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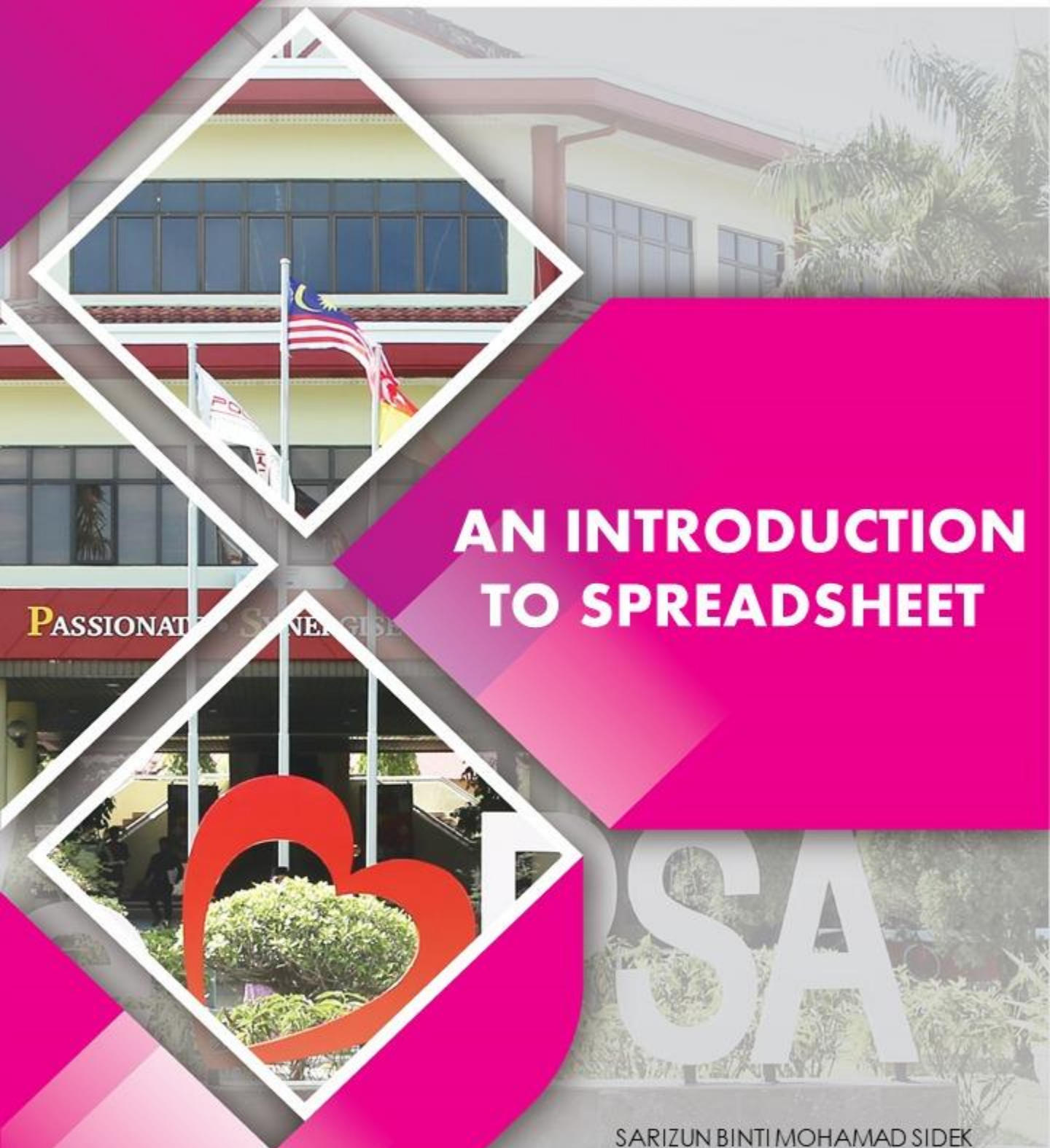
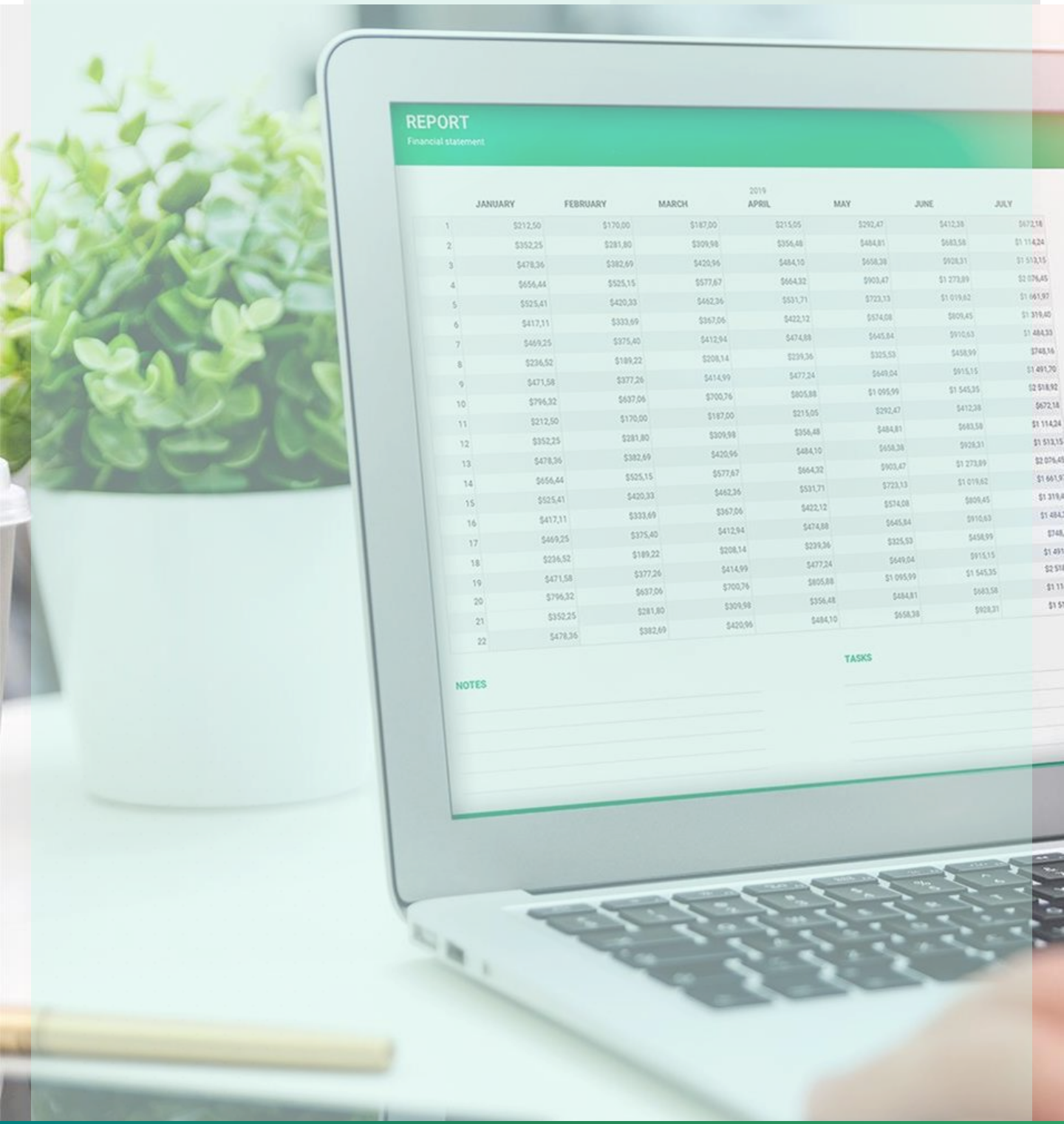


AN INTRODUCTION TO SPREADSHEET

SARIZUN BINTI MOHAMAD SIDEK
SITI MARIAM BINTI RAJAB
NUR LIYANA BINTI KHALID KHAN

MATHEMATICS, SCIENCE & COMPUTER DEPARTMENT



AN INTRODUCTION TO SPREADSHEET

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AN INTRODUCTION TO
SPREADSHEET

Writers :
Sarizun binti Mohamad Sidek
Siti Mariam binti Rajab
Nur Liyana binti Khalid Khan

eISBN No: 978-967-2044-57-4

First Published in 2021 by:

UNIT PENERBITAN

Politeknik Sultan Salahuddin Abdul Aziz Shah
Persiaran Usahawan,
Seksyen U1,
40150 Shah Alam
Selangor

Telephone No. : 03 5163 4000
Fax No. : 03 5569 1903

PREFACE

"Power comes not from knowledge kept, but from knowledge shared"

-Bill Gates

The aim of this book is to introduce students and readers to the theoretical and practical knowledge surrounding spreadsheets. A spreadsheet is a computer application used to organize, analyze, and store data in tabular form.

The book assumes basic knowledge of computer application learnt by students of polytechnics in first to third semester for various programs. The content of this eBook is based on the syllabus prepared by the Department of Polytechnic and Community College Education, Ministry of higher Education, Malaysia.

By using attractive illustrations and an orderly flow, it will hopefully help students and readers learn in an interesting way and make the learning process enjoyable. It also includes explanations in the text and links to videos for various subtopics.

We would like to thank Pn. Nariman Binti Hj. Daud, Head, Department of Mathematics, Science and Computer Science for their valuable suggestions and comments which helped in finalizing this book.

Our special thanks to our colleagues for their continuous support and suggestions during the development of this book.

OUR TEAM

Sarizun Binti Mohamad Sidek is a senior lecturer at Mathematics Science and Computer Department of Politeknik Sultan Salahuddin Abdul Aziz Shah, with Master in Education and Degree in Computer Science. She has over 21 years experience in teaching Engineering Mathematics and Computer Application courses for diploma and degree level in polytechnic.

Siti Mariam Binti Rajab is a lecturer at Mathematics Science and Computer Department of Politeknik Sultan Salahuddin Abdul Aziz Shah, with Degree in Electronics Engineering. She has over 11 years experience in teaching Engineering Mathematics and Computer Application courses for diploma and degree level in polytechnic.

Nur Liyana Binti Khalid Khan is a lecturer at Mathematics Science and Computer Department of Politeknik Sultan Salahuddin Abdul Aziz Shah, with Master in Technical and Vocational Education and Degree in Computer Science. She has over 12 years experience in teaching Engineering Mathematics and Computer Application courses for diploma level in polytechnic.

ACKNOWLEDGE

Our special thanks to our department head for giving us the opportunity and trust to create the eBook An Introduction To Spreadsheet. We would also like to extend our special thanks to the CRI units and eLearning team for their support in the creation of the eBook. It was also a great pleasure for our subject method expert Puan Nariman Binti Hj. Daud for reviewing the content of the subject.

Department of Mathematic, Science and Computer
Politeknik Sultan Salahuddin Abdul Aziz Shah
September 2021

TABLE OF CONTENT

Excel spreadsheet might as well be one of the most dangerous recent inventions

Rolf Dobeli

SPREADSHEET

1. Definition of Spreadsheet

A spreadsheet is a computer application for organizing, analyzing, and storing data in tabular form. Spreadsheets were developed as a computerized analog to paper accounting worksheets.

2. Introduction to Excel

In Excel, a computerized spreadsheet is called a worksheet. The file in which the worksheets are stored is called a workbook.

3. The Backstage

The Backstage view gives you several options for saving, opening a file, printing, and sharing your document.

New

contains options to create a new Excel file

Open

allows you to open a file from your local hard drive or from the cloud

Info

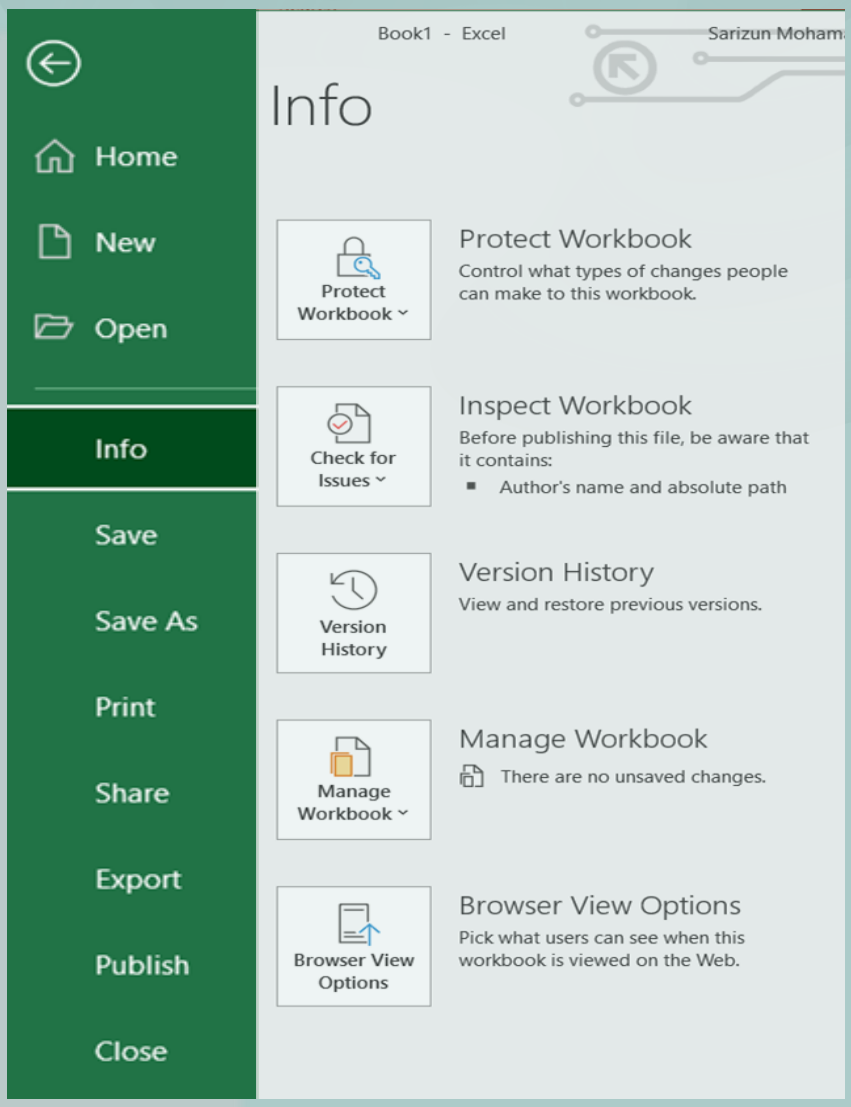
contains various information about the Excel file

Save & Save As

Use the "Save" & "Save As" menu to save the file to the cloud or to your hard drive.

