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INTRODUCTION

Microsoft Excel is a commercial spreadsheet application written and distributed by Microsoft for Microsoft Windows and Mac OS X. It features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications. It has been a very widely applied spreadsheet for these platforms, especially since version 5 in 1993, and it has almost completely replaced Lotus 1-2-3 as the industry standard for spreadsheets. Excel forms part of Microsoft Office.

Excel Update versions are very powerful spreadsheet application that allows to produce tables containing calculations and graphs. These can range from simple formulae through to complex functions and mathematical models. Microsoft Excel has the basic features of all spreadsheets, using a grid of cells arranged in numbered rows and letter-named columns to organize data manipulations like arithmetic operations.
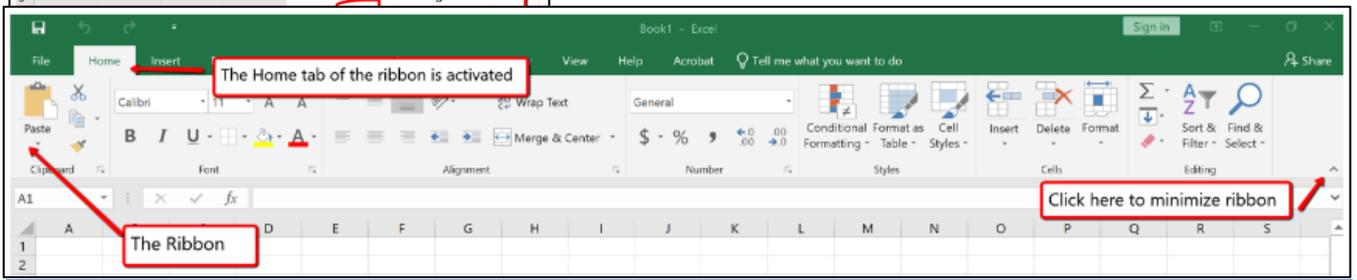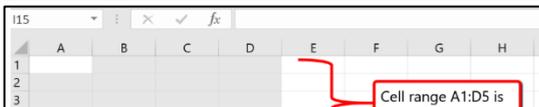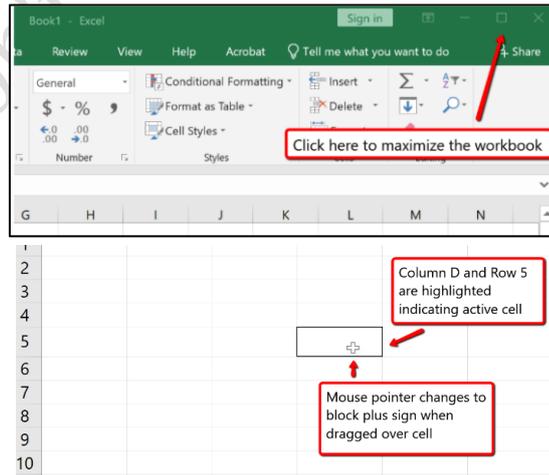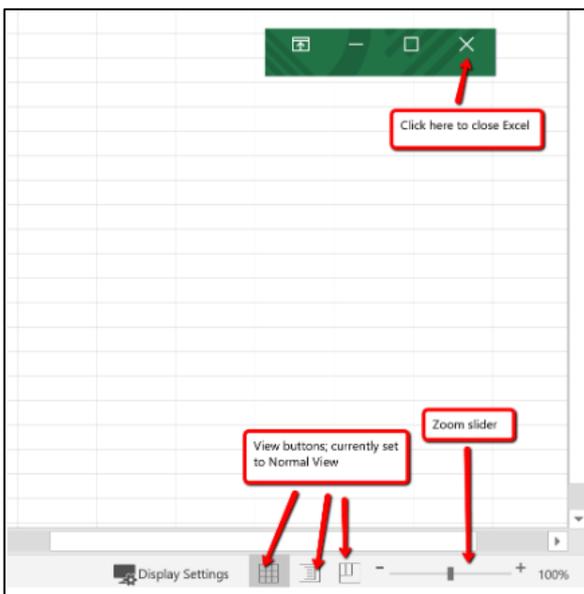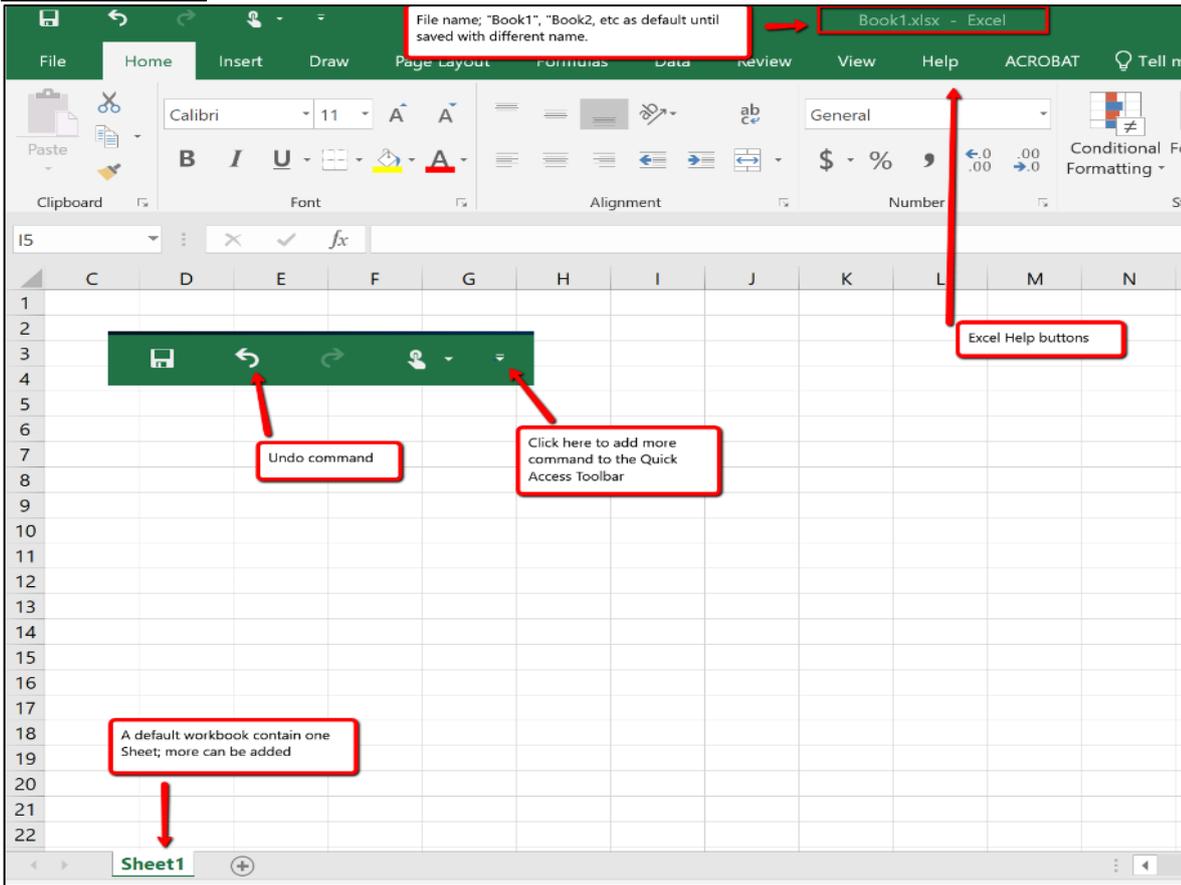
Excel supports charts, graphs, or histograms generated from specified groups of cells. The generated graphic component can either be embedded within the current sheet, or added as a separate object.

