

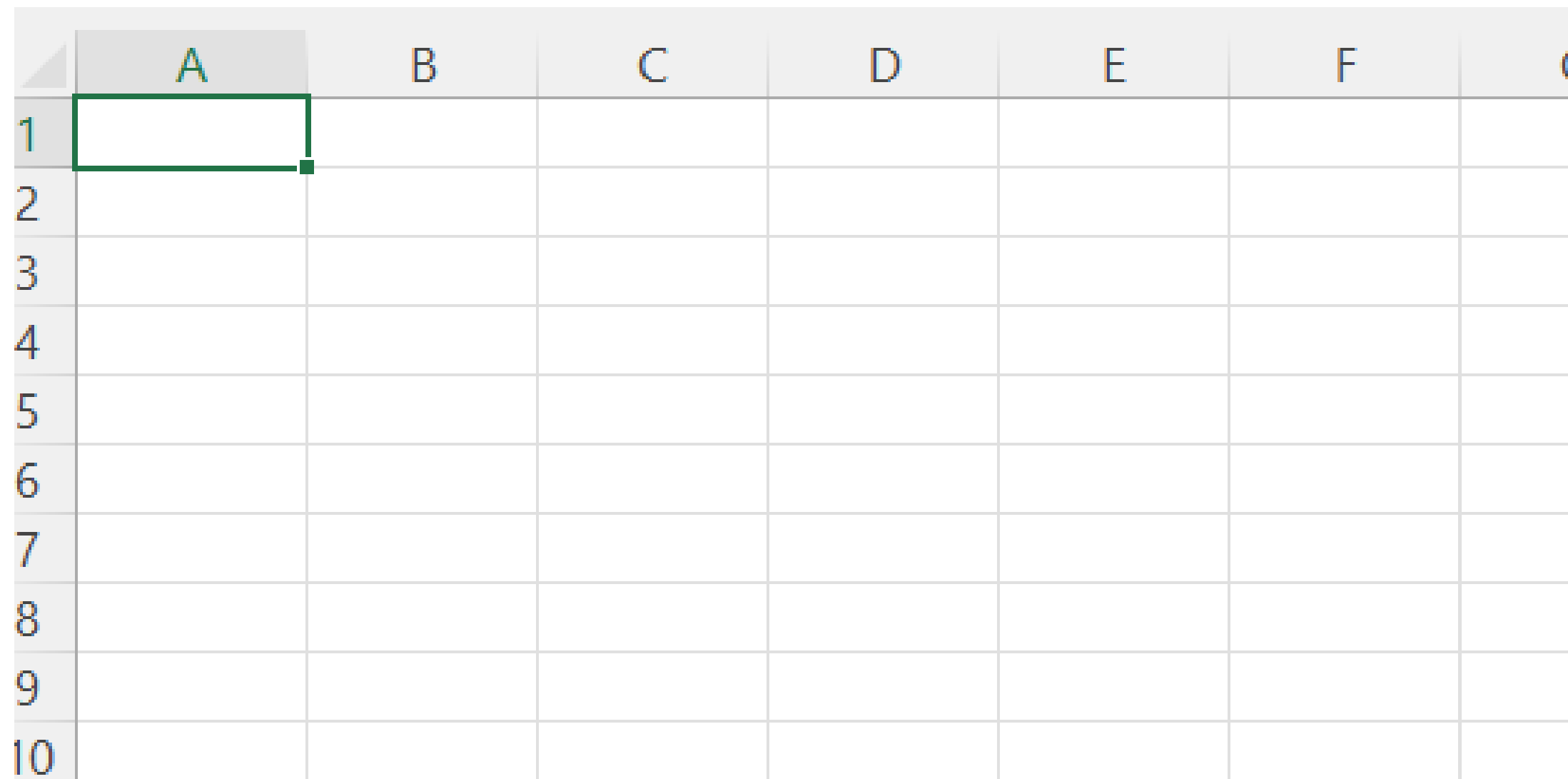


# **1 Explain MS Excel in brief**

Microsoft Excel is a spreadsheet or a computer application that allows the storage of data in the form of a table. Excel was developed by Microsoft and can be used on various operating systems such as Windows, macOS, IOS and Android.