Print

Manage file for printing



Share

Allows you to share the file via Microsoft OneDrive or email.

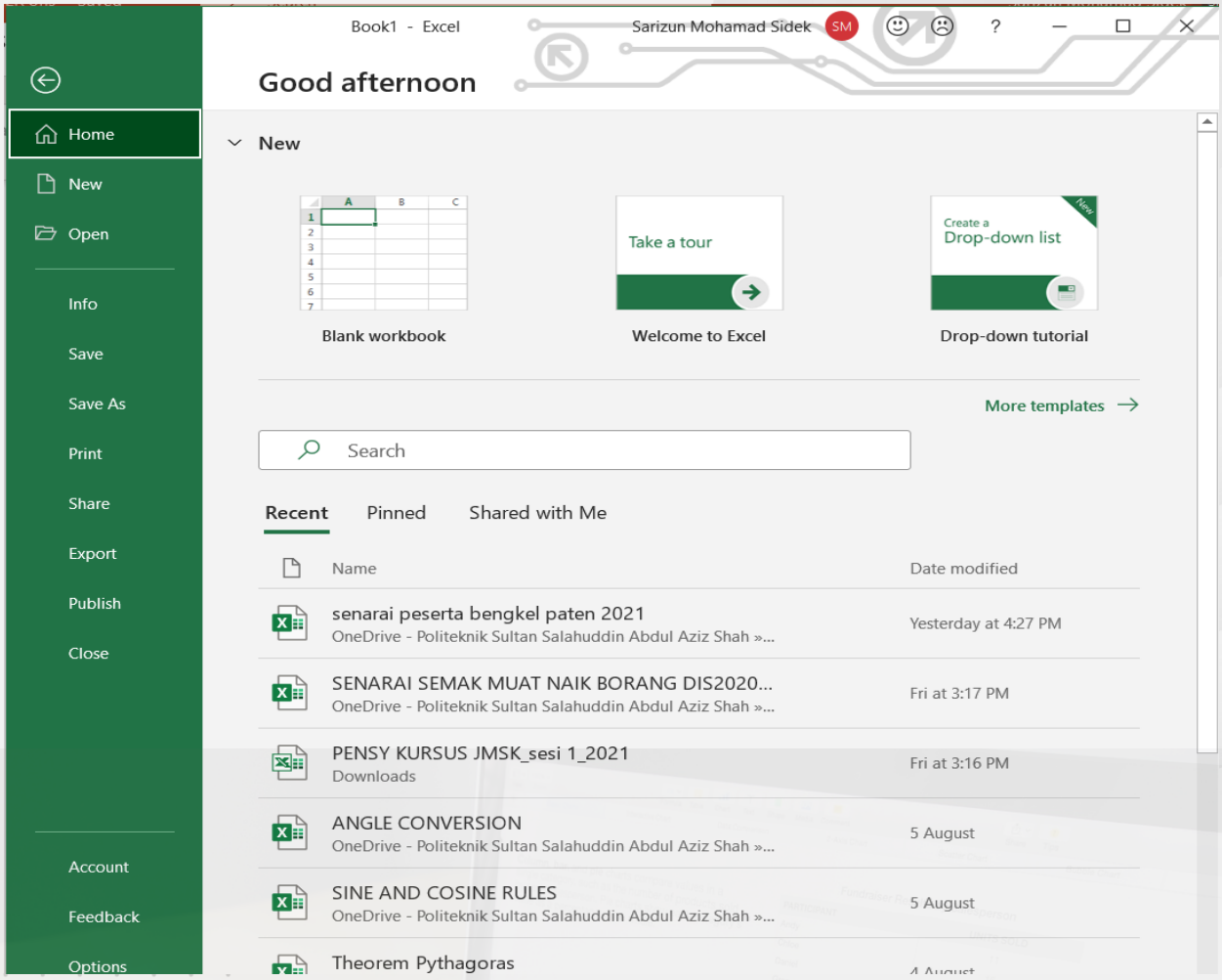
Export

allows you to export a file in PDF or XPS format

Publish

allows you to publish the file to Microsoft Power BI

4. Create New Spreadsheet

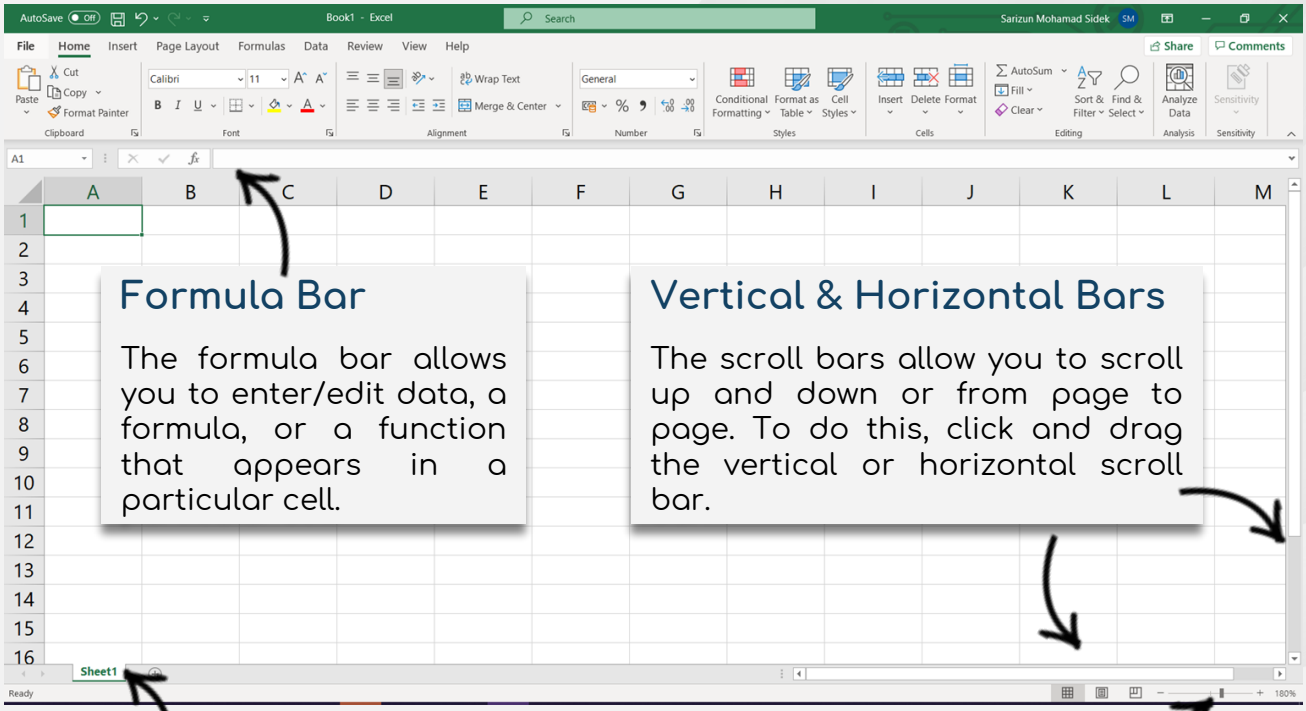


On the Excel home screen, locate and select the blank workbook to open the Excel interface.
Click the Start button on the Windows taskbar. - The Start menu opens

ii. Point to Programs - - The Programs menu opens

iii. Click on Microsoft Excel - Excel opens a new workbook

5. Excel Screen



Formula Bar

The formula bar allows you to enter/edit data, a formula, or a function that appears in a particular cell.

Vertical & Horizontal Bars

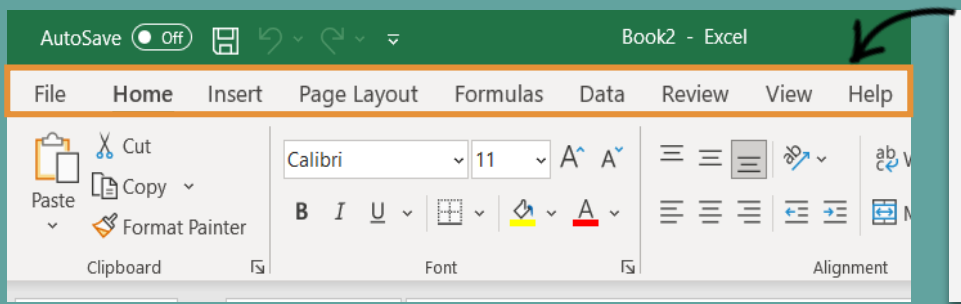
The scroll bars allow you to scroll up and down or from page to page. To do this, click and drag the vertical or horizontal scroll bar.

Worksheets

The Excel workbook contains one or more worksheets. Click the tabs to switch between them, or right-click for more options.

Zoom Control

Click and drag the slider to use the zoom control. The number on the right side of the slider indicates the zoom percentage.



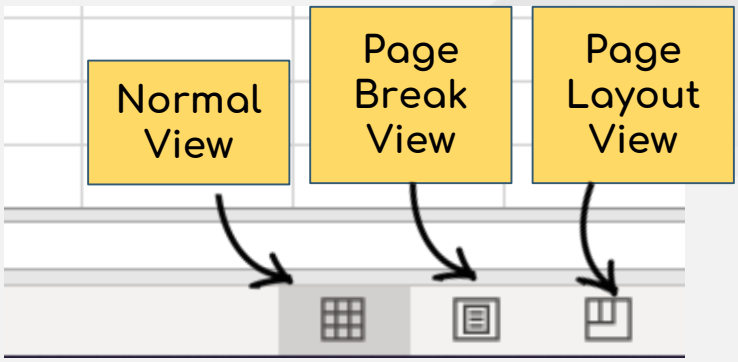
Ribbon

The Ribbon contains several tabs, each with several groups of commands.

Ribbon Tabs

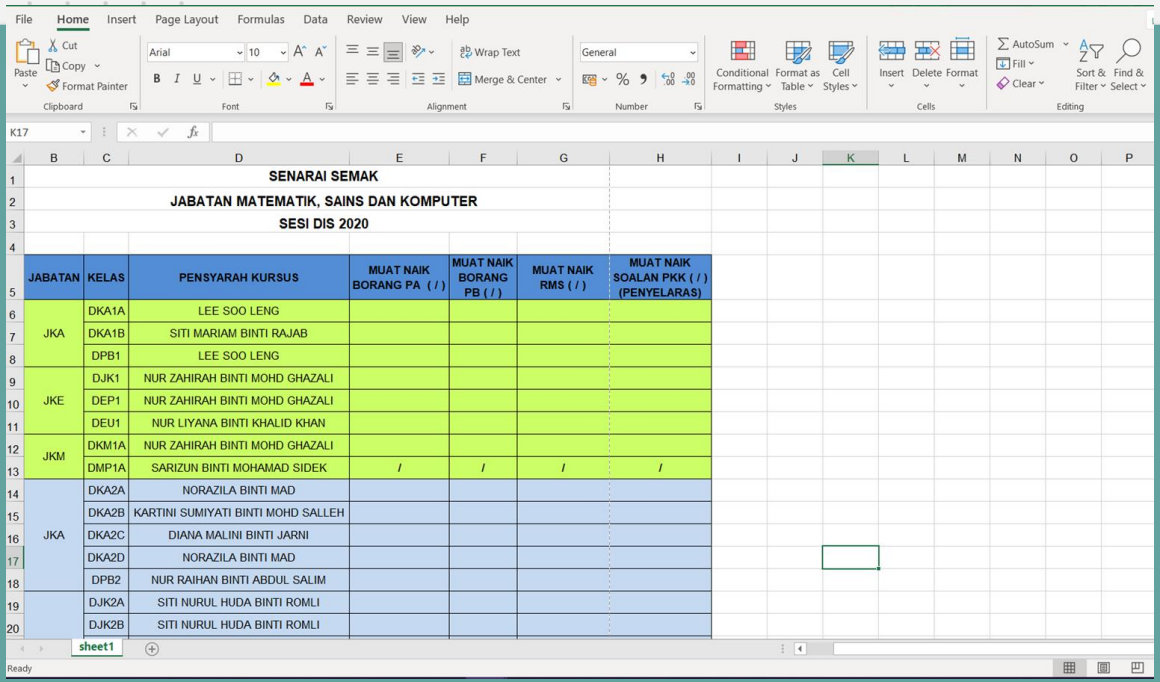
File Tab	allows you to switch to the Backstage view, which contains the most important file-related commands and Excel options.
Home tab	Contains the essential or most commonly used commands such as copy and paste, sort and filter, format, and so on.
Insert Tab	is used to insert various objects into a worksheet, such as pictures, charts, PivotTables, hyperlinks, special symbols, equations, headers and footers.
Page Layout Tab	Provides tools to customize and manage the appearance of the worksheet, both on screen and when printed. These tools control theme settings, gridlines, page margins, object alignment, and print area
Formula Tab	includes tools for inserting functions, defining names, and controlling calculation options.
Data Tab	contains the commands for managing worksheet data and for connecting to external data.
Review Tab	allows you to spell check, track changes, add comments and notes, and protect worksheets and workbooks.
View Tab	provides commands to switch between worksheet views, freeze panes, view and arrange multiple windows.
Help Tab	Appears only in Excel 2019 and Office 365. this tab provides quick access to the Help task pane and allows you to contact Microsoft Support, send feedback, suggest a feature, and get quick access to training videos.

6. Worksheets Views



The workbook can be displayed in three views, e.g
- Normal view
- Page Layout view
- Page Break view

Normal view is the default view for all worksheets in Excel. The following figure is an example of the normal view.



