~	<i>fx</i> 6																C Row Height
1 2 3 4 5 6 7 8 9 10 11	A 6	B 4	С	2	5		F	G	Н	l	J	K	L	M	Ν	0	P	Q	R	AutoFit Row Height AutoFit Row Height Column Width AutoFit Column Width Default Width Hide & Unhide Column AutoFit Colum
12																				Protection
14 15 16 17																				Lock Cell 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.

File	Home	e Insert	Draw	Page Layout	Formulas	Data	Review	View	Liste ACDODAT O Tell menubeturing de	
Paste	🔏 Cut 🗎 Copy 🝼 Form	, at Painter	Calibri B I L	∨11 \ ↓ · ⊞ · ⊘	A Ă Ă		≫ - ■ ●	^{ab} Wrap → Merc	Number Alignment Font Border Fill Protection	
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A1	*	1 ×	 ✓ 	^f x 6				1	Currency Accounting	
	А	В	С	D	E	F	G	Н	Date P	
1	6	4	2	5					Percentage Fraction Negative numbers:	
3 4									Scientific -1234.10 1234.10	
5									Special -1234.10 Custom -1234.10	
7										
8										
10										
11									· ·	
13									Number is used for general display of numbers. Currency and Accounting offer specialized formatting	
14									for monetary value.	
16										
17										
18									OK Cancel	
20										

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.



6

4

5

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

File	Hom	e Inse	t Draw	Page Layou	t Formulas	Data F	Review	View He	elp AC	ROBAT Ç	> Tell me w	hat you want to	o do						
Paste	🔏 Cut		Calibri B I	✓11	× A A	= = • *	> - ≷	b Wrap Text	enter -	General	✓	Conditional	Format as	Normal Good	B	ad leutral		Insert Del	ete Format
×	Clipboard	iat Painter	-	Font	15		Alignmer	nt	15	Numb	er 🕠	Formatting *	Table *	Styles	5			Ce	lls
D1				Jx =(A1+B	1)/C1		c										-	2	-
1	A 6	В	ر ۱	2 5	E	F	G	н		J	K	L	M	N	0	P	Q	к	5
2				l	***														
4							-												
6	1		/	9 3															

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

Fil	e	Home	Ins		Draw		Page Layo				Data	Review		Help	AC	CROBAT	Ŷ	Tell me w	hat you wa											
Pas	te	Cut Copy Forma	- It Painte	er	Calibri B I	Ū.	× 11 · ⊞ ·	× 	а́а́	= .		≫ . € •	한 Wra ➡ Mer	p Text ge & Cente		Genera	I % 9		Conditio Formattir	nal Forma Ig * Table	as	Normal Good		Bad Neutra	al		Ins	ert Dele	te Forma	it
	Clip	board		Γ ₂			Font		12	al 👘		Align	ment		ſS	i n	lumber	۲ ₂				Style	es.					Cell	5	
A5		÷		×	~	f _X	1																							
	А		В		С		D		E	F		G	н	1		J		к	L	м		N	0		Ρ	Q		R	S	
1 2 3 4		6		4		2		5																						
5 6		1		7		9	3	3	-		_	-																		

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

File	e	Home	Inser	t Drav	v Page	Layout	Formu	las Data	Review	View	Help	ACROBAT	Ŷ	Tell me wl	hat you want	to do						
-	X	Cut	_	Calibri	\sim	11 🗸	A A	= =	» · %	ab Wrap	Text	Gener	ral	\sim	₽ ≠		Normal	B	lad		E	< 🖬
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A5		÷	: >	< 🗸	fx :	L																
	A		В	С	[)	E	F	G	н	1.1	j		К	L	м	N	0	Р	Q	R	s
1		6	4	1	2	5																
2																						
3																						
4		_			_																	
5		1		81 - C	9	3																
6																						