2

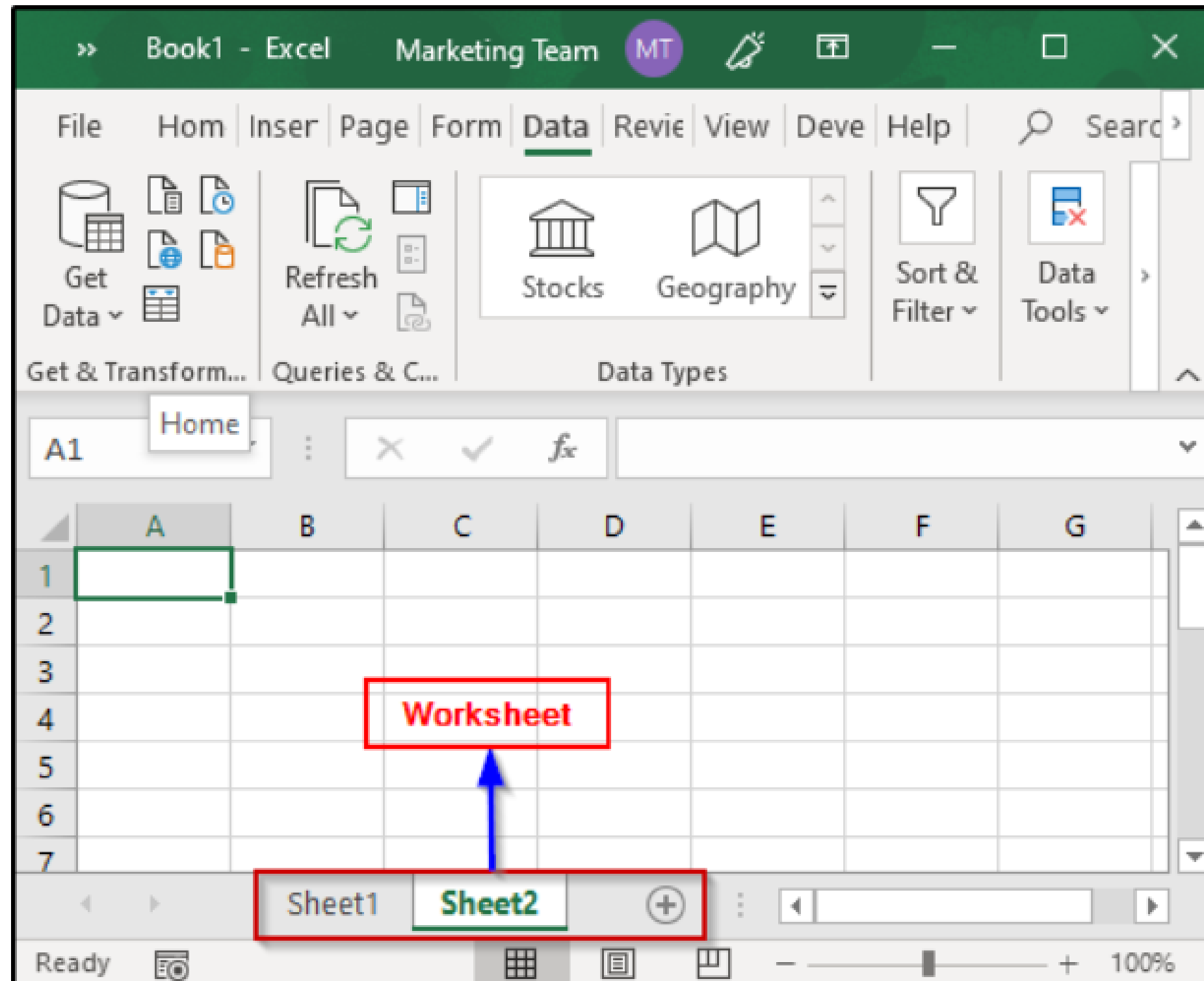
# What do you mean by cells in an Excel sheet?