SENARAI SEMAK
JABATAN MATEMATIK, SAINS DAN KOMPUTER
SESI DIS 2020

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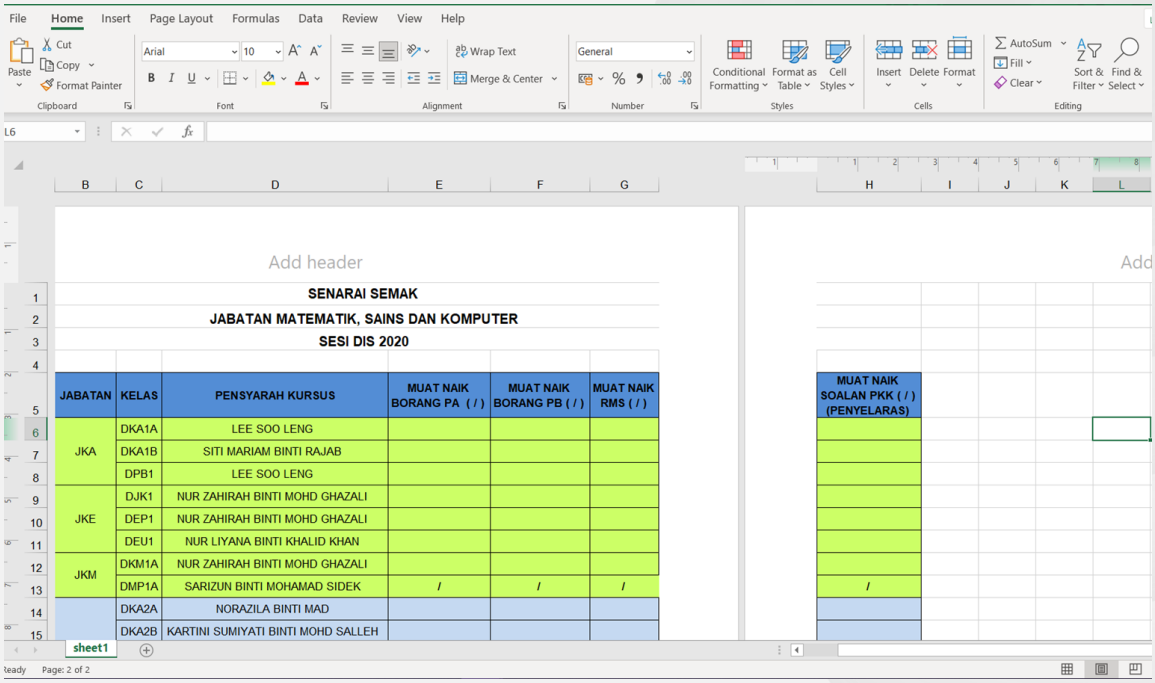
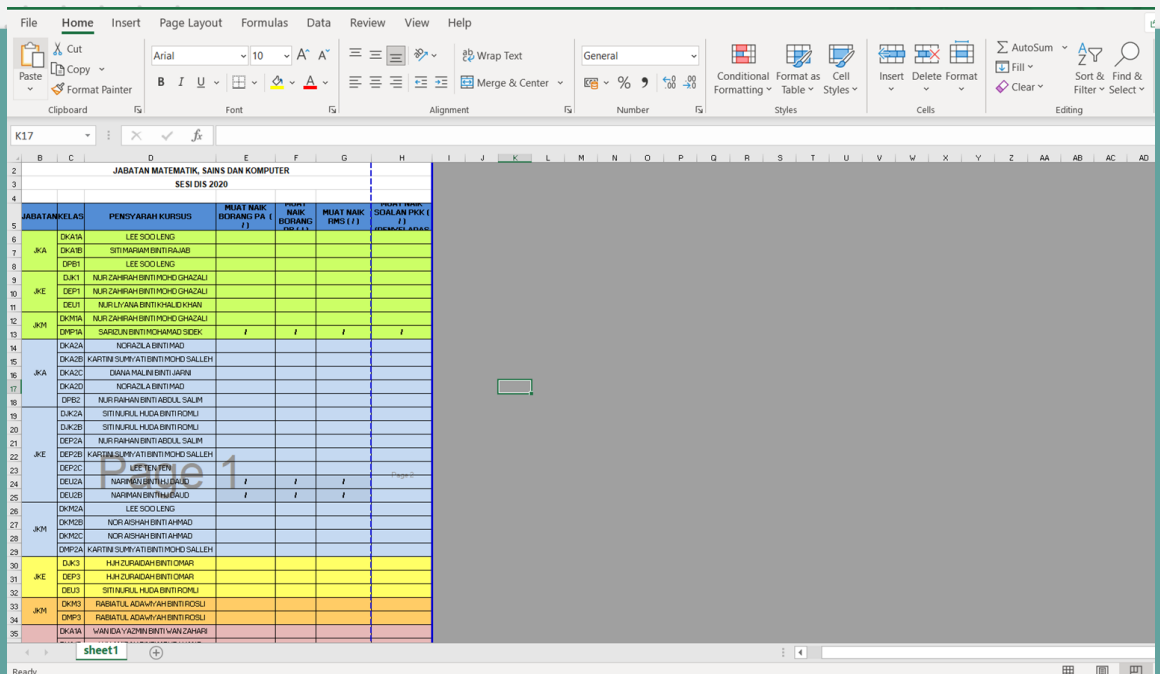
JKA	DKA1A	LEE SOO LENG				
	DKA1B	SITI MARIAM BINTI RAJAB				
	DPB1	LEE SOO LENG				
JKE	DJK1	NUR ZAHIRAH BINTI MOHD GHAZALI				
	DEP1	NUR ZAHIRAH BINTI MOHD GHAZALI				
	DEU1	NUR LIYANA BINTI KHALID KHAN				
JKM	DKM1A	NUR ZAHIRAH BINTI MOHD GHAZALI				
	DMP1A	SARIZUN BINTI MOHAMAD SIDEK	/	/	/	/
JKA	DKA2A	NORAZILA BINTI MAD				
	DKA2B	KARTINI SUMIYATI BINTI MOHD SALLEH				
	DKA2C	DIANA MALINI BINTI JARNI				
	DKA2D	NORAZILA BINTI MAD				
	DPB2	NUR RAIHAN BINTI ABDUL SALIM				
	DJK2A	SITI NURUL HUDA BINTI ROMLI				
	DJK2B	SITI NURUL HUDA BINTI ROMLI				

Page Layout view shows the appearance of the printed sheet, and you can add headers and footers in this view.

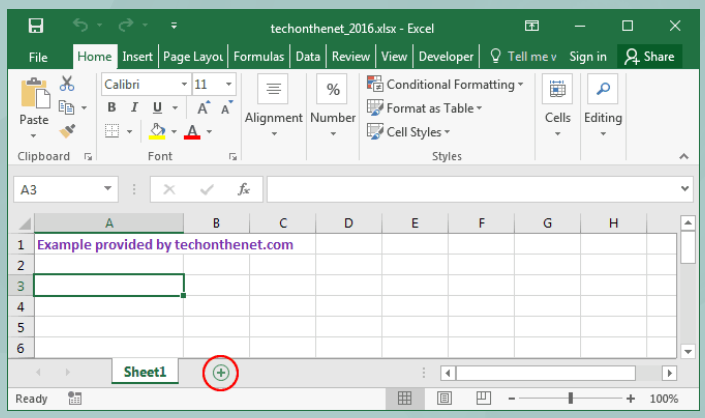


In the Page Break view, you can change the position of the page breaks. This is useful if you print a lot of data from Excel.



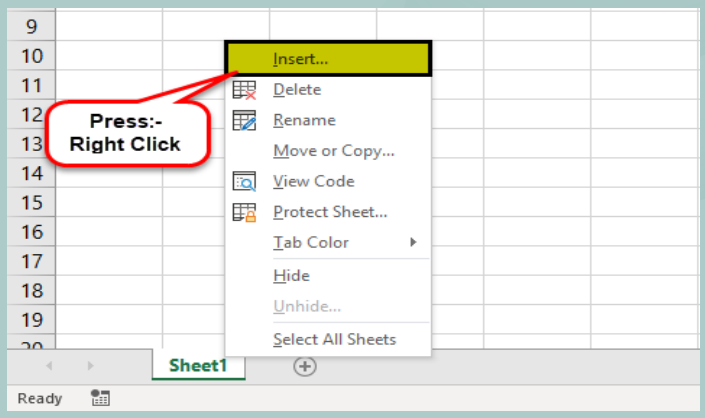
7. Working with Worksheets

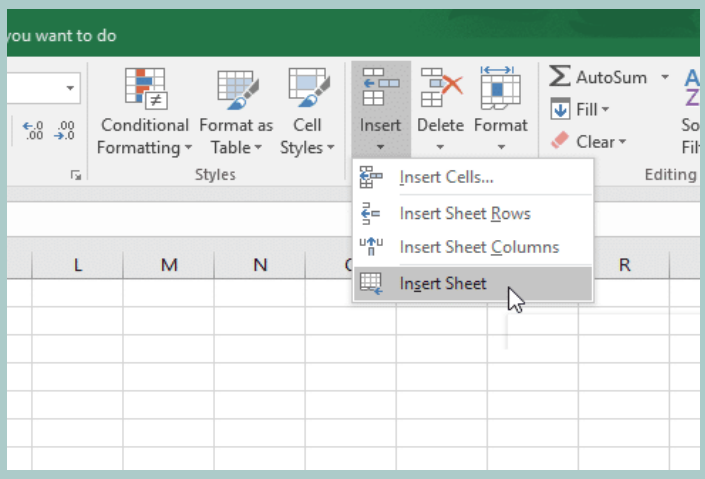
7.1 Insert New Worksheets



3 ways to insert New Sheet

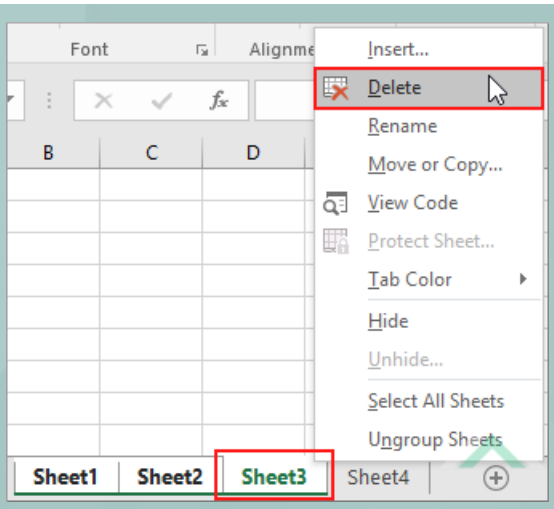
- Click '+' sign at the bottom of the sheet
- Right-click on the existing sheet, which by default is named 'Sheet1'.
- Click the 'Insert' icon on the right side of the ribbon to open a drop-down list of options.

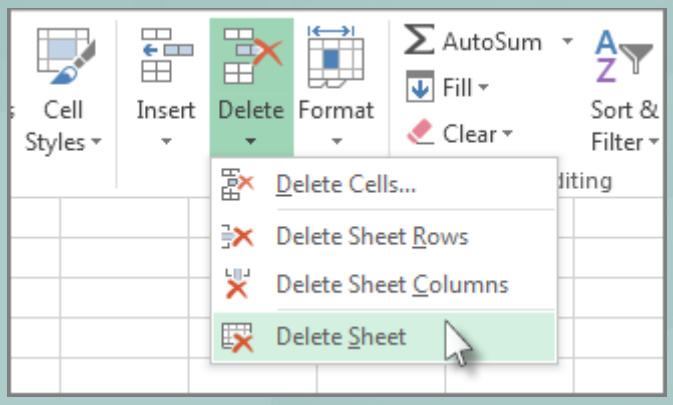




7.2 Delete a Worksheets

- Right-click the **Sheet tab** & select. **Delete.**
- Or, highlight the **sheet**, then select Home> **Delete>** **Delete Sheet.**

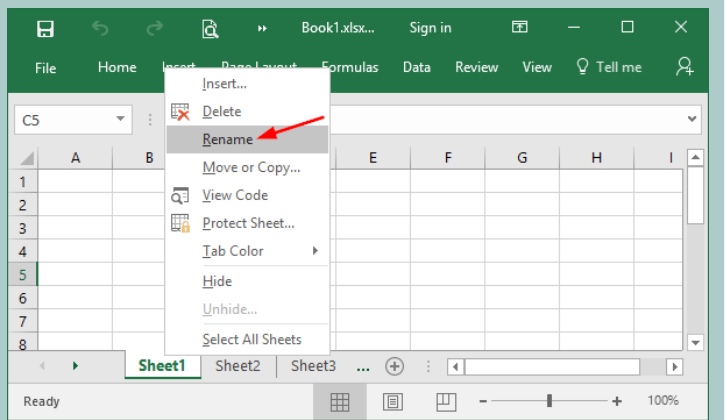




7.3 Rename a Worksheets

- Double-click the sheet tab, and type the new name.
- Right-click the sheet tab, click **Rename**, and enter the new name.
- Use the keyboard shortcut **Alt+H > O R**, and enter the new name.

By default, Excel names worksheets Sheet1, Sheet2, Sheet3 and so on, but you can easily rename them.

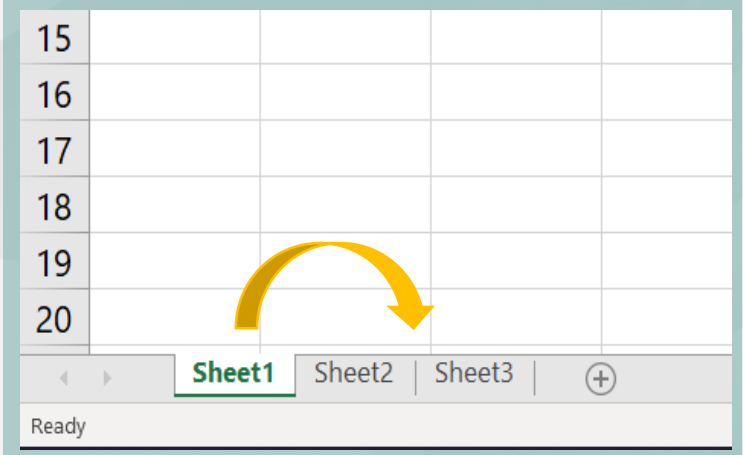


7.4 Moving and copying a Worksheets

Method 1

Copy Excel sheet by dragging

i. Drag-and-drop to move something from one place to another.
ii. Click the tab of the sheet you want to copy, hold down the Ctrl key, and drag the tab to the desired location.



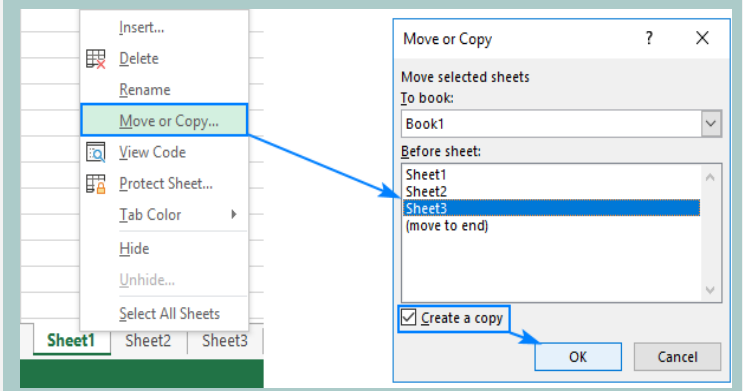
Method 2

Duplicate a sheet by right-clicking

i. Right-click the tab and choose Move or Copy from the shortcut menu. This opens the Move or Copy dialog box.

ii. Under In Front of Sheet, select where you want to place the copy.