Microsoft Excel for Windows release history

| Year	Name	Version	Comments
1987	Excel 2	2.0	Renumbered to 2 to correspond with contemporary Macintosh version. Supported macros (later known as Excel 4 macros).
1990	Excel 3	3.0	Added 3D graphing capabilities
1992	Excel 4	4.0	Introduced auto-fill feature
1993	Excel 5	5.0	Included Visual Basic for Applications (VBA) and various object-oriented options
1995	Excel 95	7.0	Renumbered for contemporary Word version. Both programs were packaged in Microsoft Office by this time.
1997	Excel 97	8.0	
2000	Excel 2000	9.0	Part of Microsoft Office 2000, which was itself part of Windows Millennium (also known as "Windows ME").
2002	Excel 2002	10.0	
2003	Excel 2003	11.0	Released only 1 year later to correspond better with the rest of Microsoft Office (Word, PowerPoint, etc.).
2007	Excel 2007	12.0	
2010	Excel 2010	14.0	Due to superstitions surrounding the number 13, Excel 13 was skipped in version counting.
2013	Excel 2013	15.0	Introduced 50 more mathematical functions (available as pre-packaged commands, rather than typing the formula manually).
2016	Excel 2016	16.0	Part of Microsoft Office 2016

Reference

https://en.wikipedia.org/wiki/Microsoft_Excel

Excel Screen

A workbook is a collection of sheets saved together under one filename. You can customize excel to give any number of sheets from one to 255. Excel worksheet consists
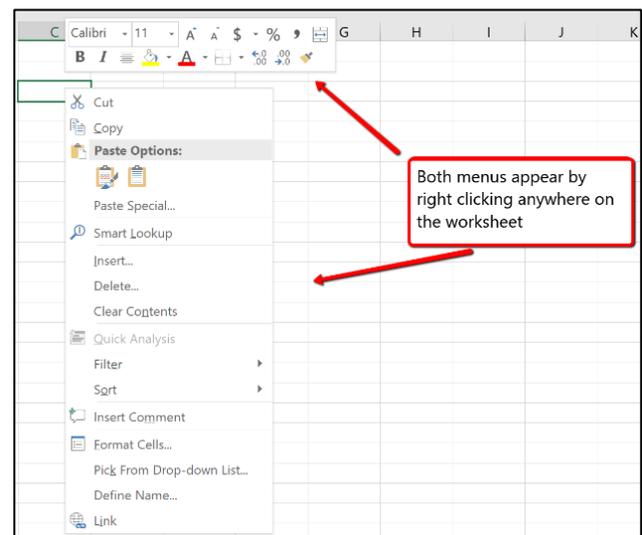
of 16384 columns listed in alphabetical order and 1048576 rows listed by number.

Customizing the Quick Access Toolbar
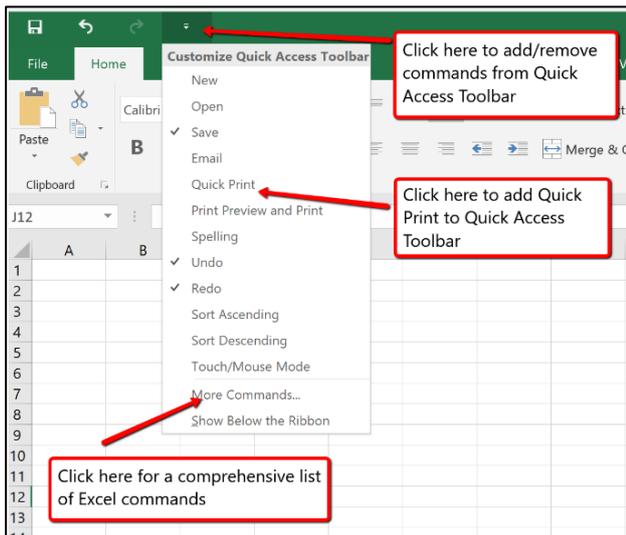

Right-Click Menu

Entering Data and Numbers

In excel, you have to press the Enter key on your keyboard to accept the data before you do anything with it. Your numeric entries can be the entire range of numeric values; whole numbers, decimals and scientific notation. Excel displays scientific notation automatically if you enter a number that is too long to be viewed.

Filling Data

Press here to autofill
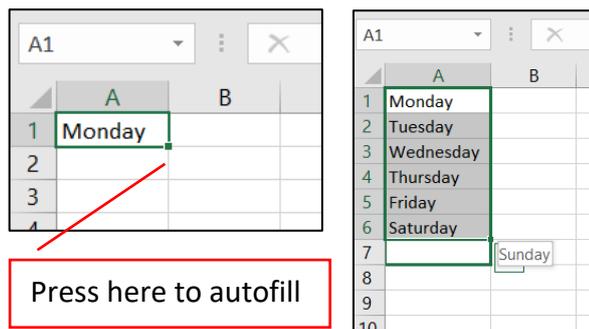
Monday, January. These are days and months, so you can autofill by writing only one cell. But numbers can't autofill like that. So, you should write down two cells.
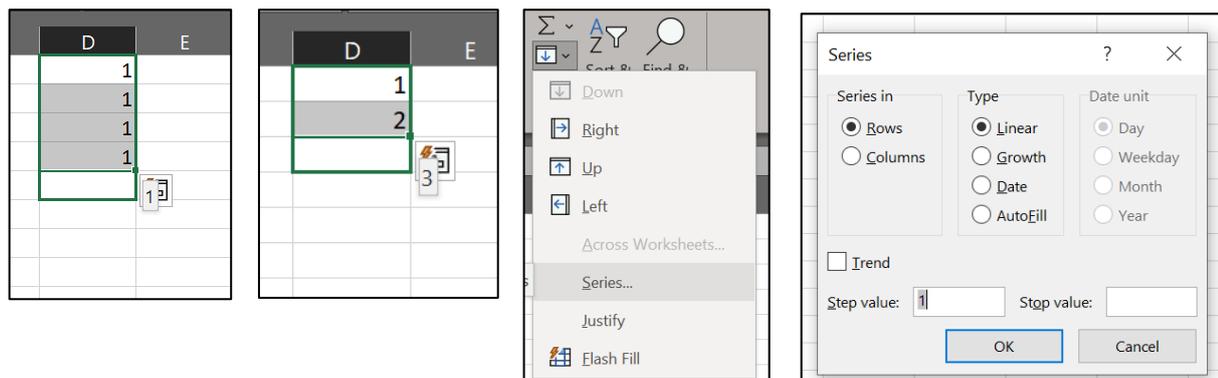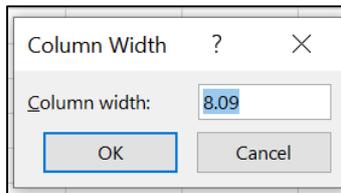
Editing the row and column

Change row height

Place mouse pointer between row headings. When plus pointer appears, drag mouse pointer.

Change column width

Place mouse pointer between column headings. When plus pointer appears, drag mouse pointer.
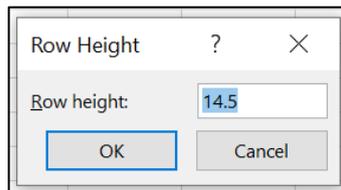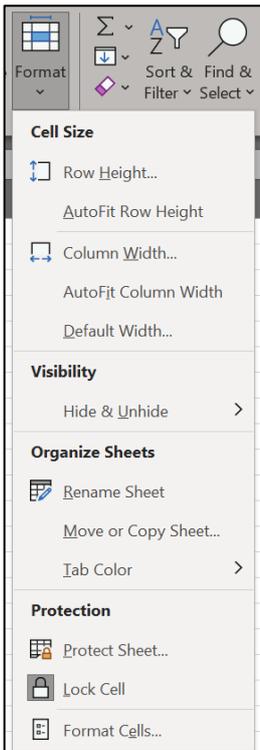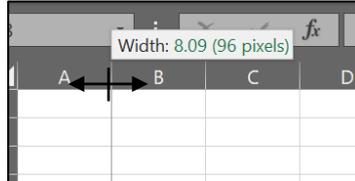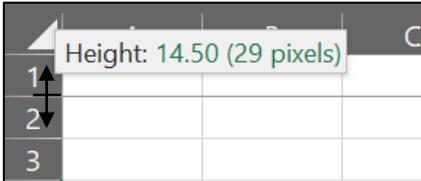
All Columns, Rows will change. You can click AutoFit or select all and then double click on it.

Inserting Cells, Rows, Columns and Sheets   **Deleting Cells, Rows, Columns and Sheets**
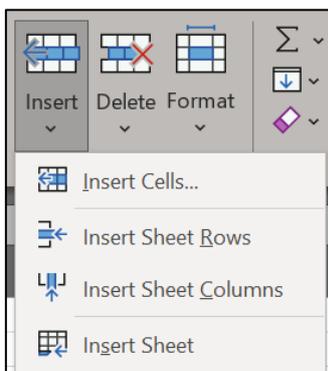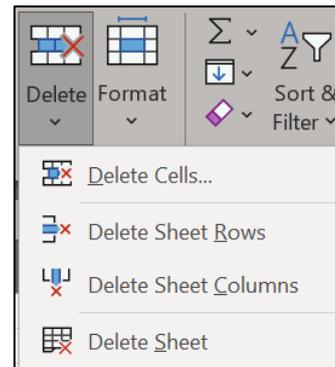
Calculation

Mathematical Operators and their meanings

Operator Symbol Meaning

+   Addition

-      Subtraction

*   Multiplication

/   Division

==

Excel Functions

Functions are predefined formula. Excel has over 250 functions, which per from a verity of calculations.

Function Calculation

Math's Function

SUM   ; To find the total value for the specified cell range.

AVERAGE   ; To find the average value.

MAX   ; To find the maximum value.

MIN   ; To find the minimum value.

Character Function

Len   ; To find the length of the text data.

Lower   ; To change the small letter.

Upper   ; To change the capital letter.

Proper   ; To change the title case.