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

3

# Explain what is a spreadsheet?



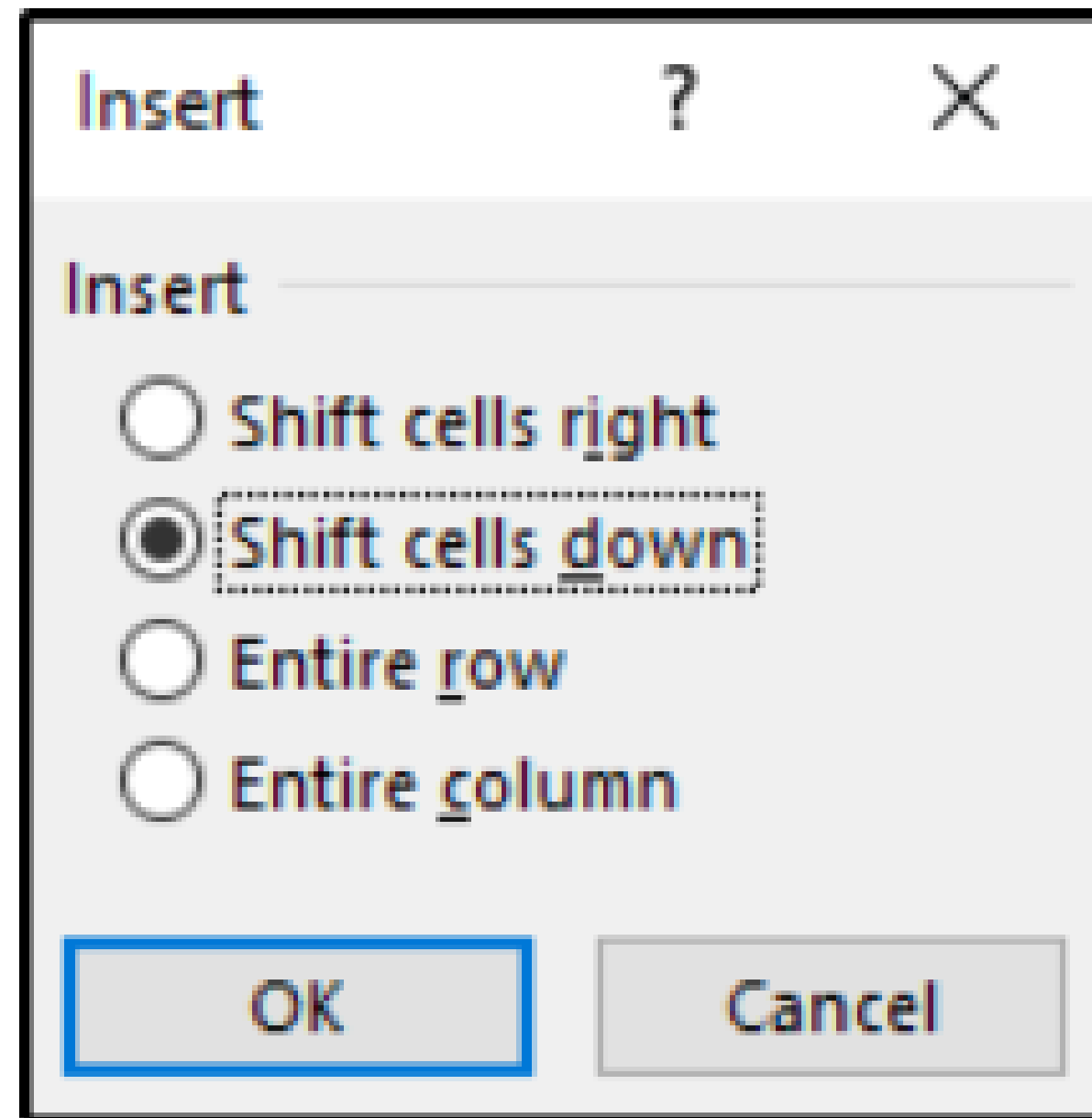
# 4

## What do you mean by cell address?

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

5

# Can you add cells?



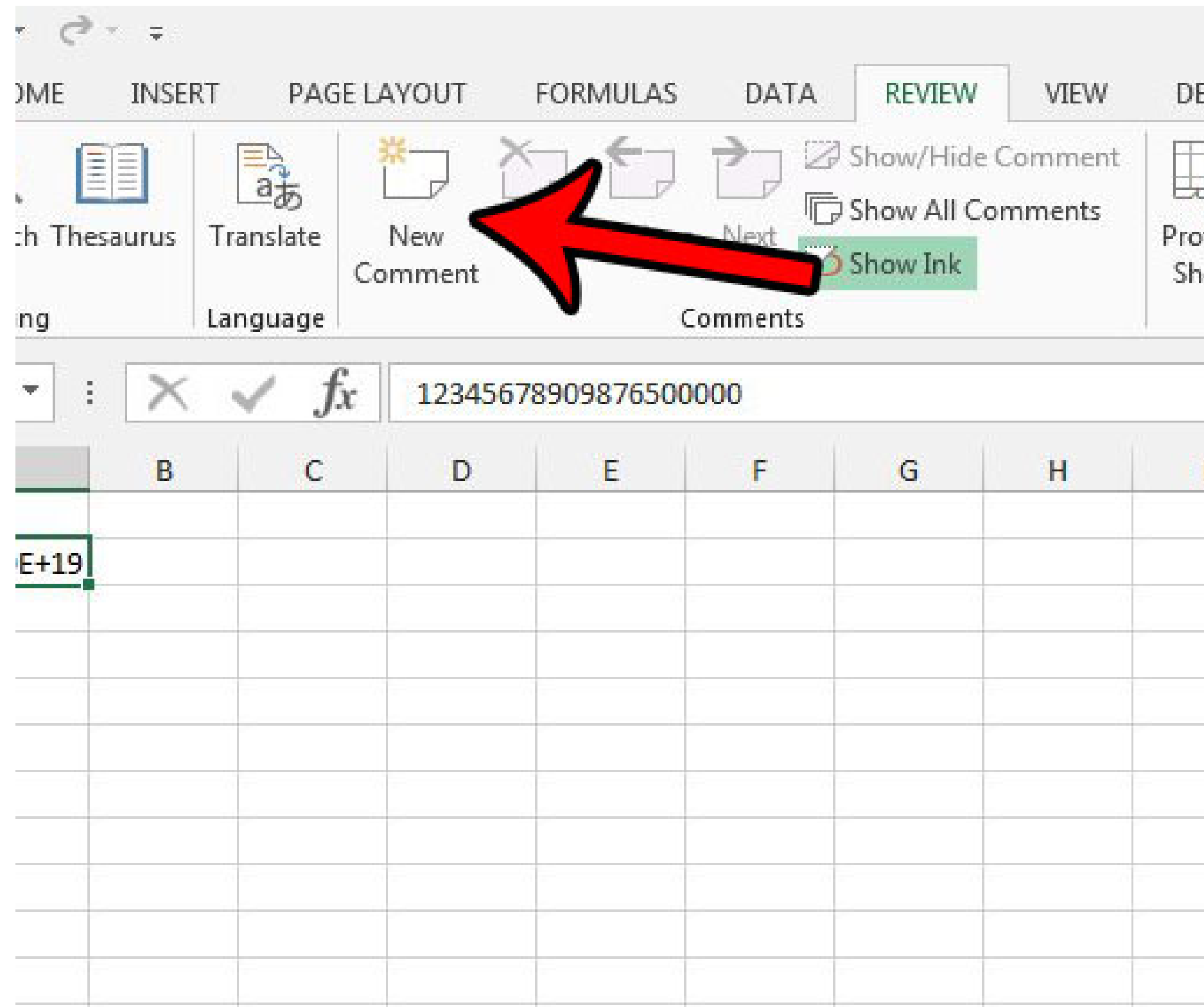
6

# Can you format MS Excel cells? If yes, then how?

Name	Description