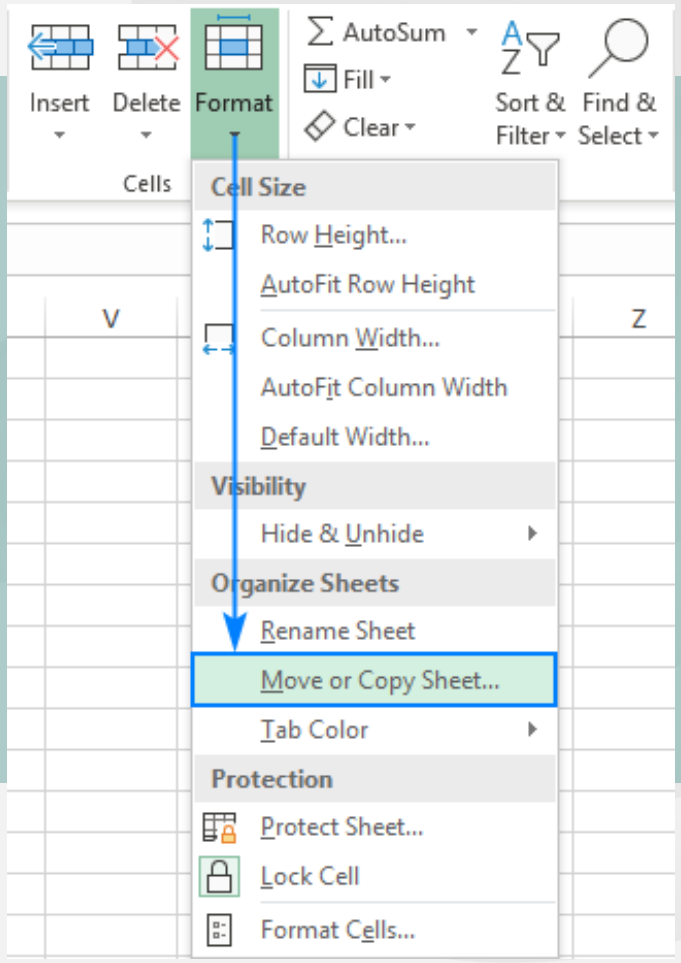
iii. Place a check mark in the Create Copy box, and then click OK.



Method 3

Copying a Tab in Excel via the Ribbon

To copy a sheet, go to the Start tab > Cells, click Format, and then click Move or Copy Sheet

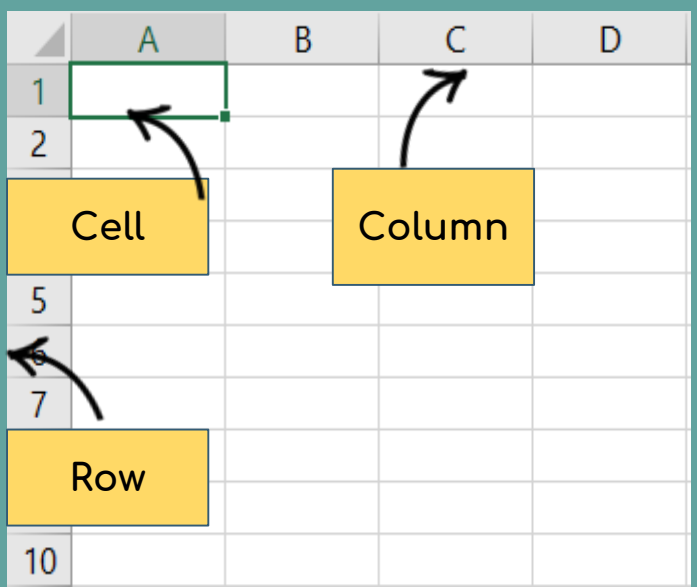


8. Understanding Cells

Each worksheet is consist of thousands of rectangles called cells.

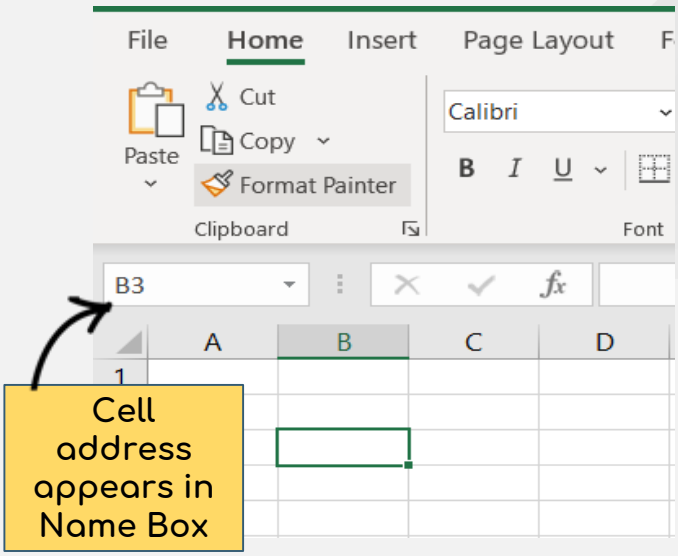
A cell is the intersection between a row and a column.

Columns are identified by letters (A, B, C), while rows are identified by numbers (1, 2, 3).



SPREADSHEET

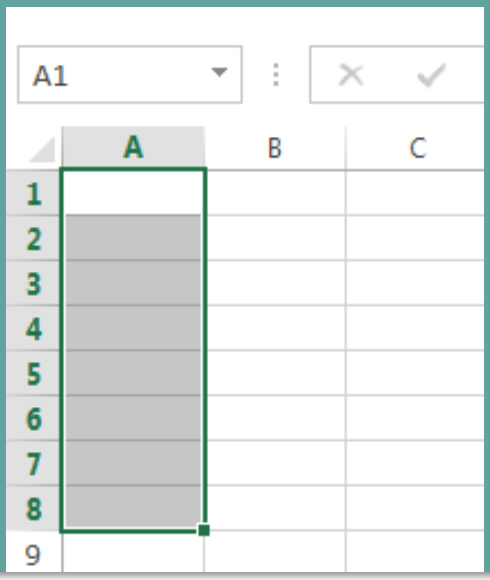
Each cell has its own name or address - based on its column and row. For example, column C and row 5, so the name or address of the cell is C5. The name or address of the cell is also displayed in the Name field



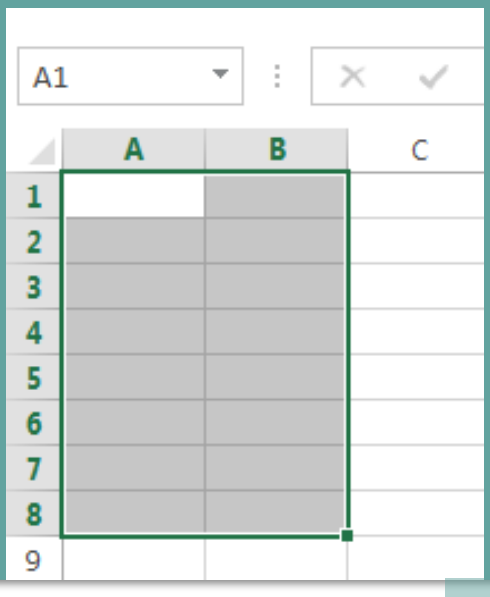
Note that the column and row headers of a cell are highlighted when the cell is selected.

Multiple cells can also be selected at the same time (this is called a cell range). For example, a cell range that includes cells A1, A2, A3, A4, and A5 is written as A1:A5.

Cell range **A1:A8**

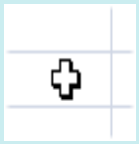
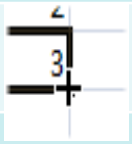
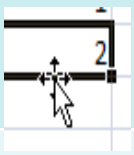
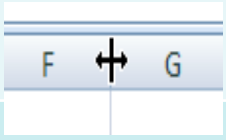
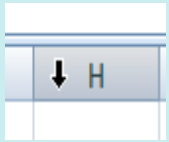


Cell range **A1:B8**



2.8.1 Mouse Pointer

There are several different types of mouse pointers

Mouse Pointer	Image	Description
General Select		Selecting a range of cells by clicking and dragging the mouse over the cells.
Fill/Copy		Copying cell contents or using the auto-fill feature.
Move Cell (or range of cells)		Moving contents of a cell or range of cells. Click and drag to move cell contents.
Column/Row Resize		Make columns or rows wider or narrower. Click and drag to resize manually or double-click to resize to the widest entry.
Column/Row Select		Select a column or row. Click once to select the column or row. Click and drag across the headings to select multiple rows or columns.

2.8.1 Understanding Cell

Cells can contain various types of **content**, including **text**, **formatting formulas**, and **functions**.

Text

Cells can contain **text**, such as letters, numbers, and dates.

Formulas and functions

Cells can contain **formulas and functions** that calculate cell values.

Formatting attributes

Cells can contain formatting attributes that change the appearance of letters, numbers, and dates. Percentages, for example, can be displayed as 0.19 or 19%.

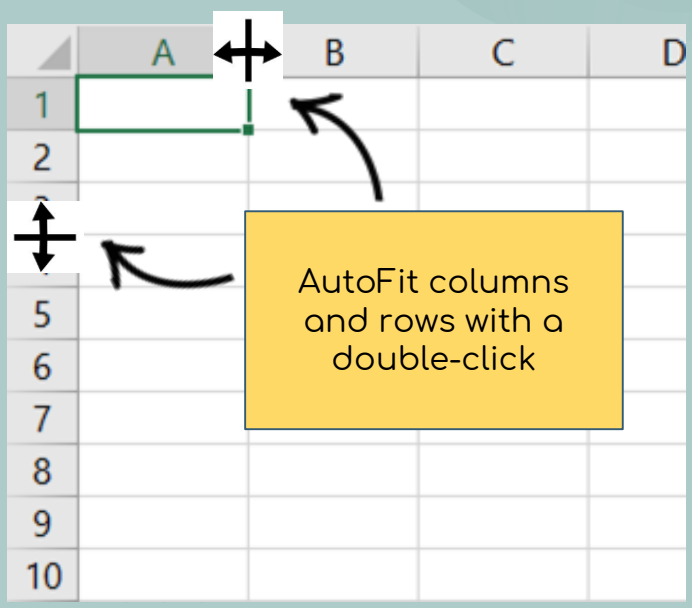
KEEP CALM I HAVE A SPREADSHEET FOR THAT

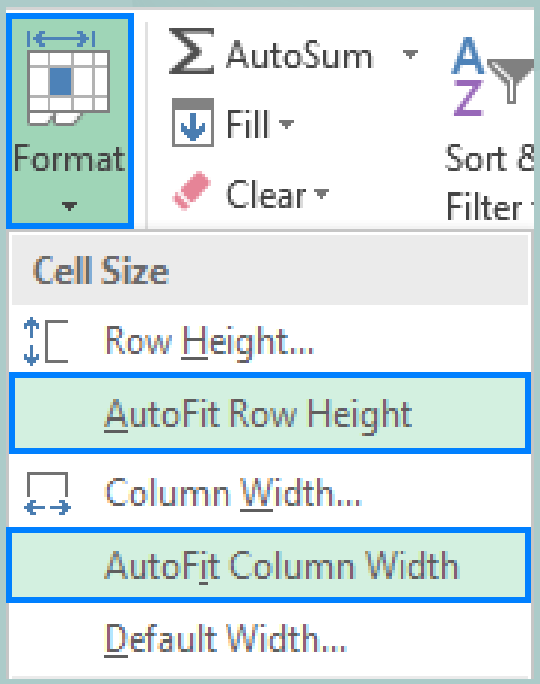
Anonymous

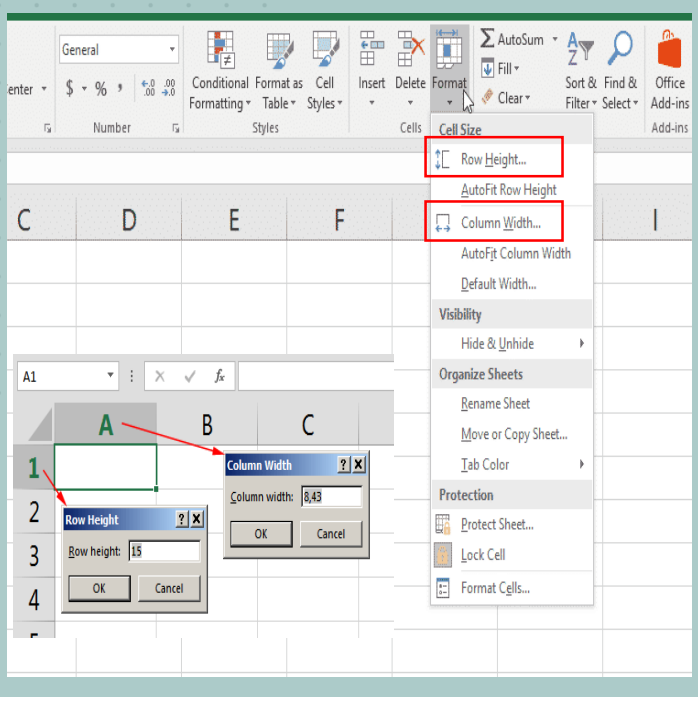
goodreads.com

2.8.2 Resizing and merge cell

Each row and column of a new workbook is set to the same height and width by default.