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

File		Home	Ins	ert	Draw	F	Page Lay	out	Formu	ılas	Data	Review	View	Help	AC	ROBAT	Q	Tell me wl	hat you wan	to do							
Ê	8	Cut			Calibri		∨ 11	\sim	Ă	=	-	≫ •	ab c≠ Wrap	Text		General		\sim	I ≠		Normal		Bad		ŧ		
Paste	•	Forma	t Painte	r	B I	<u>U</u> .	· = •	<u></u>	<u>A</u> -		= =	€ →	🖶 Merg	e & Center	÷	S • %	5 9	€.0 .00 .00 →.0	Condition Formatting	al Formatas g * Table *	Good		Neutral	V	Inse	rt Delete	Format
	Clipb	oard		۲ <u>۶</u>			Font		12	2		Align	ment		٦,	Nu	mber	15			Styl	es				Cells	
015		٣		×	~	f_X																					
	A		В		с		D		E	F		G	н	1		J		к	L	м	N	0	Р	Q		R	S
1		6		4		2		5																			
2																											
3																											
5		1		7		9		3																			
6												-															

Adding Worksheets

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



23									
24									
25									
26									
27									
28									
29									
20									
		She	et1	Sheet2	2 Sheet3	Sheet4	Shee	et5 (+	
Read	dy								

Worksheets can also be dragged into any order.

23										
24										
25										
26										
27										
28										
29										
20										
		She	et1 S	heet2	Sheet	5 Shee	t3 Sh	neet4	(+)	
Read	dy					-				

Freezing Panes

В

ID2

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1

Α

1 ID1

4 5

6

С

ID3

4

7

D

5

3

ID4

2

9

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F

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.

File	Home Ins	ert Draw	Page Layout	Formulas	Data	Review	v View	Help	ACRO	OBAT	${ig Q}$ Tell me what you want to do
Normal Pag Pr	e Break Page	e Custom ut Views	✓ Ruler✓ Gridlines✓	Formula Bar Headings	Zoom	100% Z	Zoom to Selection	New Window	Arrange All	Freeze Panes *	Split D View Side by Side Hide D Synchronous Scrolling Unhide D Reset Window Position
W	orkbook Views		Show			Zoom					Unfreeze Panes
P19	•	× ✓	fx								through the entire worksheet.
A	В	С	D	E	F	G	н				Freeze Top Row N
1 ID1	ID2	ID3	ID4								Keep the top row visible while scrolling through the rest of the worksheet.
2											Freeze First Column
4	6	4	2 5								Keep the first column visible while scrolling
5	1	7	9 3								unough the rest of the worksheet.
6											
File	Home Ins	ert Draw	Page Layout	Formulas	Data	Reviev	w View	Help	ACR	OBAT	ig Q Tell me what you want to do
			✓ Ruler	Formula Bar	Q		0				Split CD View Side by Side
Normal Pag	e Break Page	a Custom			Zoom	100%	Zoom to	New	Arrange	Freeze	Hide Synchronous Scrolling
Pr	eview Layo	ut Views	🗹 Gridlines 🗹	Headings	20011	10070 2	Selection	Window	All	Panes *	Unhide Reset Window Position Windows -
W	orkbook Views		Show			Zoom					Window
P19	-	× ✓	fx								

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.

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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.

File	Home	Insert	Draw	Page Layou	t Formulas	Data	Review	View Help	o ACROBAT Q Tell me what you want to do
Aa	Colors	Marg	ins Orienta	ation Size	Print Breaks E	Jackground	Print Titles	← Width: Aut ↓ Height: Aut ↓ Scale: 1	Page Setup ? X Page Margins Header/Footer Sheet Sroup Rotate
	Themes			Page	e Setup		a 15	Scale to F	Print area:
E5	-	: ×	√ f	r					Print titles
	A	В	C C	D	E	F	G	н	Bows to repeat at left:
1	6	4	2	5					Dist.
3									
4									<u>G</u> ridines Comments: (None)
5	6	4	2						Cell errors as: displayed
6									Draft guality
7									Row and column headings
8									Page order
9									Down, then over
10									Over, then down
12									
13									
14									
15									Print Print Preview Options
16									
17									OK Carcel
18									OK Cancer
19									

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

	Book1 - Excel
\bigcirc	Print
☆ Home	Copier: 1
🗋 New	
🗁 Open	Print 6 4 2 5
	Printer 0
Info	Samsung CLP-410 Series (US
Save	Offline Printer Properties
Save As	Settings
Save as Adobe PDF	Print Active Sheets Only print the active sheets
History	Print Active Sheets Only print the active sheets
Print	Print Entire Workbook Print the entire workbook
Share	Print Selection Only print the current selection
Export	Ignore Print Area