Number	Allows formatting cells to be of any type such as currency, accounting, date, percentage, etc
Alignment	Allows text control, alignment and setting its direction
Font	Enables various fonts, styles, sizes, colors, etc
Border	Allows cell borders to be changed, removed, colored, etc
Fill	Enables you to choose different colors and styles to fill up the cell
Protection	Allows you to lock or hide cells

7

# Can you add comments to a cell?





## 8

# Can you add new rows and columns to an Excel sheet?

1. The **HOME** tab is selected on the ribbon.

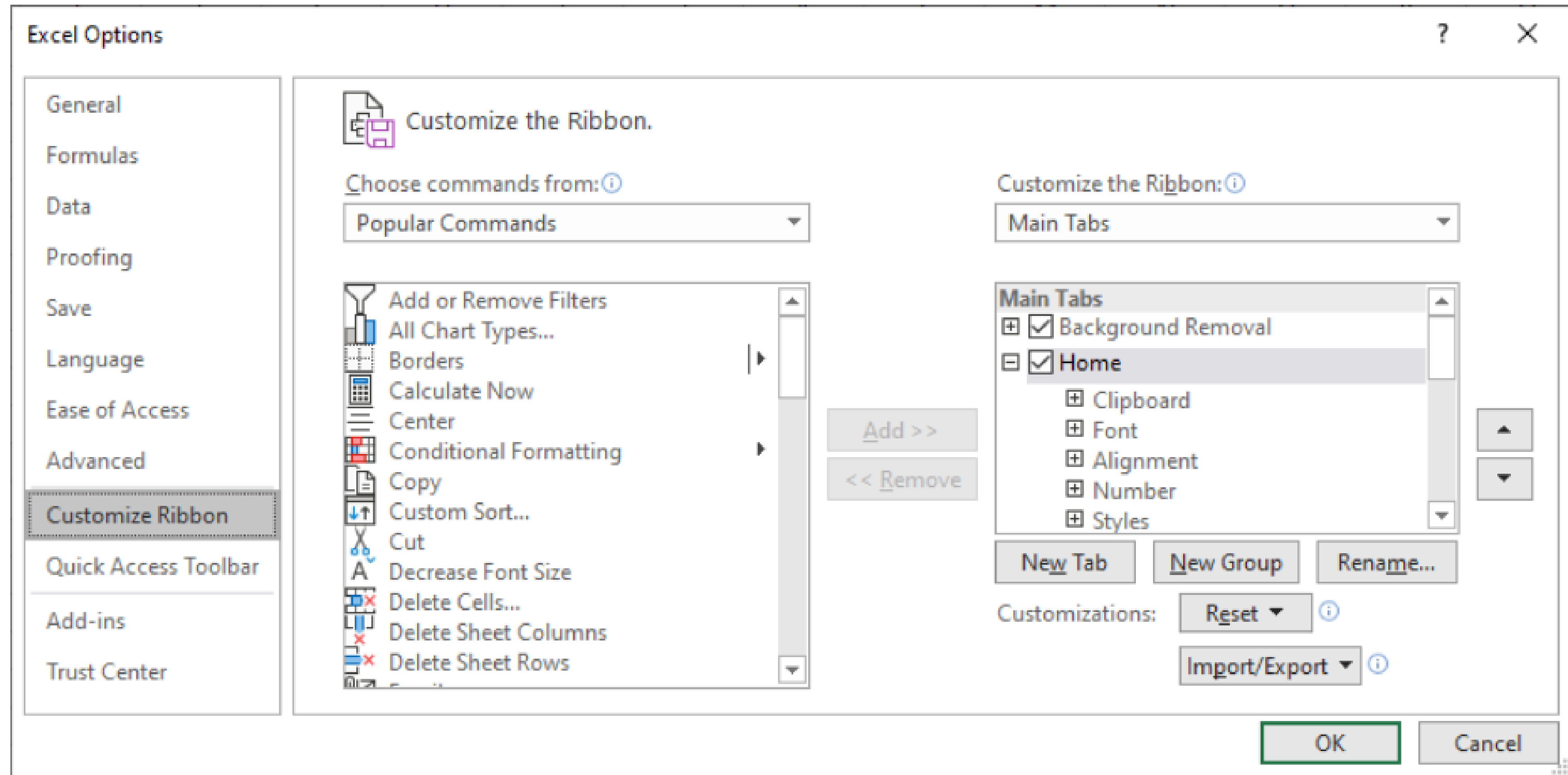
2. The **Insert** dropdown menu is open, showing options: **Insert Cells...**, **Insert Sheet Rows**, **Insert Sheet Columns**, and **Insert Sheet**.