Logical Function

= IF (condition, true, false)

= COUNT (range, criteria)

= SUMIF (range, criteria, sum_range)

Comparison Operators and this meaning

Operator Symbol	Comparison Meaning
=	Equal to
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to

< >   Not Equal to

Information
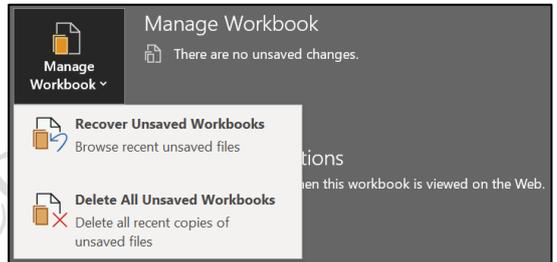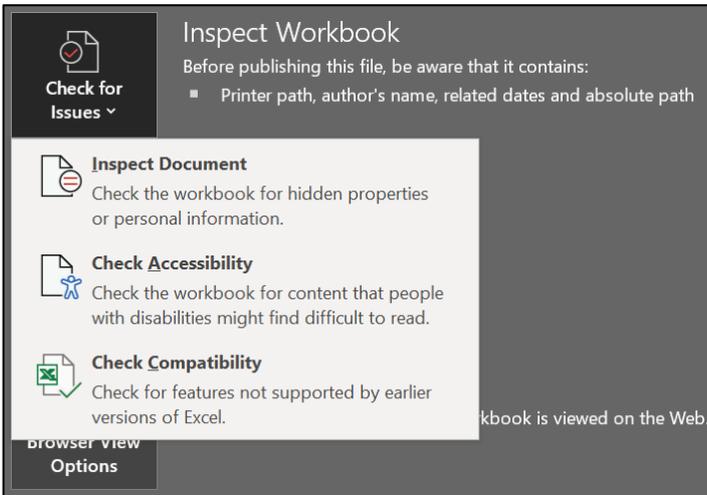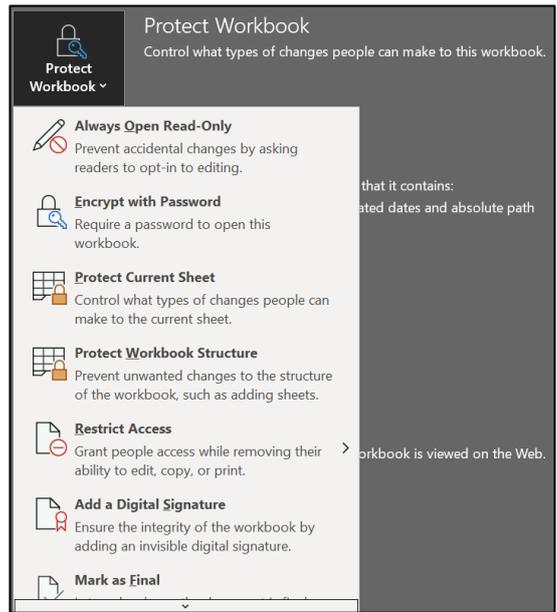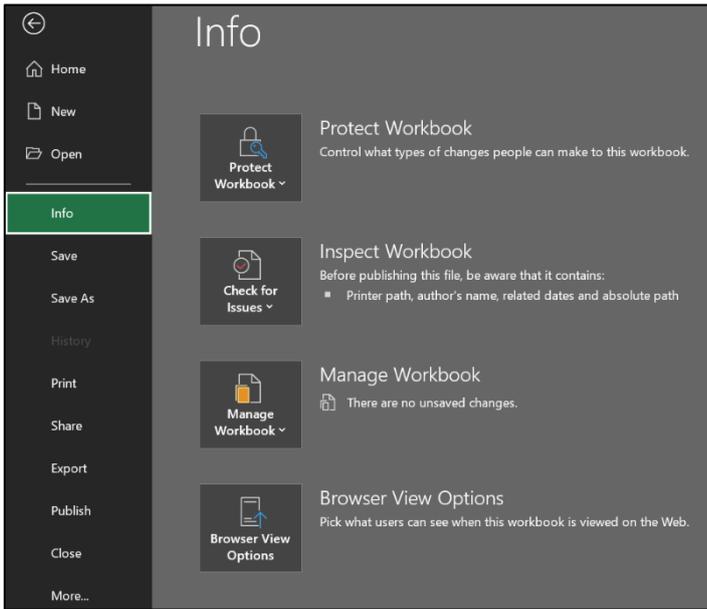
Page Formatting
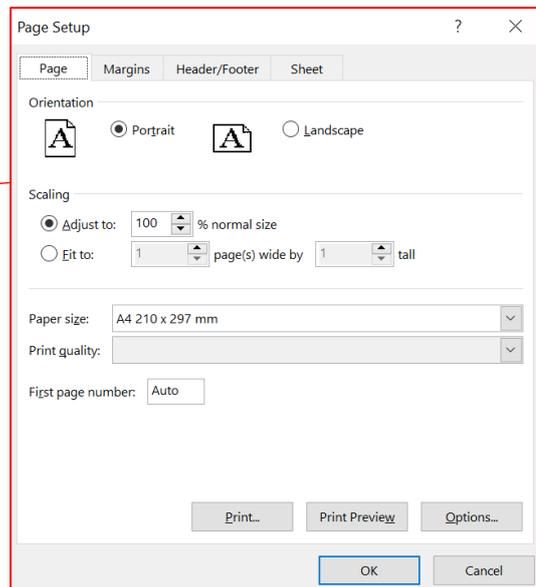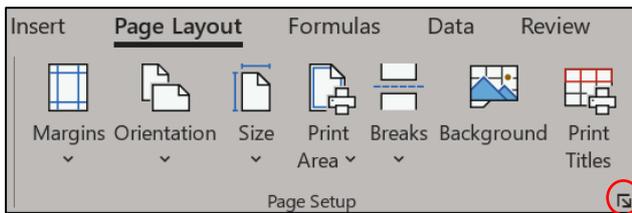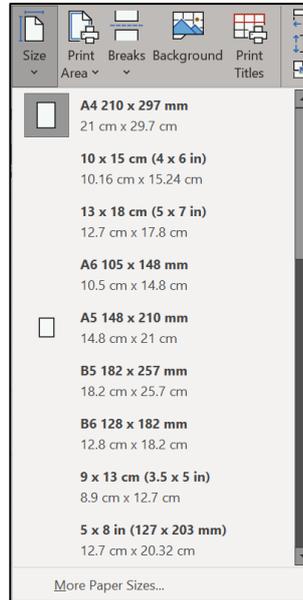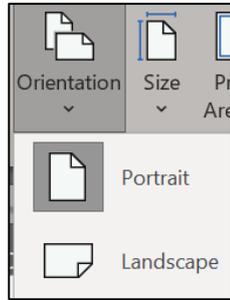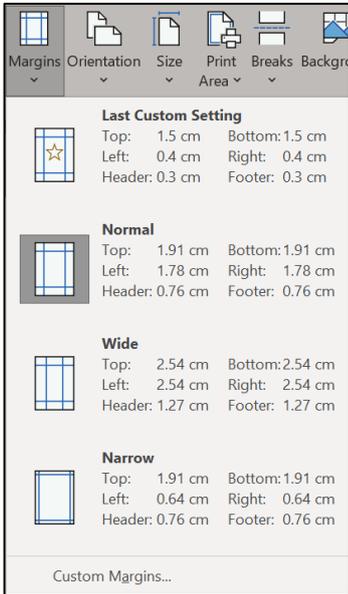
Header and Footer
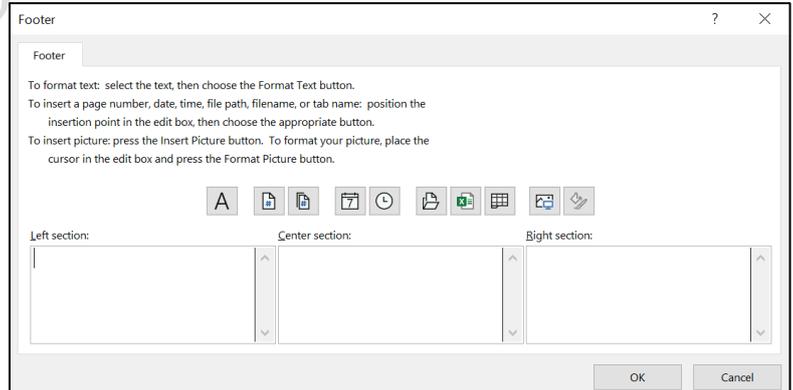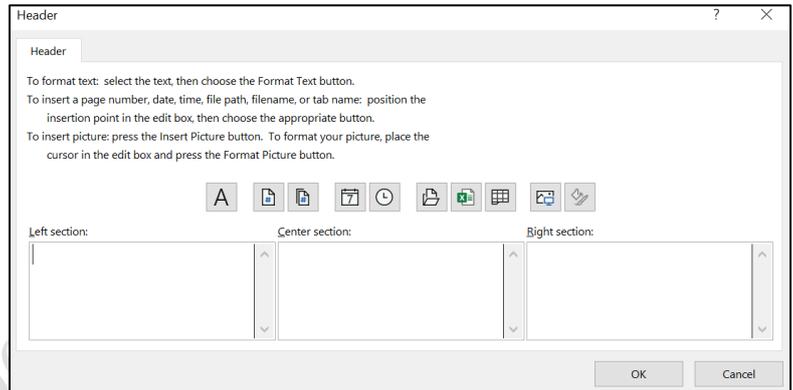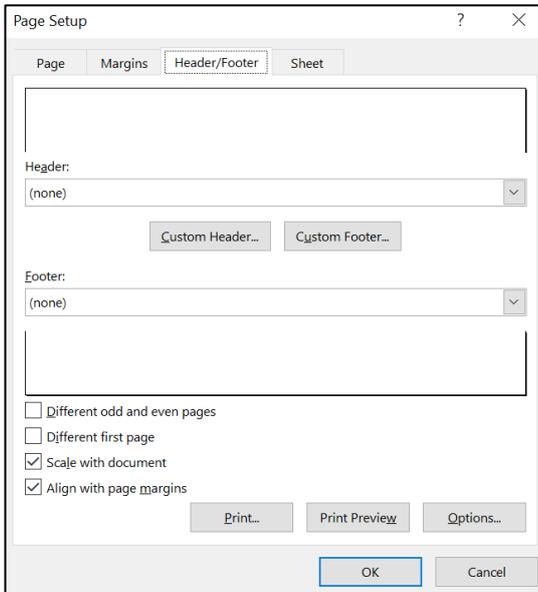
Number Style
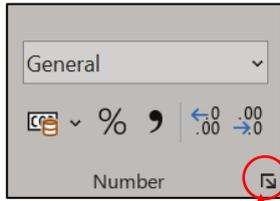
Select the cell or cell arrange you would like to format desired icon in Number group at Home Tab. Format Data Using Number Tab.
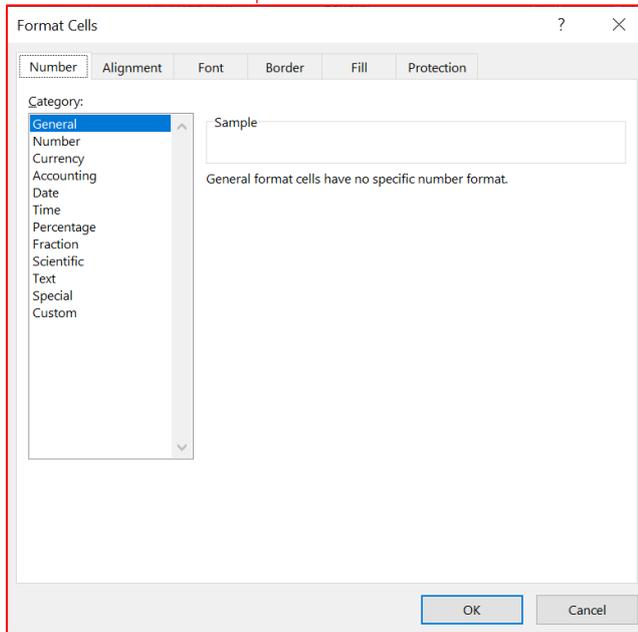
Alignment
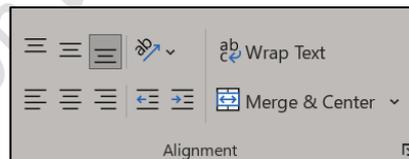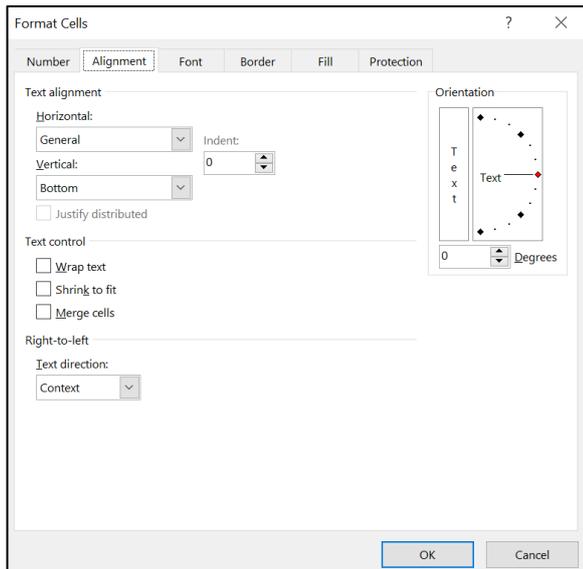
Select the cell or cell range. Click Align text Left, Center, Align text Right on Home Tab.