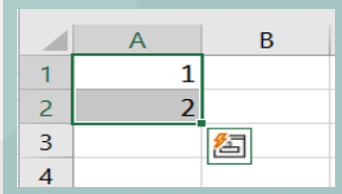




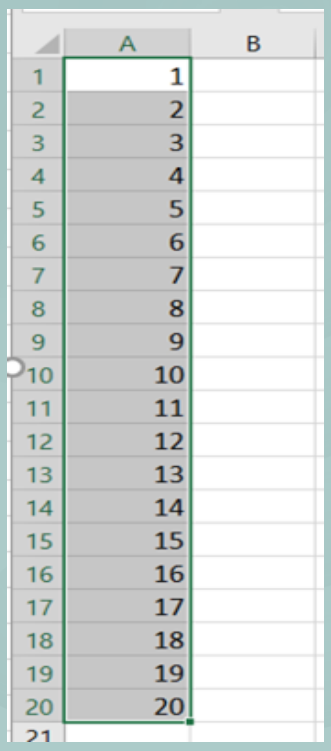


2.8.3 Autofill

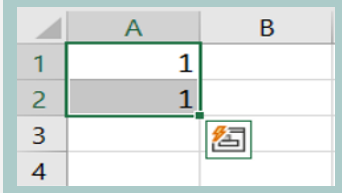
AutoFill is the property in Excel that automatically fills the next value into the next cell.



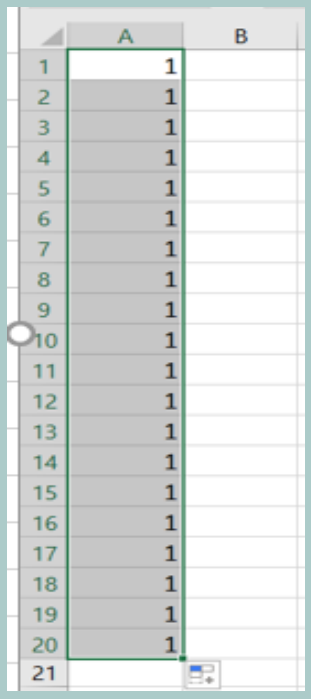
Fill Series



To AutoFill, you need to move the cursor horizontally or vertically until you release the key



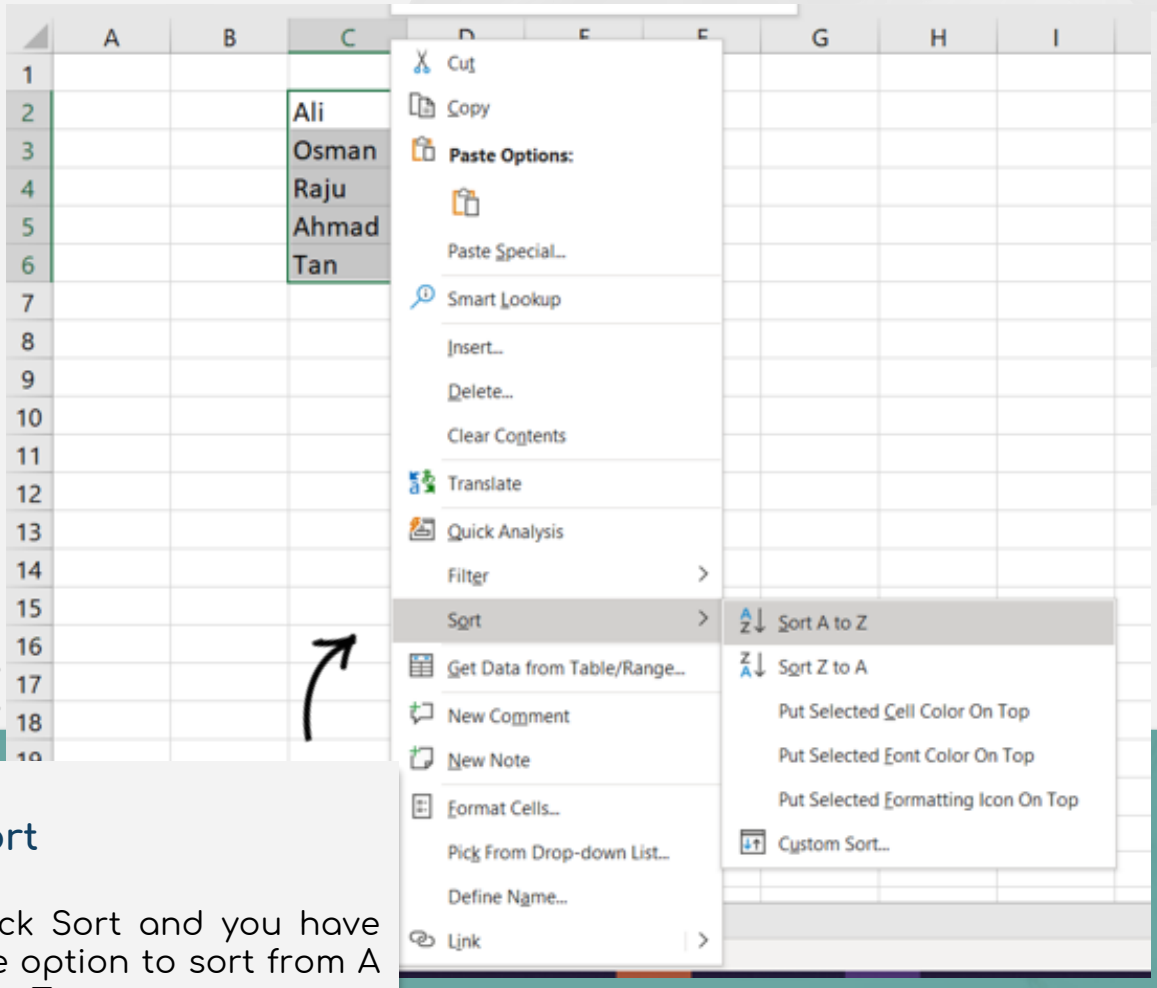
Copy Cells



There are some AutoFill properties that are already defined in Excel, such as month, day, number, etc. But we can also create our own AutoFill properties.

2.8.4 Sorting

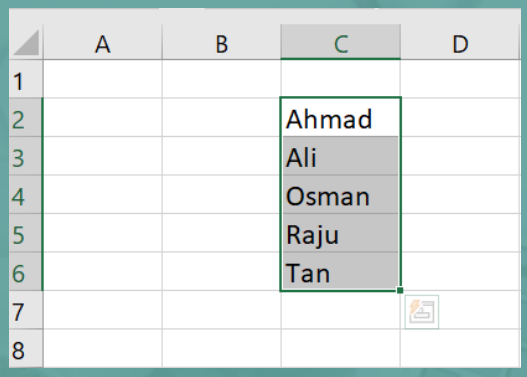
Sorting is a common task that lets you change or adjust the order of your spreadsheet data



Sort

Click Sort and you have the option to sort from A to Z or vice versa.

Here is an example of data sorted from A to Z.



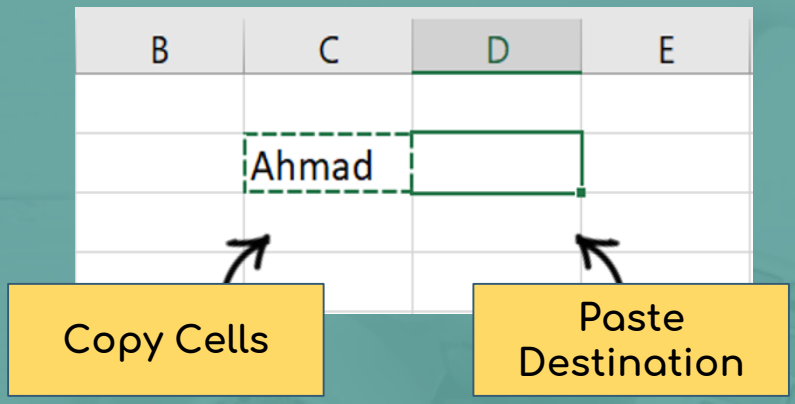
2.8.5 Copying and moving data

COPY AND PASTE

- Select the cell(s) you want to copy
  On the Home tab, click the Copy command, or press Ctrl+C on your keyboard.
- Select the cell(s) into which you want to paste the content.
- Click the Paste command on the Home tab, or press Ctrl+V on your keyboard.
- The content is pasted into the selected cells.

CUT AND PASTE

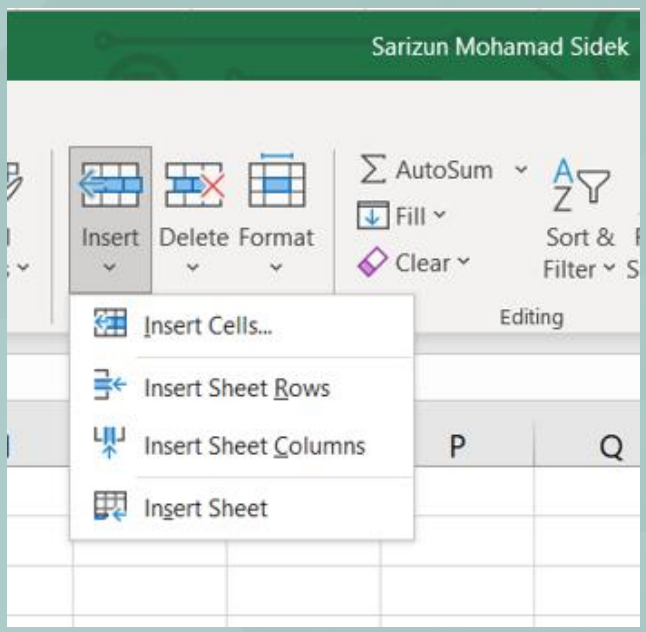
- Select the cell or range you want to **cut**.
- Click the **Cut** button on the Home tab. (Or Press Ctrl + X)
- Click the cell where you want to **paste** your data.
- Click the **Paste** button. (Or Press Ctrl + V)



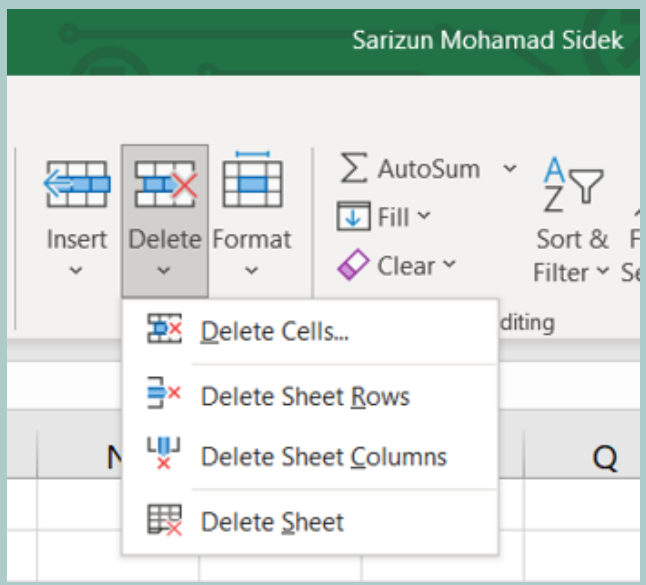
2.8.6 Insert or delete a row and column

- Select any **cell** within the **row or column,** then go to Home> **Insert**> **Insert** Sheet **Rows/Columns**

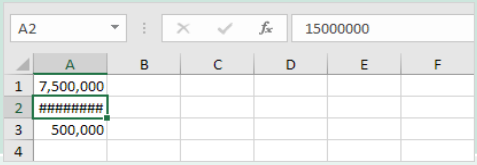
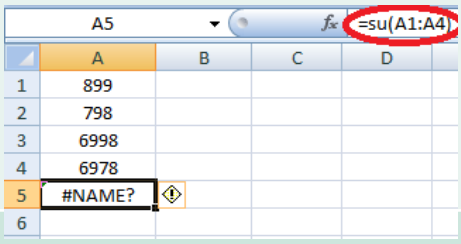
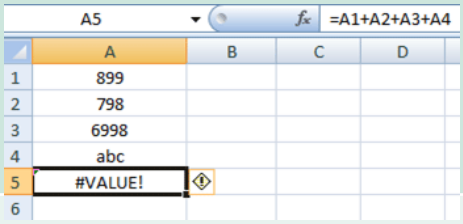
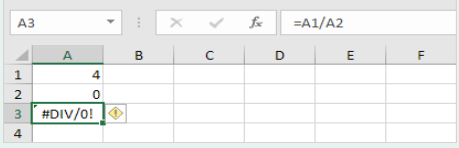
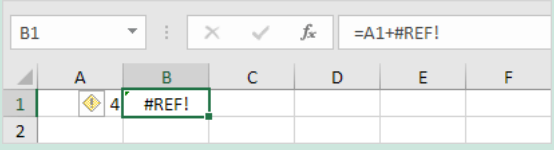
- or **Delete** Sheet **Rows/Columns.**



- Alternatively, right-click the **row** number or the column



2.8.7 Common Error in Excel

Error	Example
##### If your cell contains this error code, the column isn't wide enough to display the value.	
#NAME? The error #NAME? occurs when Excel does not recognize text in a formula.	
#VALUE! Excel displays the error #VALUE! when a formula has the wrong type of argument.	
#DIV/0! Excel displays the error #DIV/0! when a formula tries to divide a number by 0 or an empty cell.	
#REF! Excel displays the error # REF! when a formula references a cell that is not valid. Cell C1 refers to cell A1 and cell B1.	