3. Select either **Insert Sheet Rows** or **Insert Sheet Columns**.

	A	B	C	D	E	F	G	H	I	J
1	Region	City	Chain	Product	Cases Sold	Total Sales				
2	North GA	Atlanta	Fruit R Us	Oranges	6168	61680				
3	North GA	Atlanta	Fruit R Us	Apples	6079	85106				
4	North GA	Atlanta	Fruit R Us	Kiwi	6058	66638				
5	North GA	Atlanta	Fruit R Us	Bananas	6868	75548				

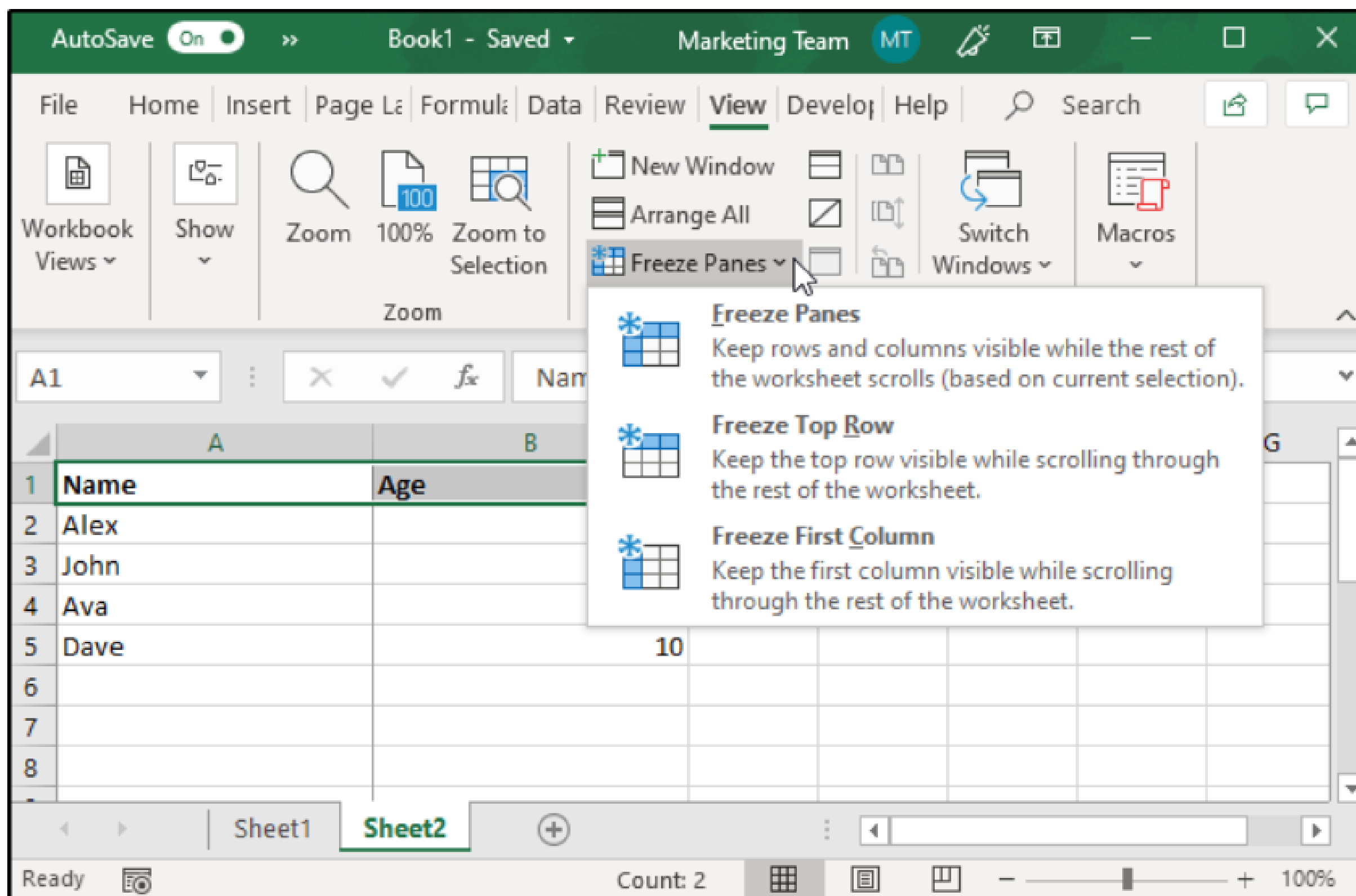
# 9

# What is Ribbon and where does it appear?



# 10

# How do you freeze panes in Excel?





12

# Can you protect workbooks in Excel?

## Protect Workbook in Excel

The screenshot shows the Excel ribbon with the **Review** tab selected. The **Permissions** group contains the **Protect Workbook** button, which is highlighted with a red box. A red arrow points from the **Protect Workbook** button in the ribbon to the **Protect Workbook** button in the **Protect Structure and Windows** dialog box. The **Encrypt with Password** button is also highlighted with a red box. Below the ribbon, the **Protect Structure and Windows** dialog box is open, showing the **Protect workbook for** section with **Structure** checked and **Windows** unchecked. The **Password (optional):** field is highlighted with a red box. To the right, the **Confirm Password** dialog box is open, showing the **Reenter password to proceed.** field, which is also highlighted with a red box. The **Caution** message is visible: "Caution: If you lose or forget the password, it cannot be recovered. It is advisable to keep a list of passwords and their corresponding workbook and sheet names in a safe place. (Remember that passwords are case-sensitive.)"

File Home Insert Page Layout Formulas Data Review View Developer Add-Ins Load Te

ABC Spelling

Permissions

A password is required to open this workbook.

The structure of the workbook has been protected. Changes, such as moving, deleting, or inserting sheets, are not allowed.

Previous Next

Show/Hide Comment Show All Comments Show Ink

Protect Sheet Protect Workbook Share Workbook

Comments

F G H I J K

1 2 3 4 5 6 7 8 9 10

Protect Structure and Windows ? X

Protect workbook for

☒ Structure

☐ Windows

Password (optional):

.....

OK Cancel

Confirm Password ? X

Reenter password to proceed.