Merge Cell, Select the cell (more than one column or row) you want to center. Click Merge & Center on Home Tab in the Alignment group.

Font
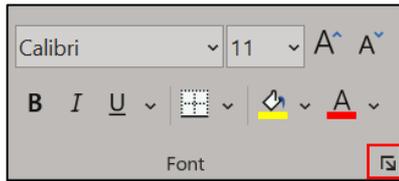
Select the cell or cell range you want to format. Click Home Tab, choose options in Font group such as Font, Size, Bold, Italic, Underline, etc.)
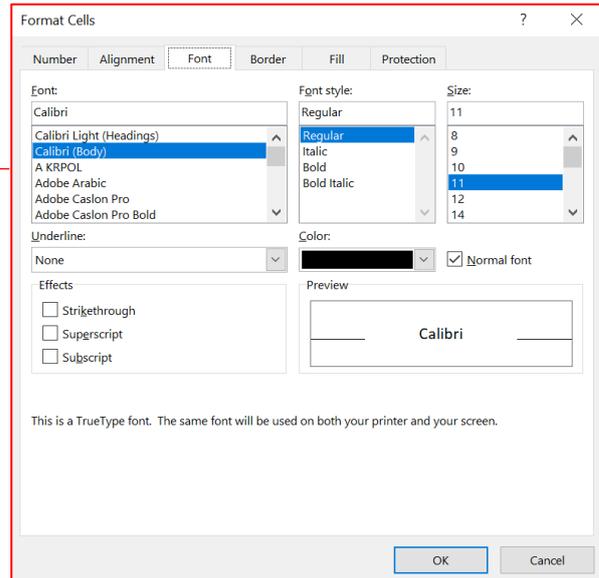
Border
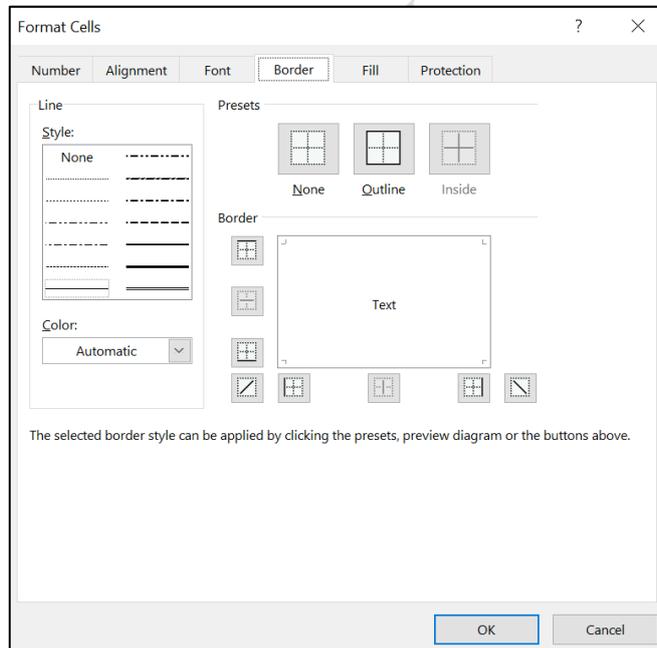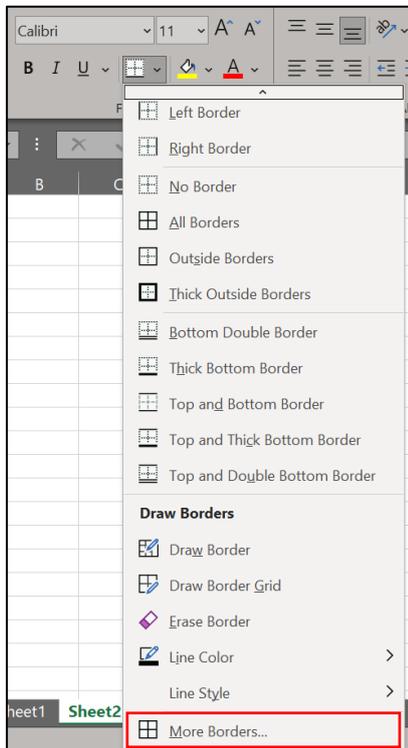
Data Management
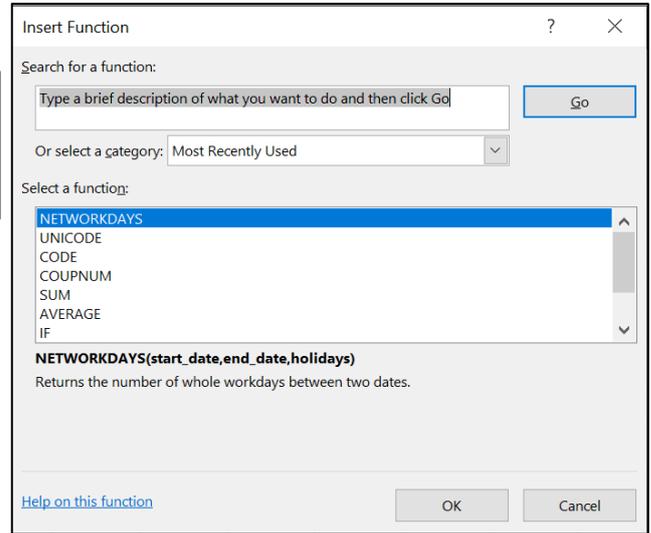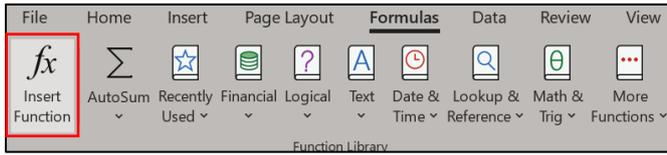
Creating the Sorting
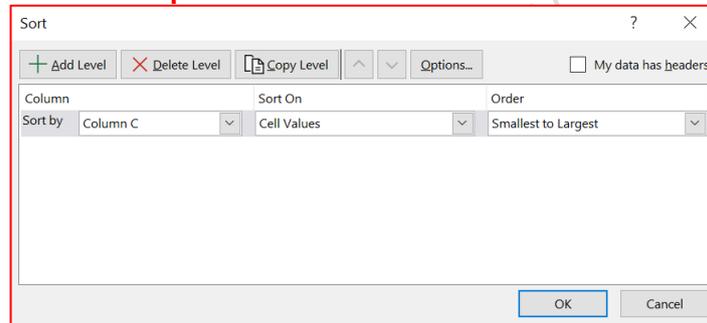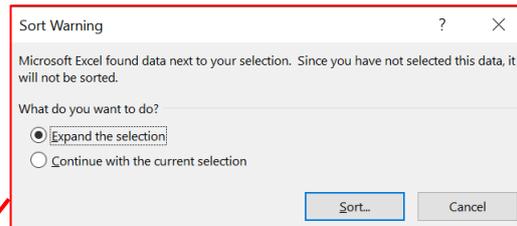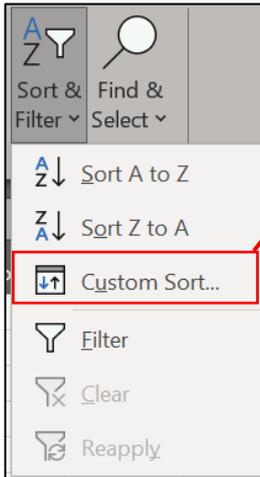
Creating the Subtotal