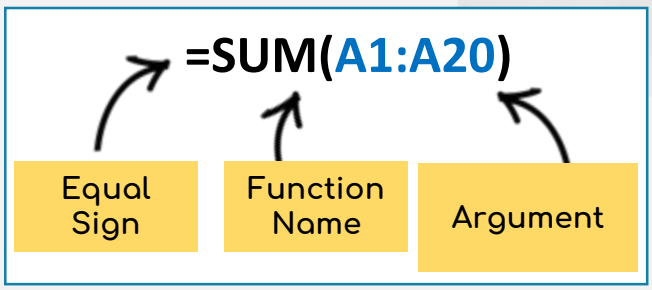
HAPPINESS IS

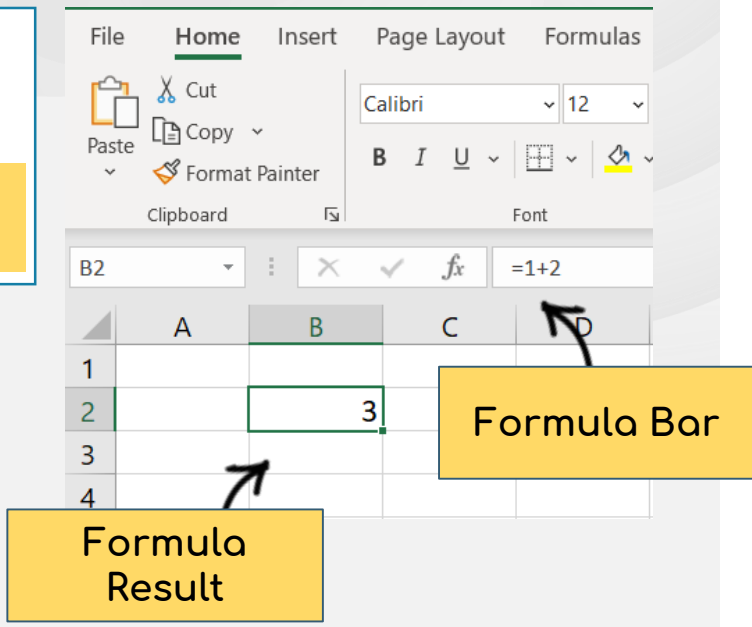
....correctly applying a spreadsheet formula

Rolf Dobeli

2.9 Formulas and Functions

formula is an expression used to calculate the value of a cell. Functions are predefined formulas and already available in Excel. All formulas must start with an equal sign (=)





2.9.1 Basic Function

MATHEMATICS OPERATIONS	SYMBOL
ADD	+
SUBTRACT	-
MULTIPLY	*
DIVIDE	/

Name	Function
Sum	Total
Average	Average of data
Max	Largest value
Min	Smallest value
Count	The number of entries
Name	Function

Example

TABLE A

	A	B	C	D
1				
2		Name	Quiz 1	Quiz 2
3		Ali	50	90
4		Tan	90	80
5		Raju	80	90
6		Lina	70	75
7		Mariam	55	75

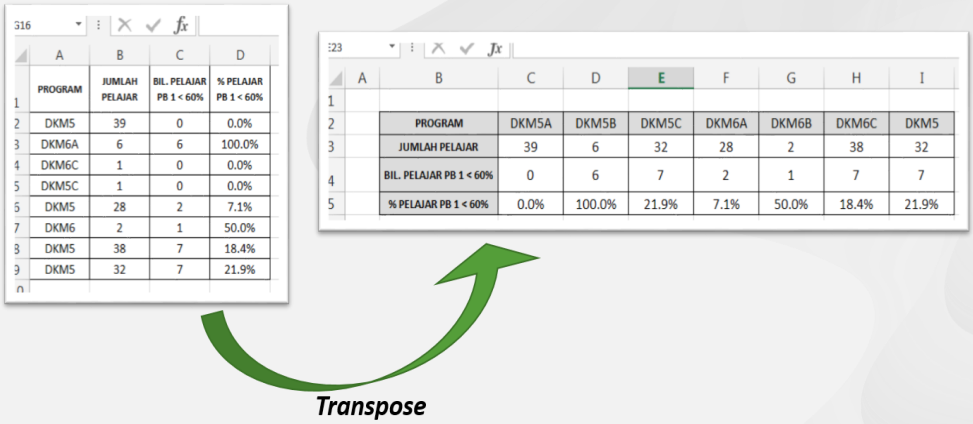
Refer to the Table A, calculation use function:

MATHEMATICS OPERATIONS	EXAMPLE	ANSWER
ADD	**=C3+C4**	140
SUBTRACT	**=C3-C5**	-30
MULTIPLY	**=C3*C6**	3500
DIVIDE	**=C4/C7**	1.64

FUNCTION	STATEMENT	ANSWER
TOTAL (SUM)	**=SUM(C3:C7)**	345
Highest Mark	**=MAX(C3:C7)**	90
Lowest Mark	**=MIN(C3:C7)**	50
Average Mark	**=AVERAGE(C3:C7)**	69
Number or student	**=COUNT(C3:C7)**	5

2.10 Transpose Table

Transpose - Change row and column of the data

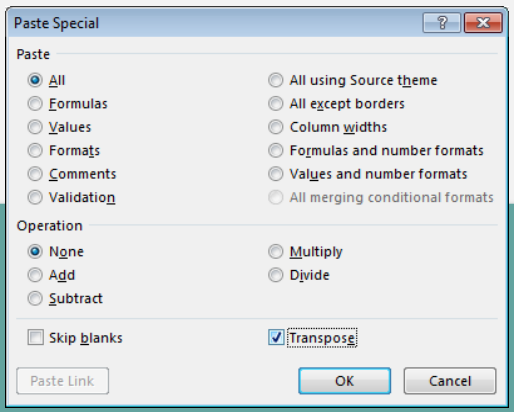


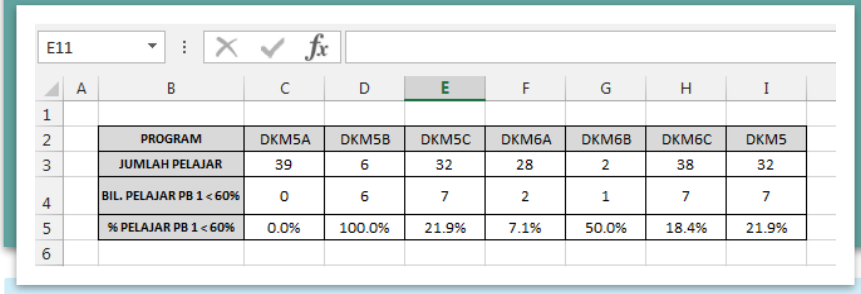
PROGRAM	JUMLAH PELAJAR	BIL. PELAJAR PB 1 < 60%	% PELAJAR PB 1 < 60%
DKM5	39	0	0.0%
DKM6A	6	6	100.0%
DKM6C	1	0	0.0%
DKM5C	1	0	0.0%
DKM5	28	2	7.1%
DKM6	2	1	50.0%
DKM5	38	7	18.4%
DKM5	32	7	21.9%

PROGRAM	DKM5A	DKM5B	DKM5C	DKM6A	DKM6B	DKM6C	DKM5
JUMLAH PELAJAR	39	6	32	28	2	38	32
BIL. PELAJAR PB 1 < 60%	0	6	7	2	1	7	7
% PELAJAR PB 1 < 60%	0.0%	100.0%	21.9%	7.1%	50.0%	18.4%	21.9%

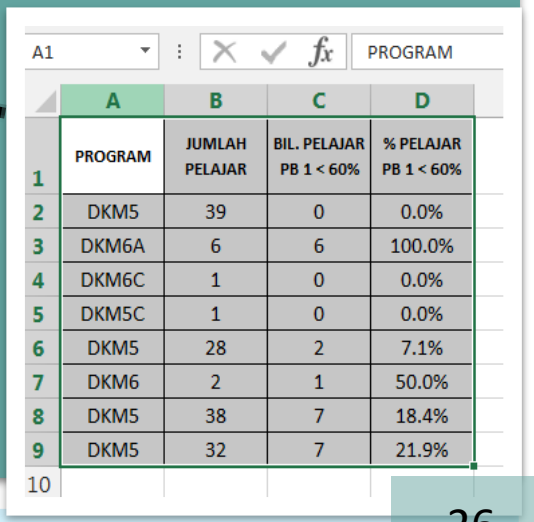
Step to transposing the table

1. First select the table
2. Click with the right mouse button and copy
3. Go to another cell or worksheet
4. Select Paste Special
5. Click on the Transpose check box and then on OK





PROGRAM	DKM5A	DKM5B	DKM5C	DKM6A	DKM6B	DKM6C	DKM5
JUMLAH PELAJAR	39	6	32	28	2	38	32
BIL. PELAJAR PB 1 < 60%	0	6	7	2	1	7	7
% PELAJAR PB 1 < 60%	0.0%	100.0%	21.9%	7.1%	50.0%	18.4%	21.9%

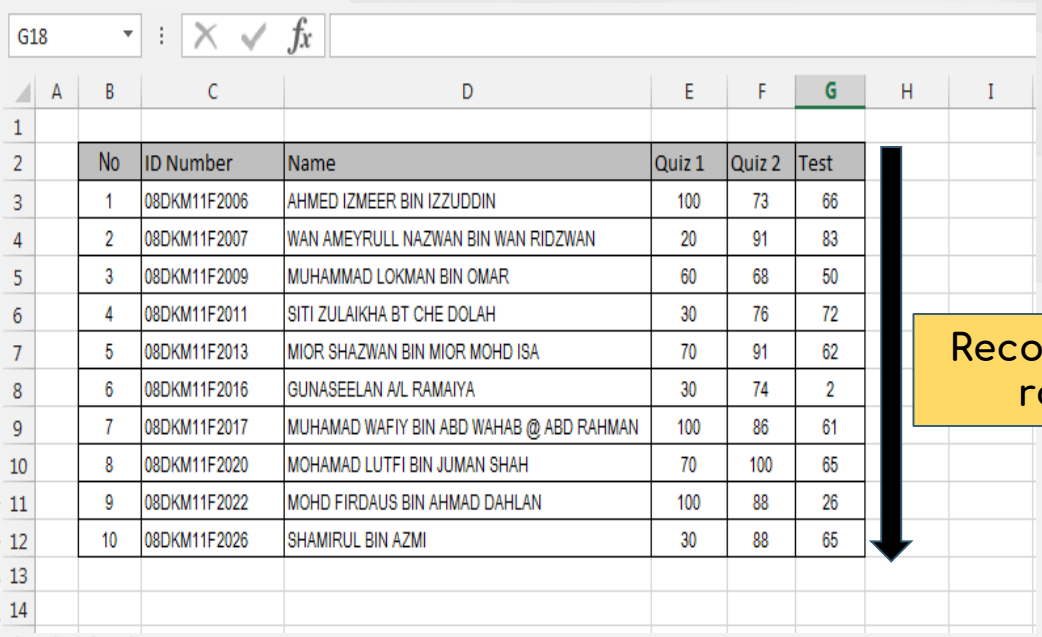


PROGRAM	JUMLAH PELAJAR	BIL. PELAJAR PB 1 < 60%	% PELAJAR PB 1 < 60%
DKM5	39	0	0.0%
DKM6A	6	6	100.0%
DKM6C	1	0	0.0%
DKM5C	1	0	0.0%
DKM5	28	2	7.1%
DKM6	2	1	50.0%
DKM5	38	7	18.4%
DKM5	32	7	21.9%

2.11 LOOKUP Function

The function LOOKUP is assigned to the category Excel Lookup and Reference Functions.

The function performs a coarse search in either a single-line or single-column range and returns the corresponding value from another single-line or single-column range.



G18

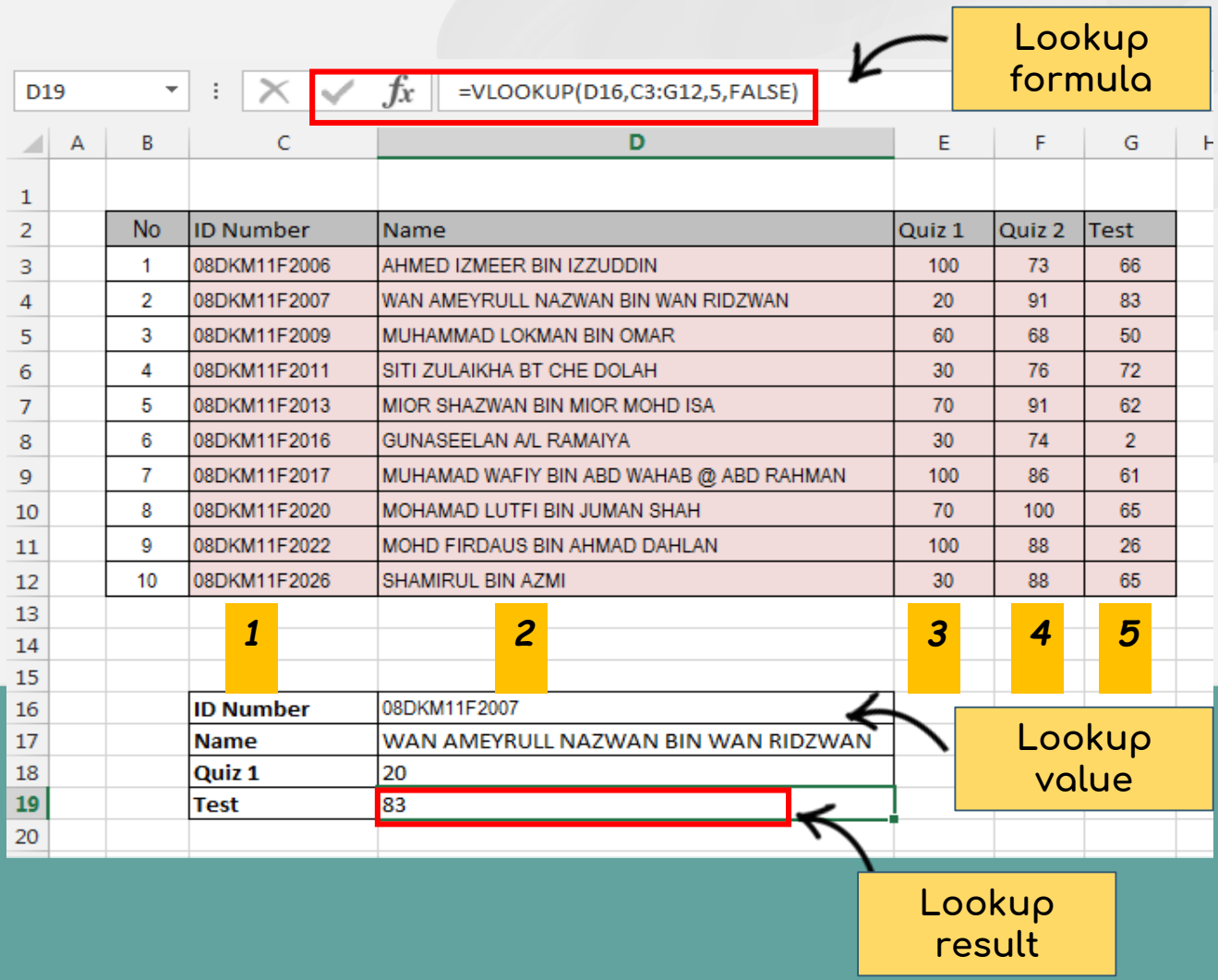
	A	B	C	D	E	F	G	H	I
1									
2		No	ID Number	Name	Quiz 1	Quiz 2	Test		
3		1	08DKM11F2006	AHMED IZMEER BIN IZZUDDIN	100	73	66		
4		2	08DKM11F2007	WAN AMEYRULL NAZWAN BIN WAN RIDZWAN	20	91	83		
5		3	08DKM11F2009	MUHAMMAD LOKMAN BIN OMAR	60	68	50		
6		4	08DKM11F2011	SITI ZULAIKHA BT CHE DOLAH	30	76	72		
7		5	08DKM11F2013	MIOR SHAZWAN BIN MIOR MOHD ISA	70	91	62		
8		6	08DKM11F2016	GUNASEELAN A/L RAMAIYA	30	74	2		
9		7	08DKM11F2017	MUHAMAD WAFIY BIN ABD WAHAB @ ABD RAHMAN	100	86	61		
10		8	08DKM11F2020	MOHAMAD LUTFI BIN JUMAN SHAH	70	100	65		
11		9	08DKM11F2022	MOHD FIRDAUS BIN AHMAD DAHLAN	100	88	26		
12		10	08DKM11F2026	SHAMIRUL BIN AZMI	30	88	65		
13									
14									

Records in row

2.11.1 VLOOKUP Function

- VLOOKUP is an Excel function for locating and retrieving large data in a vertically organized table.
- VLOOKUP supports approximate and exact matches, as well as wildcards (* ?) for partial matches.
- Data must be in one row
- VLOOKUP requires a lookup table with lookup values in the left-most column.