Make sure column you want to create Subtotal is Sorted before using the Subtotal feature.
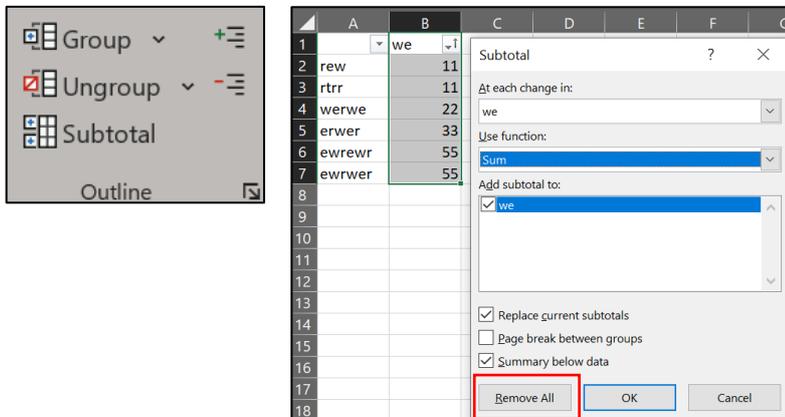
When you have finished viewing or printing the Subtotal data. Click on any cell containing data. Choose Data Tab and Click Subtotal in the outline group. Click Remove All button. Your list is returned to its original format.

Creating the Data Validation

When you want to make sure that correct data is entered on a worksheet, you can specify with data is valid for individual cells ranges. You can restrict the data to a particular type.
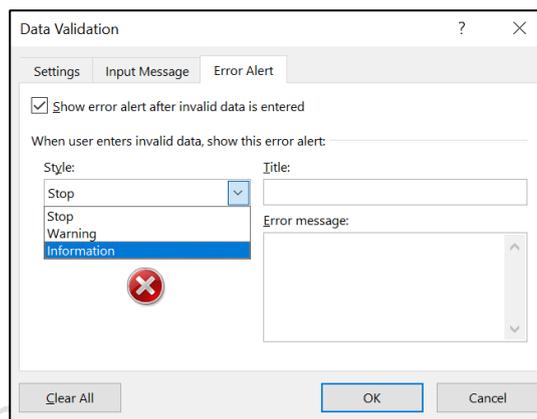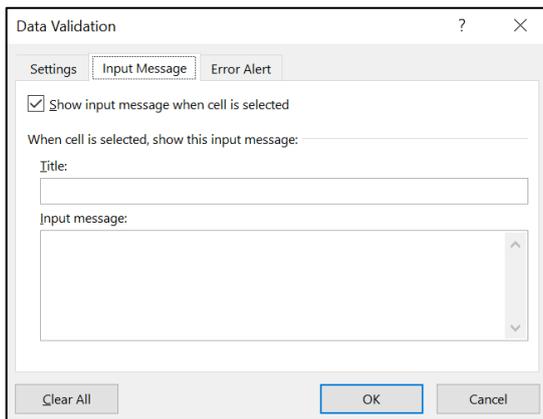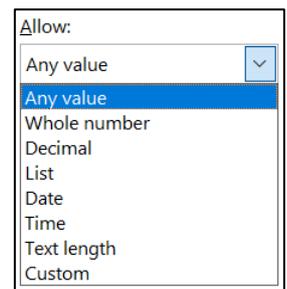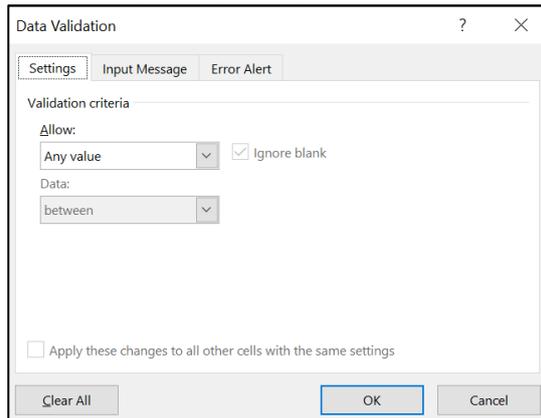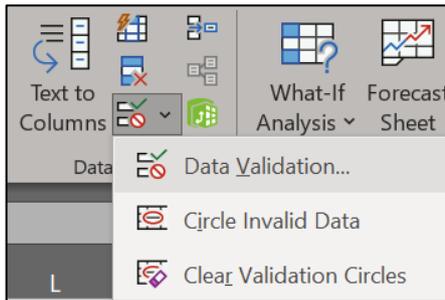
Creating and Editing Chart