VLOOKUP has two modes for matching: exact and approximate, controlled by the 4th argument "range_lookup".
Set range_lookup to FALSE to force exact matching, and TRUE for approximate matching.



No	ID Number	Name	Quiz 1	Quiz 2	Test
1	08DKM11F2006	AHMED IZMEER BIN IZZUDDIN	100	73	66
2	08DKM11F2007	WAN AMEYRULL NAZWAN BIN WAN RIDZWAN	20	91	83
3	08DKM11F2009	MUHAMMAD LOKMAN BIN OMAR	60	68	50
4	08DKM11F2011	SITI ZULAIKHA BT CHE DOLAH	30	76	72
5	08DKM11F2013	MIOR SHAZWAN BIN MIOR MOHD ISA	70	91	62
6	08DKM11F2016	GUNASEELAN A/L RAMAIYA	30	74	2
7	08DKM11F2017	MUHAMAD WAFIY BIN ABD WAHAB @ ABD RAHMAN	100	86	61
8	08DKM11F2020	MOHAMAD LUTFI BIN JUMAN SHAH	70	100	65
9	08DKM11F2022	MOHD FIRDAUS BIN AHMAD DAHLAN	100	88	26
10	08DKM11F2026	SHAMIRUL BIN AZMI	30	88	65

ID Number	08DKM11F2007
Name	WAN AMEYRULL NAZWAN BIN WAN RIDZWAN
Quiz 1	20
Test	83

Formula for VLOOKUP

=VLOOKUP(value, table, column, FALSE) (for exact match)

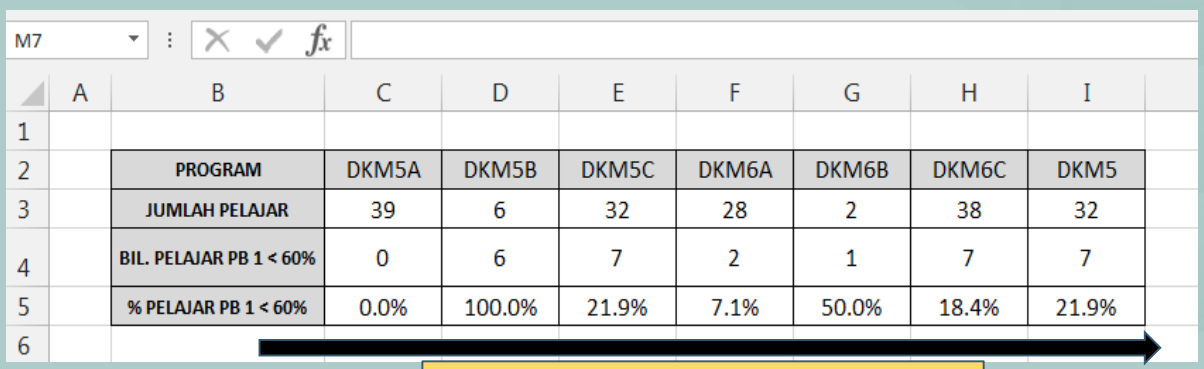
VLOOKUP VIDEO

2.11.2 HLOOKUP Function

HLOOKUP is an Excel function for looking up and retrieving data from a specific row in a table.

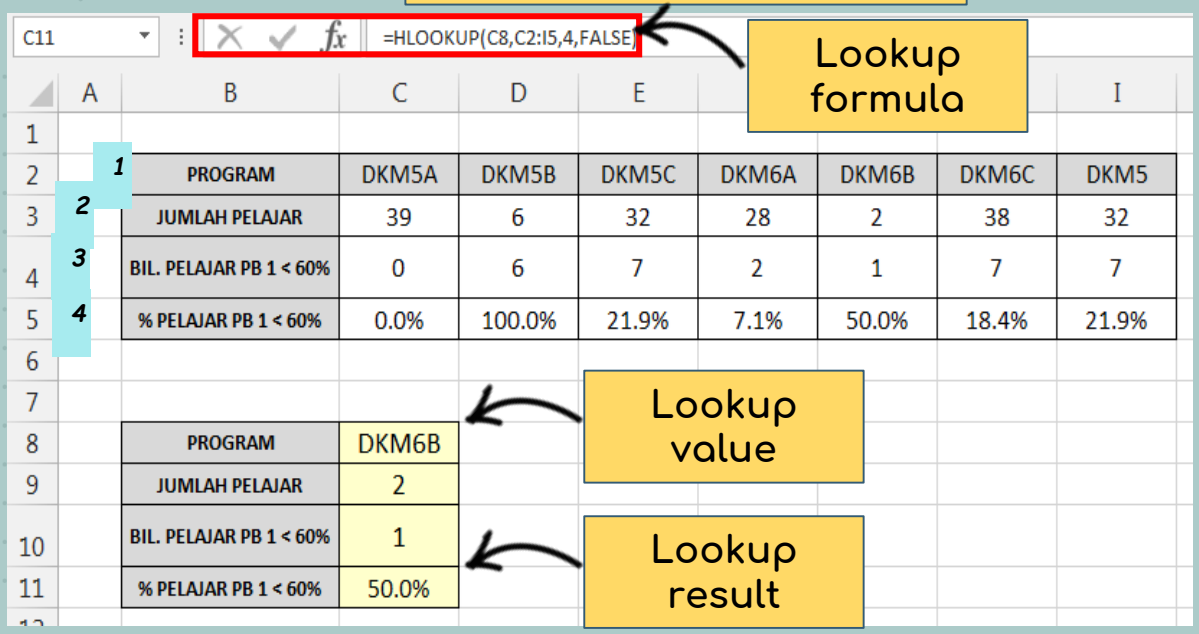
The "H" in HLOOKUP stands for "horizontal", meaning that the lookup values appear in the first row of the table and move horizontally to the right.

HLOOKUP supports approximate and exact matches, as well as wildcards (* ?) for finding partial matches.



PROGRAM	DKM5A	DKM5B	DKM5C	DKM6A	DKM6B	DKM6C	DKM5
JUMLAH PELAJAR	39	6	32	28	2	38	32
BIL. PELAJAR PB 1 < 60%	0	6	7	2	1	7	7
% PELAJAR PB 1 < 60%	0.0%	100.0%	21.9%	7.1%	50.0%	18.4%	21.9%

Records in column



PROGRAM	DKM5A	DKM5B	DKM5C	DKM6A	DKM6B	DKM6C	DKM5
JUMLAH PELAJAR	39	6	32	28	2	38	32
BIL. PELAJAR PB 1 < 60%	0	6	7	2	1	7	7
% PELAJAR PB 1 < 60%	0.0%	100.0%	21.9%	7.1%	50.0%	18.4%	21.9%

PROGRAM	DKM6B
JUMLAH PELAJAR	2
BIL. PELAJAR PB 1 < 60%	1
% PELAJAR PB 1 < 60%	50.0%

Formula for VLOOKUP

=HLOOKUP(value, table, row, FALSE) (for exact match)

VLOOKUP VIDEO

Yes. I appreciate the helpful and long spreadsheet with all the many places you can't go.

Shelly Laurenston, The Mane Event

quoteslyfe.com

2.12 Chart or Graph

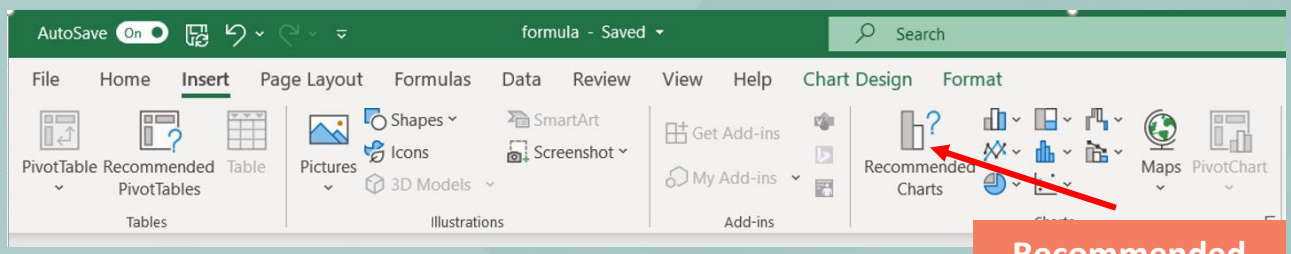
- A chart is a tool you can use in Excel to graphically represent your data.
- Charts allow you to see the meaning behind the numbers and make comparisons and trends much easier. Excel has several types of charts from which you can choose the one that best fits your data.

2.12.1 Creating a Chart or Graph

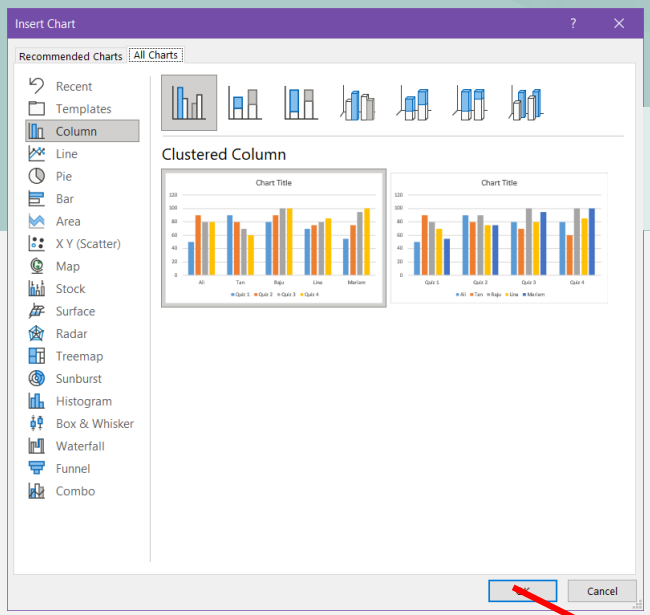
i. Select the cells you want to plot on a graph, including column titles and row labels. These cells will be the source data for the chart. In our example, we will select cells A1:F6.

	A	B	C	D	E	F
1		Markah Kuiz Kelas DMP1				
2						
3		Name	Quiz 1	Quiz 2	Quiz 3	Quiz 4
4		Ali	50	90	80	80
5		Tan	90	80	70	60
6		Raju	80	90	100	100
7		Lina	70	75	80	85
8		Mariam	55	75	95	100
9						

ii. On the Insert tab, click the chart command you want. We can Select recommended charts or another chart type.



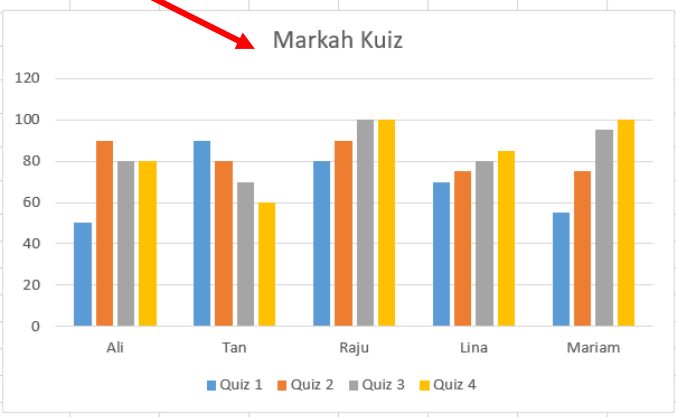
Recommended Charts



iii. Choose the desired chart type from the drop-down menu

Markah Kuiz Kelas DMP1

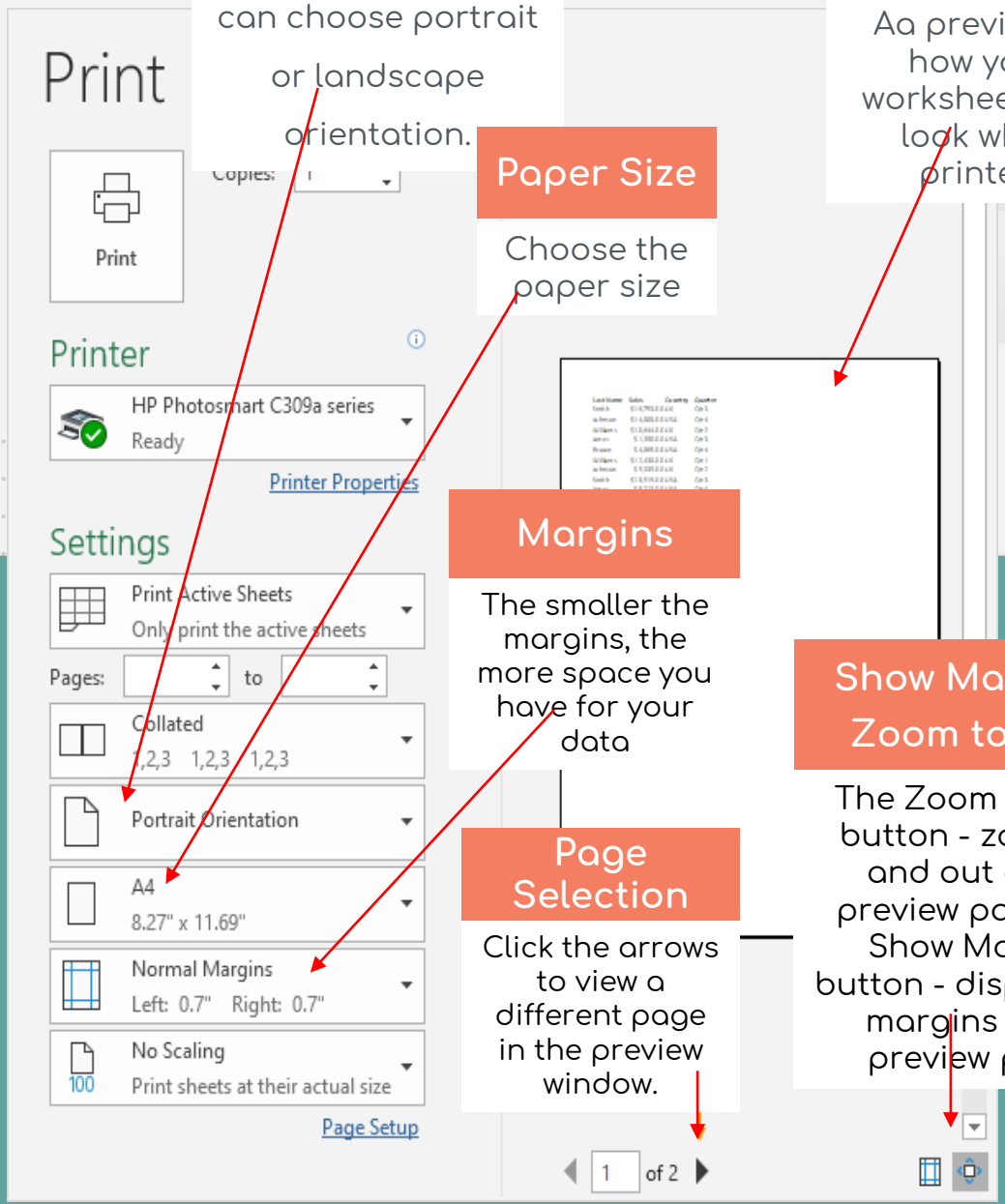
Name	Quiz 1	Quiz 2	Quiz 3	Quiz 4
Ali	50	90	80	80
Tan	90	80	70	60
Raju	80	90	100	100
Lina	70	75	80	85
Mariam	55	75	95	100



CLICK Here - Video Creating Chart

2.13 Print a Worksheet

To print a worksheet in Excel, follow these steps.
1. on the File tab, click Print. 2. to preview the other pages.
2. to preview the other pages that will print, click Next Page or Previous Page at the bottom of the window.



Orientation

can choose portrait or landscape orientation.

Paper Size

Choose the paper size

Preview Pane

Aa preview of how your worksheets will look when printed.

Margins

The smaller the margins, the more space you have for your data

Page Selection

Click the arrows to view a different page in the preview window.

Show Margins / Zoom to Page

The Zoom to Page button - zooms in and out of the preview pane. The Show Margins button - displays the margins in the preview pane..

TUTORIAL

PART 1

SPREADSHEET

Exercise 1

Follow the instructions:

1. Open a blank workbook

2. Write the following entries into the specified cells:

C2 : Annual Fruit Sales		
B3 : 2000	A4 : Orange	F3 : Total
C3 : 2001	A5 : Grape	G3 : Average
D3 : 2002	A6 : Banana	
E3 : 2003		
B4 : 1050	B5 : 2300	B6 : 550
C4 : 1250	C5 : 2500	C6 : 300
D4 : 850	D5 : 1250	D6 : 650
E4 : 1300	E5 : 1450	E6 : 250

3. Merge the cells from A2 to G2. Apply the following changes to the title line:

- Change the horizontal and vertical text alignment to centered.
- Change the row height of row 2 as 30.
- Change the font, font size, font style and font color as Century Gothic, 18,bold, purple.

4. Select the cells from B3 to G3 using the range selector. Then press the Ctrl key on the keyboard and select the cells from A4 to A6. (You can select multiple cells in different parts of the worksheet this way) Now change the font, font size, and font style of the selected cells to Times New Roman, 12, bold italic.

5.Place a border around the data entries and choose a suitable color.

SPREADSHEET

Exercise 2

Follow the instructions:

1. Select the range A1:G1.
- Put the title in bold and increase the font size to 16.
- Click the Merge and Centre tool on Excel's Formatting toolbar.
2. Merge the multiple words in the table as well. 3.
3. Place a border around the data entries and choose a suitable colour.

	A	B	C	D	E	F	G
1	MY TIME TABLE						
2							
3	DAY / TIME	8 - 9 A.M	9 - 10 A.M	10 - 11A.M	11-12 A.M	11-12 A.M	11-12 A.M
4	MONDAY	BM	BM	REST	MATHS	AGM	PJ
5	TUESDAY	BI	MATHS	REST	SC	SC	MZK
6	WEDNESDAY	BI	SC	REST	BM	BM	AGM
7	THURSDAY	MATHS	MATHS	REST	BI	BI	PJ
8	FRIDAY	SC	SC	REST	BM	BM	AGM

Exercise 3

1. Use the Format Painter button on Excel's Standard toolbar to quickly format the second table the way the first table was formatted.

A	B	C	D
1	**SALES**		
2	***January***	RM5,400.00	
3	***February***	RM3,152.00	
4	***March***	RM6,582.00	
5			
6	Sales		
7	January	5,400.00	
8	February	3,152.00	
9	March	6,582.00	

SPREADSHEET

Exercise 4

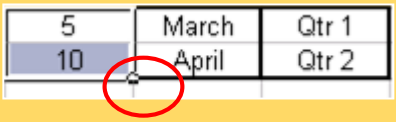
Apply the formatting as follow.

100	Currency
100	Percentage
100000	Thousands comma separator
100.0	Increase decimals

ANSWERS

Exercise 5

1. Insert the data below follow to the columns and rows shows.
2. Select range D4:D5
3. Position the pointer on the "fill box", the small black square in the lower right corner of the selected range.



4. Drag the fill box down so Excel continues the sequence of numbers.
   Do the same for E4:E5 , F4:F5 and H4 .

	D	E	F	H
4	5	March	Qtr 1	MONDAY
5	10	April	Qtr 2	

ANSWERS

PART 2

Exercise 1

1. paste the data below and follow the columns and rows shown 2. select the range C6:D8.
3. from the Excel menus, choose Edit, Copy.
4. click on cell B10
5. in the Excel menus, choose Edit, Paste Special to open the Paste Special dialog box. 6.
6. click the Transpose option at the bottom of the dialog, and then click OK.

	C		D
5	Data in Rows		
6	January	55	35
7	February	23	29
8	March	12	18

Exercise 2

By using MAX, MIN AND SUM function, find the maximum, minimum and sum value within a range of cells.

Building	Height (m)
Four Seasons Place KL	343
Vortex Tower	260
Petronas Twin Tower	452
Telekom Tower	310
Maybank Tower	244

Exercise 3

3. Arrange the following people from the oldest to the youngest and calculate the average age.

Name	Age
Naurah	24
Nuha	17
Naufal	32
Umar	16
Aafiyah	36
Irsyad	21

Exercise 4

Open the new worksheet, and then

a) Enter the following data into cell address

	A	B	C	D	E
1	**EXPENSE PLAN**				
2					
3	Category	Monthly Spend	Annual Spend	Last Year Spend	Percent Change
4	Household Utilities		3600	3000	
5	Food		2500	2250	
6	Gasoline		1500	1200	
7	Clothes		1200	1450	
8	Insurance		1500	1500	
9	Taxes		3500	3200	
10	Entertainment		2000	2250	
11	Vacation		1500	2500	
12	Miscellaneous		1250	1500	
13	Totals				
14		Average Spend			
15		Min Spend			
16		Max Spend			

b) Merge and Center the title 'EXPENSE PLAN' in the range A1:E1

c) Bold the range A3: E3, A4:A13 and B14:B16

d) By using suitable formula, find the value of Monthly Spend and Percent Change.

e) AutoSum the Totals for cells B13 to E13.

f) Use the Average function to find the value in cell C14 and D14

g) Use the Min function to find the value in cell C15 and D15

h) Use the Max function to find the value in cell C16 and D16

i) Format the number of price cells as a currency.

j) Format the column Percent Change as a percentage.

k) Create a pie chart of the Monthly Spend.

ANSWERS

Exercise 5

Follow the instruction below.

a) Create a new worksheet and enter the following data.

	A	B	C	D	E	F	G
1	**The Rest House Food Services**						**Tax Rate = 0.05**
2	**Alexandria - Cairo Express Way**						
3	Item	Unit Price	Quantity	Sub-Total	Tax	Total	
4	Chicken	$ 5.00	3				
5	Tomato	$ 3.00	2				
6	Apple	$ 4.50	4				
7	Orage	$ 2.50	3				
8	Beef	$ 6.00	5				
9	Tea	$ 1.00	9				
10	Banana	$ 0.40	10				
11							
12	**Grand Total**						
13	**Max**						
14	**Min**						

b) Merge and Center A1 to the range A1:F1
c) Merge and Center A2 to the range A2:F2
d) Bold and Center A3:F3
e) Bold A4:A10
f) Calculate the sub-total in cell D4
g) Use the Fill Handle to copy the formula in cell D4 to the range D5:D10
h) Calculate the tax amount in cell E4
i) Use the Fill Handle to copy the formula in cell E4 to the range E5:E10
j) Use the Fill Handle to copy the formula in cell F4 to the range F5:F10
k) Apply the Light Blue Data Bar Conditional Formatting to the range F4:F10
l) Apply the Total Style to the range A12:F12
m) AutoSum the range F4:F10 in cell F12
n) Use the Max function to calculate the Max value of F4:F10 in Cell F13
o) Use the Min function to calculate the Min value of F4:F10 in Cell F14

Exercise 6

6. Follow the instruction below.

a) Open a new spreadsheet file.

b) Create a table as given below.

c) With suitable formula, fill the color parts. (Refer the formula given)

d) Insert the institution logo.

e) Create a bar chart of the total marks of all students.

CONTINUOUS ASSESSMENT

POLITEKNIK MALAYSIA
SULTAN SALAHUDDIN ABDUL AZIZ SHAH

PROGRAMME : DIPLOMA IN CIVIL ENGINEERING
COURSE CODE : DBM10013
CLASS : DKA 1B

No.	Metric No.	Name	QUIZ		TUTORIAL EXERCISE			TEST		TOTAL MARK
			QUIZ 1	25%	TE1	TE2	35%	T1	40%	
1	08DKA20F2021	MUHAMMAD ZAFRI BIN MD FAIRUZ	55		90	80		78		
2	08DKA20F2022	MUHAMMAD HAZIM BIN NAZWI	85		80	95		83		
3	08DKA20F2023	NURUL IZZATI BINTI M RAZALI	100		95	90		90		
4	08DKA20F2024	NUR WAHIDAH BINTI HARUN	90		95	90		91		
5	08DKA20F2025	CHUA YONG WEI	75		90	80		86		
6	08DKA20F2026	MOHD FAIRUZ BIN ROZLAN	85		85	85		83		
7	08DKA20F2027	TINA BINTI MUSTAFA	60		80	75		77		
8	08DKA20F2028	NURFATIN SYAHIRA BINTI MD DIN	55		70	75		72		
9	08DKA20F2029	AINA FARIHAH BINTI AZMI	70		75	95		88		
10	08DKA20F2030	EZWAN BIN AHMAD	65		90	80		81		
HIGHEST MARK										
LOWEST MARK										
AVERAGE MARK										

FORMULA	
QUIZ 25%	=D11/100*25
TUTORIAL EXERCISE 35%	=(F11+G11)/200*35
TEST 40%	=I11/100*40
TOTAL MARK	=E11+H11+J11
HIGHEST MARK	=MAX(D11:D20)
LOWEST MARK	=MIN(D11:D20)
AVERAGE MARKS	=AVERAGE(D11:D20)

ANSWERS

Exercise 7

Follow the instruction below.

a) Create a new worksheet and enter the following data.

	A	B	C	D	E	F	G
1	Market Shares of Major Phone Providers in United States						
2	Cellular Phones Sales During Five Years						
3		Q1 2008	Q1 2009	Q1 2010	Q1 2011	Q1 2012	Total Sales
4	Verizon	213554	655487	754665	884657	922354	
5	ATT	323154	421325	512312	554654	864458	
6	All-Tel	402513	521325	521145	564879	587546	
7	Sprint	186545	199844	256455	384564	584654	
8	T-Mobile	152231	251325	321123	564458	654854	
9							
10	Yearly Sales						
11	Max						
12	Min						
13	Average						
14							

b) Merge and Center the title "Market Shares of Major Phones Providers in the United States" in the range A1:G1
c) Change the title font to Cambria 14 pt. Bold
d) Merge and Center the sub-title "Cellular Phones Sales During Five Years" in the range A2: G2
e) Change the sub-title font to Time New Roman, Bold
f) Bold the range A3:A13 and B3:G3
g) Apply Total style to the range A10:F10
h) Type =B4+B5+B6+B7+B8 in cell B10, then press enter
i) Use the AutoSum function to calculate the total in cell C10 for the range C4:C8
j) Use the Fill Handle to copy the function in cell C10 to the range D10:F10
k) AutoSum the range B4:F4 in cell G4
l) Use the Fill Handle to copy the function in cell G4 to the range G5:G8
m) AutoFit the contents of each column (Do not display #######)
n) Add the $ sign from the range B4:F8 and set the Decimal Places to 0
o) Use the Max function to display the highest value of the range B4:B8 in cell B11
p) Use the Min function to display the lowest value of the range B4:B8 in cell B12
q) Calculate the average of the range B4:B8 in cell B13
r) Select the range B11:B13 and use the Fill Handle to copy the functions in these cells to the range C11:G13
s) Delete row 9

ANSWERS

PART 3

SPREADSHEET

Exercise 1

Follow the instructions:

1. Download the Vlookup Exercise table here:

Playground Safety Checks

Site Code	Site Location	Swings	Slides	Rocker	Climbing Frame	Overall Result
A001	Lake Garden	6	8	7	9	Fail
A002	Bukit Jalil Park	8	9	8	9	Pass
A003	Sunway Playground	5	7	7	8	Fail
A004	Titiwangsa Lake	9	8	8	9	Pass
A005	Tasik Perdana Park	7	8	7	8	Fail
A006	Putrajaya Park	8	6	8	8	Fail
A007	Taman Merdeka	7	8	9	8	Pass

Site Code:	
Location:	
Swings:	
Slides:	
Rocker:	
C/Frame:	
Overall:	

<--- Change Code here

2. Find the data by insert the formula of VLOOKUP. (Change the code to see another result.

References

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Terbitan:

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SULTAN SALAHUDDIN ABDUL AZIZ SHAH

e ISBN 978-967-2044-57-4