You can use many Excel options to represent your worksheet's information visually. Charts give you a big-picture view. This makes your data ease to interpret than the form in spreadsheet format. Excel makes the process of creating a new chart in a worksheet as possible. Creating a new chart is the four steps Chart Wizard.
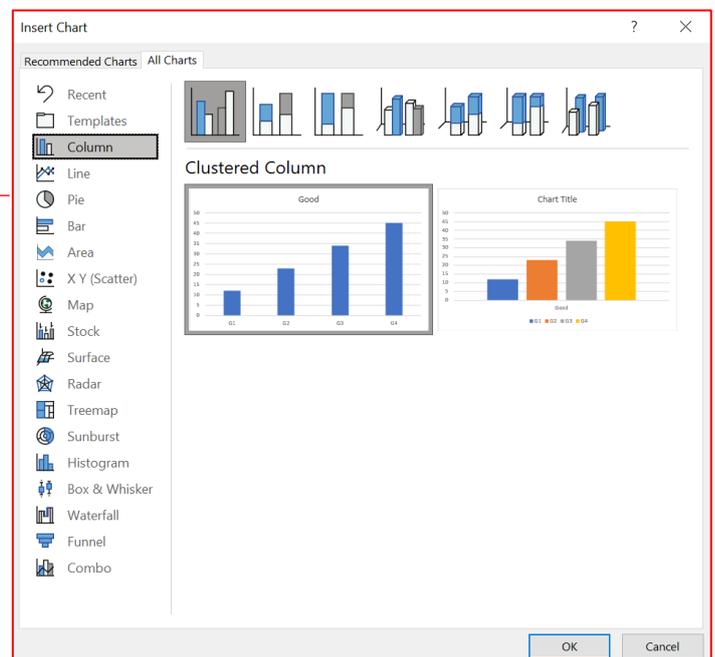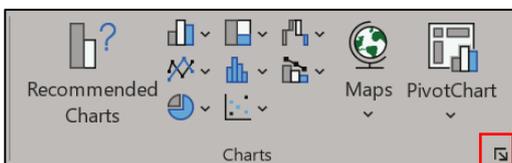
When you choose a chart, you will get two new Tab, Chart Design and Format.
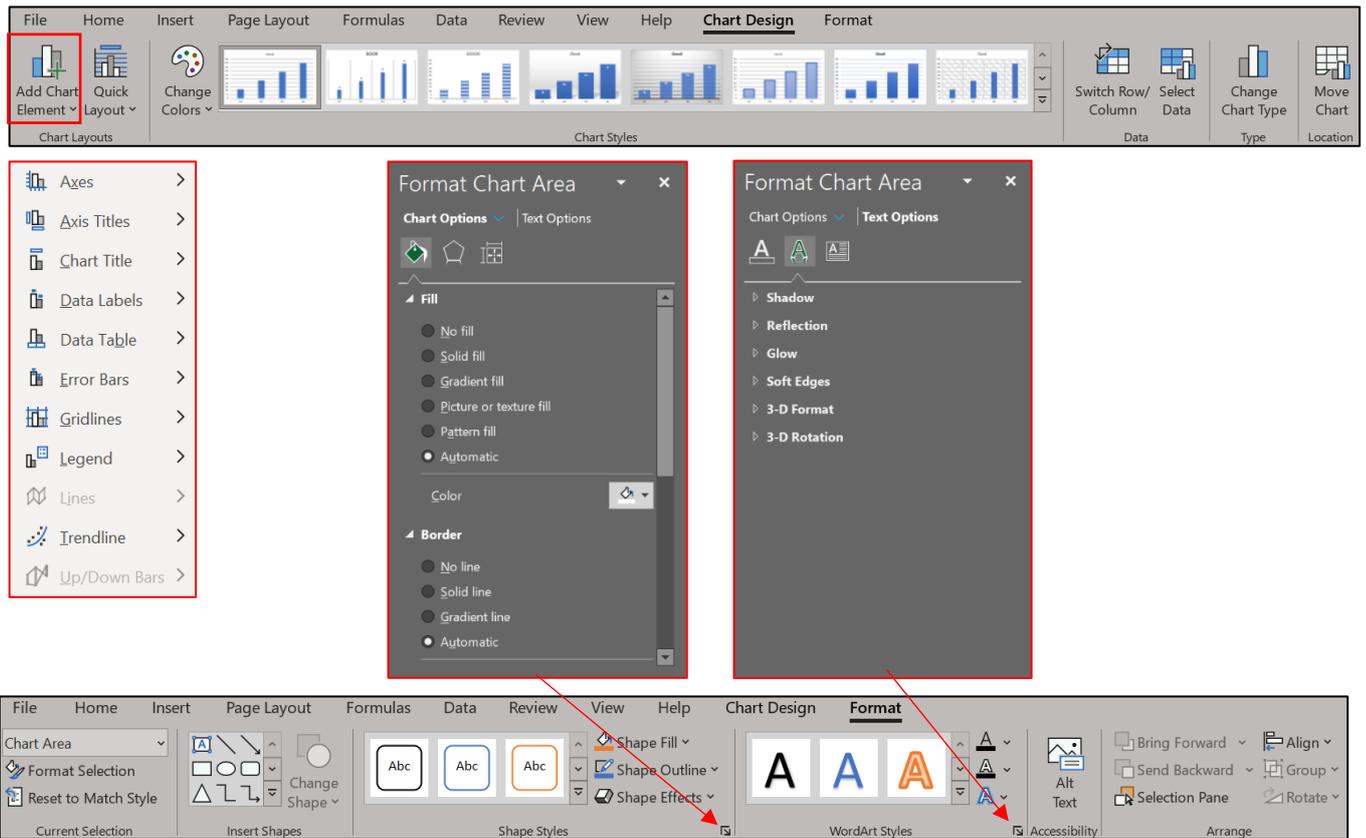
Create SmartArt Graphic

Choose a SmartArt Graphic dialog box will appear. Choose the name and select the required diagram.
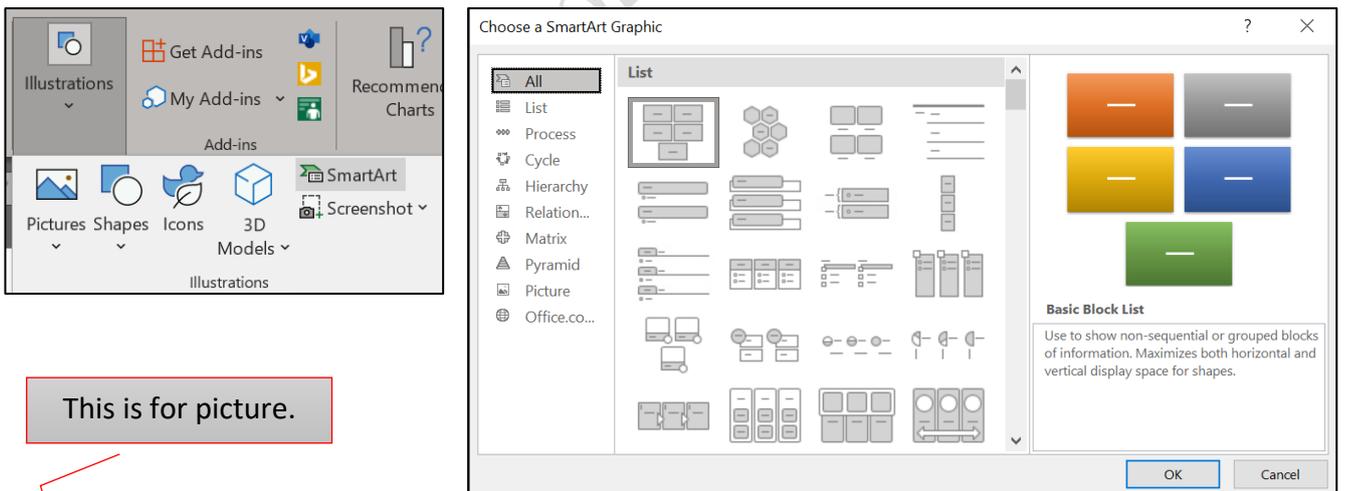
This is for picture.
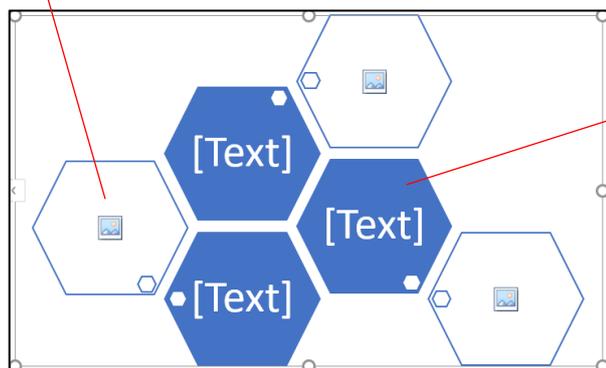
This is for text.

Exercise (1)

(1) Headings are Arial Black font, Size 13pts, Bold and Center.

(2) Other text must be Time New Roman font, and Size 12pts.

(3) Merge two cells for TOTAL, MAX, MIN, MED, AVE.

(4) All the price column must be Comma Style only and no decimal.

(5) Answer all the blank.

S No.	S Name	TOTAL SALES	QUANTITY	PRICE/UNIT
1	ACER	2000000	3	
2	TOSHIBA	1850000	4	
3	LENOVO	2100000	3	
4	SONY	1700000	6	
5	DELL	2340000	2	
6	FUJITSU	2150000	1	
7	SUMSAUNG	3000000	1	
8	HP	2400000	2	
TOTAL				
MAXIMUM				
MINIMUM				
MEDIAN				
AVERAGE				

==

Ans;

S No.	S Name	TOTAL SALES	QUANTITY	PRICE/UNIT
1	ACER	2,000,000	3	666,666.67
2	TOSHIBA	1,850,000	4	462,500.00
3	LENOVO	2,100,000	3	700,000.00
4	SONY	1,700,000	6	283,333.33
5	DELL	2,340,000	2	1,170,000.00
6	FUJITSU	2,150,000	1	2,150,000.00
7	SUMSAUNG	3,000,000	1	3,000,000.00
8	HP	2,400,000	2	1,200,000.00
TOTAL		17,540,000	22	9,632,500
MAXIMUM		3,000,000	6	3,000,000
MINIMUM		1,700,000	1	283,333
MEDIAN		2,125,000	3	935,000
AVERAGE		2,192,500	3	1,204,063

Exercise (2)

(1) Main Heading is Hobo std font, Size 17pts, Merge & Center.

(2) Column heading and other text are Time New Roman font, Size 11pts and Bold effect.

(3) Price, Value and Tax column is "$" style format with 2 decimals.

(4) Value = Price * Qty. Tax = 12.5% of Value Tax.

(5) Find the Total Value is requiring column.

ANGLE COSMETIC AGENCI				
COSMETIC ITEMS	PRICE $	QUANTITY	VALUE $	TAX $
FICIAL FOAM	3500	16		
DAY CREAM	2650	32		
NIGHT CREAM	2,400	18		
SHAMPOO	5,800	21		
MAKE UP	12,300	12		
TOTAL				

===

Ans;

ANGLE COSMETIC AGENCI				
COSMETIC ITEMS	PRICE $	QUANTITY	VALUE $	TAX $
FICIAL FOAM	$ 3,500.00	16	$ 56,000.00	$ 7,000.00
DAY CREAM	$ 2,650.00	32	$ 84,800.00	$ 10,600.00
NIGHT CREAM	$ 2,400.00	18	$ 43,200.00	$ 5,400.00
SHAMPOO	$ 5,800.00	21	$ 121,800.00	$ 15,225.00
MAKE UP	$ 12,300.00	12	$ 147,600.00	$ 18,450.00
TOTAL			$ 453,400.00	$ 56,675.00

Exercise (3)

(1)   Main Heading is Tahoma font, Size 18pts, Bold and Merge & Center.

(2)   Other text must be Calibri Light Font, 12pts.

(3)   All cost column is "K" and no decimal place.

(4)   Charges Tax = 5.2% of Sale Amount.

(5)   Gross Income = Sale Amount – Charges Tax.

(6)   Net Incomes = Service Charges + Gross Incomes.

S.S Mobile Phone Sales & Services Center						
No.	PHONE NAME	SALE AMOUNT	SERVICE CHARGES	CHARGES TAX	GROSS INCOMES	NET INCOMES
1	APPLE	1500000	100000			
2	NOKIA	540000	40000			
3	SAMSUNG	680000	35000			
4	ZTE	450000	12000			
5	HUAWEI	500000	13500			
6	SONY	490000	10000			
7	VIVO	370000	7000			

===

Ans;

S.S Mobile Phone Sales & Services Center						
No.	PHONE NAME	SALE AMOUNT	SERVICE CHARGES	CHARGES TAX	GROSS INCOMES	NET INCOMES
1	APPLE	1,500,000 K	100,000 K	78,000 K	1,422,000 K	1,522,000 K
2	NOKIA	540,000 K	40,000 K	28,080 K	511,920 K	551,920 K
3	SAMSUNG	680,000 K	35,000 K	35,360 K	644,640 K	679,640 K
4	ZTE	450,000 K	12,000 K	23,400 K	426,600 K	438,600 K
5	HUAWEI	500,000 K	13,500 K	26,000 K	474,000 K	487,500 K
6	SONY	490,000 K	10,000 K	25,480 K	464,520 K	474,520 K
7	VIVO	370,000 K	7,000 K	19,240 K	350,760 K	357,760 K

Exercise (4)

(1) Main Heading is Arial Narrow font, Size 16pts, Bold and Fill color effect.

(2) Column Heading is Century font, 10pts and Bold.

(3) Other texts are Century Gothic font, 11pts.

(4) Sale Amount Column are "£" style and punctuate format with 2 decimals.

(5) SALES AMOUNT = SALE VEHICLE * SALE PRICE.

(6) If the Sale Vehicle is greater than 8 then 3.2% of Sales Amount else "No Bonus" in Bonus Column.

HI-SPEED VEHICLE SALES & SERVICES AGENCIES						
NO.	MODEL NAME	VEHICLE NAME	SALE VEHICLE	SALE PRICE	SALES AMOUNT	BONUS
1	Mr. Jone Son	Toyota Corolla	12	30225		
2	Mrs. Jerry	Ford F-Series	6	43970		
3	Mr. Thaw Gay	Honda Civic	4	36495		
4	Mrs. Paw Eh	VW Tiguan	15	30995		
5	Mrs. Wah Poe	RAM Truck	10	54900		

==

Ans;

HI-SPEED VEHICLE SALES & SERVICES AGENCIES						
NO.	MODEL NAME	VEHICLE NAME	SALE VEHICLE	SALE PRICE	SALES AMOUNT	BONUS
1	Mr. Jone Son	Toyota Corolla	12	£30,225.00	£362,700.00	£11,606.40
2	Mrs. Jerry	Ford F-Series	6	£43,970.00	£263,820.00	No Bonus
3	Mr. Thaw Gay	Honda Civic	4	£36,495.00	£145,980.00	No Bonus
4	Mrs. Paw Eh	VW Tiguan	15	£30,995.00	£464,925.00	£14,877.60
5	Mrs. Wah Poe	RAM Truck	10	£54,900.00	£549,000.00	£17,568.00

Exercise (5)

(1) Main Heading is Algerian font, Size 20pts, Bold effect and Merge and Center.

(2) Column heading and other text are Bookman Old Style font, 11pts and Bold effect.

(3) Sale Amount column is "¥" style format with 2 decimals.

(4) Calculate must be percentage is according to the Sales Amount total.

(5) If percentage is greater than or equal 20% than 5% of Sale Amount else 2% of Sale Amount in Bonus Column.

ELECTRONICS SUPER MARKET				
NO	COUNTER NAME	SALE AMOUNT	PERCENTAGE	BONUS
1	TV	1880		
2	Refrigerator	7999		
3	Air conditioner	5999		
4	Portable-EVD	700		
5	Washer	999		
TOTAL				

==

Ans;

ELECTRONICS SUPER MARKET				
NO	COUNTER NAME	SALE AMOUNT	PERCENTAGE	BONUS
1	TV	¥ 1,880.00	10.70%	¥ 37.60
2	Refrigerator	¥ 7,999.00	45.51%	¥ 399.95
3	Air conditioner	¥ 5,999.00	34.13%	¥ 299.95
4	Portable-EVD	¥ 700.00	3.98%	¥ 14.00
5	Washer	¥ 999.00	5.68%	¥ 19.98
TOTAL		¥ 17,577.00	100.00%	

Exercise (6)

(1) Main Heading is Comic Sans MS font, Size 18pts, and Bold effect.

(2) Column Heading is Time New Roman font, 12pts, Other text are normal.

(3) To calculate Pass or Fail, if each mark is greater than or equal 50 than display "pass" else "fail".

(4) To calculate Distinction, if each mark is greater than 80 then display "Distinction" else "No Distinction".

IDCS STUDENT EXAMINATION RESUIT								
NO.	STUDENT NAME	COURSES					Pass/Fail	Distinction
		Word	Excel	PowerPoint	Photoshop	CorelDraw		
1	Saw Eh Gay	78	82	65	50	77		
2	Saw Poe Chit	80	76	91	85	83		
3	Saw Moe Eh	60	45	32	16	70		
4	Naw Paw Shwe	50	38	45	73	61		
5	Naw Thaw Thaw	79	88	76	93	85		
6	Naw Wah Wah	90	93	78	82	76		
7	Saw Aung Oo	25	69	45	73	55		
8	Saw Thar Thar	50	79	73	40	96		

===

Ans;

IDCS STUDENT EXAMINATION RESUIT								
NO.	STUDENT NAME	COURSES					Pass/Fail	Distinction
		Word	Excel	PowerPoint	Photoshop	CorelDraw		
1	Saw Eh Gay	78	82	65	50	77	pass	distinction
2	Saw Poe Chit	80	76	91	85	83	pass	distinction
3	Saw Moe Eh	60	45	32	16	70	fail	no distinction
4	Naw Paw Shwe	50	38	45	73	61	fail	no distinction
5	Naw Thaw Thaw	79	88	76	93	85	pass	distinction
6	Naw Wah Wah	90	93	78	82	76	pass	distinction
7	Saw Aung Oo	25	69	45	73	55	fail	no distinction
8	Saw Thar Thar	50	79	73	40	96	fail	distinction

Exercise (7)

Draw a Column graph. Show the Monthly Report with title, X, Y axis and legend is beside of the graph.

Center Name	January	February	March	April
Center A	300	222	298	302
Center B	289	310	299	300
Center C	301	305	210	257
Center D	108	200	233	299

Monthly Report

	January	February	March	April
Center D	108	200	233	299
Center C	301	305	210	257
Center B	289	310	299	300
Center A	300	222	298	302
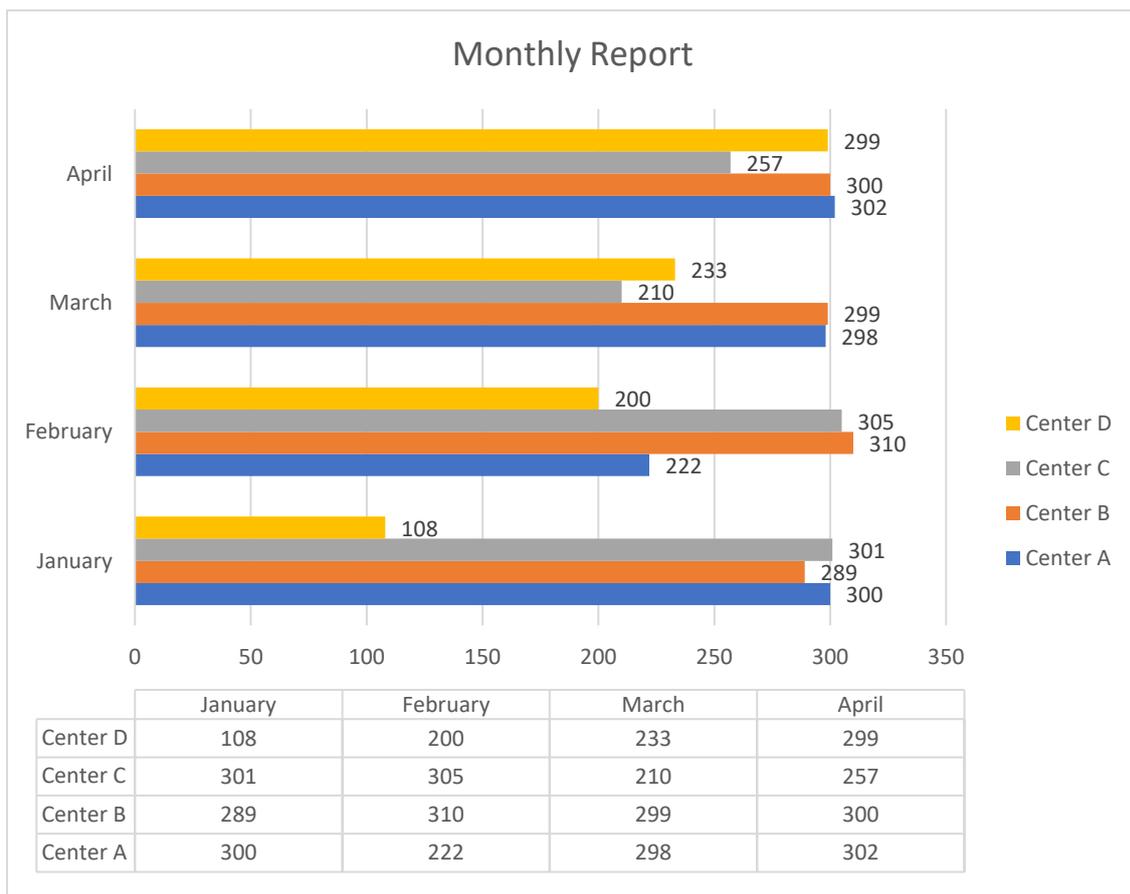
Exercise (8)

Draw a Pie graph. Show the MK Store with title, labels and legend is bottom of the graph.

Counter Name	December
Counter A	634,500 $
Counter B	439,872 $
Counter C	558,340 $
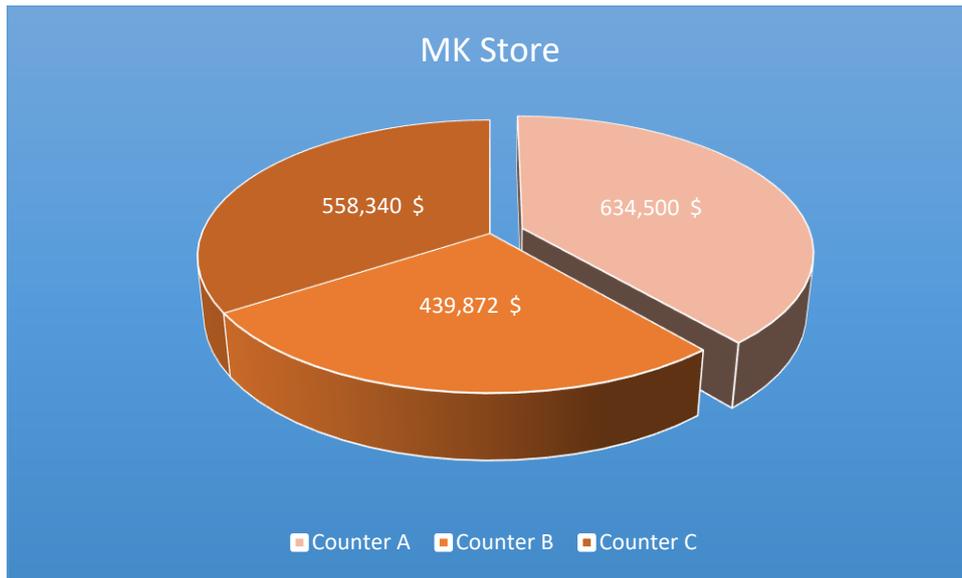
Exercise (9)

Data Management Exercise.

No.	Book List	Price	Quantity	Total
1	Microsoft Word A1	80	150	
2	Microsoft Excel A2	99.5	100	
3	Photoshop CS6	85	143	
4	CorelDraw 2020	90.25	60	
5	English Foundation	50.5	78	
6	Computer Technology	120	59	
7	Multimedia Specialist	124.5	113	
8	Auto CAD 2020	110	39	
9	Power Director 13	98	105	
10	Illustrator CS6	68.5	200	
11	Network Professional (N+)	135	120	
12	Database Administrator	100	80	
13	Internet & Email	48.25	75	
14	Desktop Publishing	70	60	
15	Software Fundamentals	79.5	130	
16	Hardware Fundamentals	79.5	123	

1. Find Total.
2. Show the staff table in the data with Ascending or Descending order.
3. Make Validation.
4. Condition 1 is less than 70 and text color is Red.
5. Condition 2 is greater than or equal to 10000 and text color is Green.

Exercise (10)

တၢ်ဟ့ဉ်နီၤလီၤတၢ်မၤစၢၤအတၢ်မၤနီဉ်မၤဃါ						
တၢ်နီၤလီၤအလီၢ်				မၤစၢၤနီဂံၢ်		
တၢ်နီၤလီၤမုၢ်နံၤ				လီတဲစိ		
နီဉ်ဂံၢ်	မံၤ	နံဉ်အိဉ်ဖျဲဉ်	ပှၤနီဉ်ဂံၢ်လၢဟံဉ်ဒူဉ်အပူၤ	ဒီးနၢ်တၢ်မၤစၢၤလၢပှၤဂၤကွံာ်	တၢ်ကီခဲခိဉ်သ့ဉ်	တၢ်မၤစၢၤအကလုာ်ကလုာ်	ပှၤတူၢ်လိာ်တၢ်မၤစၢၤစုမုၢ်ကျၢၢ်
၁	နီၢ်လီၤအဲဉ်					
၂	နီၢ်ဖိဂူၤ					
၃	စီၤသးစံး					
၄	စီၤဟဲစိ					
၅	စီၤဖါဆံးဆၢ					
၆	စီၤလှဖိ					
၇	နီၢ်သးဖိလဲ					

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တၢ်ဟ့ဉ်နီၤလီၤတၢ်မၤစၢၤအတၢ်မၤနီဉ်မၤဃါ						
တၢ်နီၤလီၤအလီၢ်				မၤစၢၤနီဂံၢ်		
တၢ်နီၤလီၤမုၢ်နံၤ				လီတဲစိ		
နီဉ်ဂံၢ်	မံၤ	နံဉ်အိဉ်ဖျဲဉ်	ပှၤနီဉ်ဂံၢ်လၢဟံဉ်ဒူဉ်အပူၤ	ဒီးနၢ်တၢ်မၤစၢၤလၢပှၤဂၤကွံာ်	တၢ်ကီခဲခိဉ်သ့ဉ်	တၢ်မၤစၢၤအကလုာ်ကလုာ်	ပှၤတူၢ်လိာ်တၢ်မၤစၢၤစုမုၢ်ကျၢၢ်
၁	နီၢ်လီၤအဲဉ်					
၂	နီၢ်ဖိဂူၤ					
၃	စီၤသးစံး					
၄	စီၤဟဲစိ					
၅	စီၤဖါဆံးဆၢ					
၆	စီၤလှဖိ					
၇	နီၢ်သးဖိလဲ					