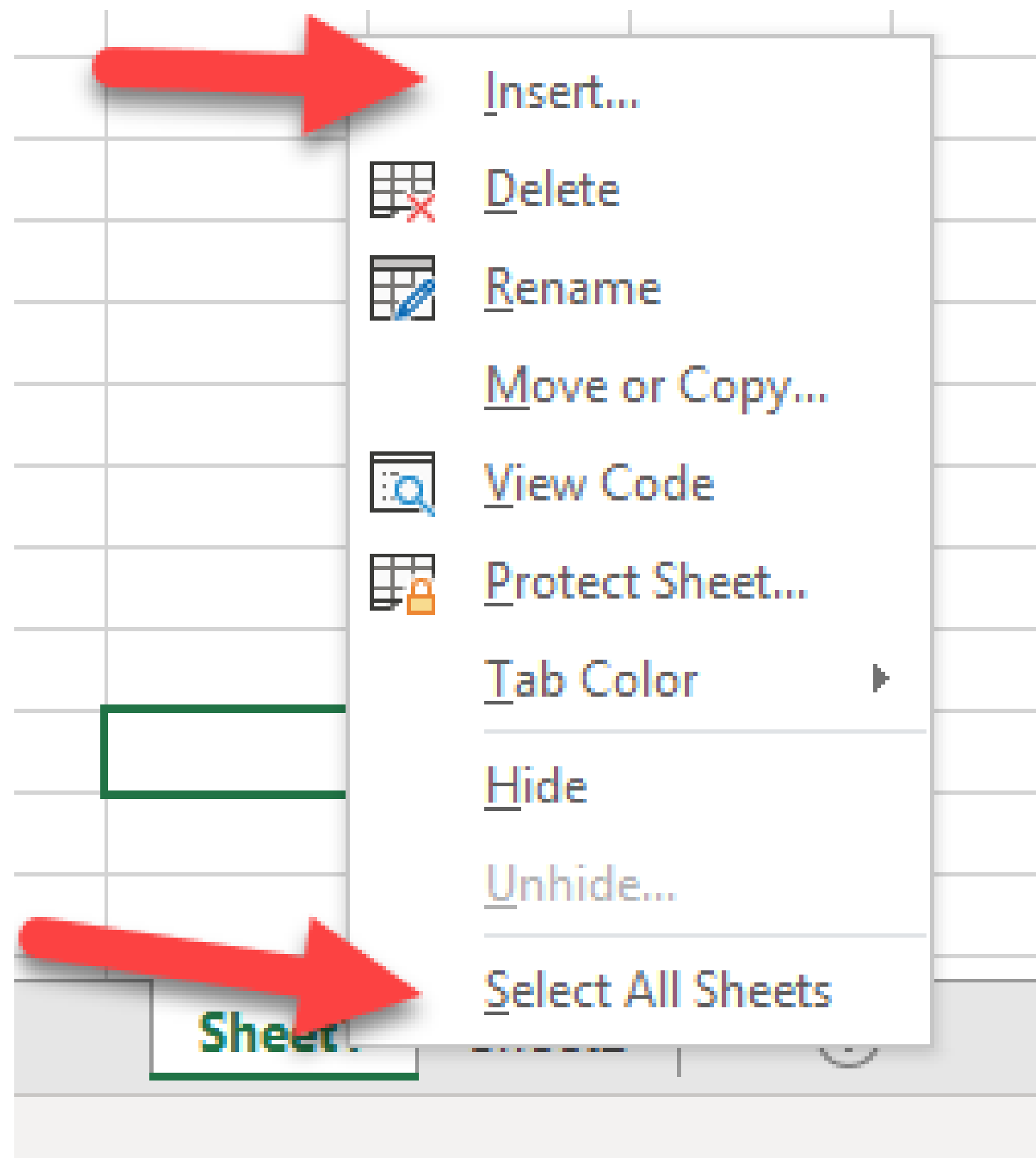
.....

Caution: If you lose or forget the password, it cannot be recovered. It is advisable to keep a list of passwords and their corresponding workbook and sheet names in a safe place. (Remember that passwords are case-sensitive.)

OK Cancel

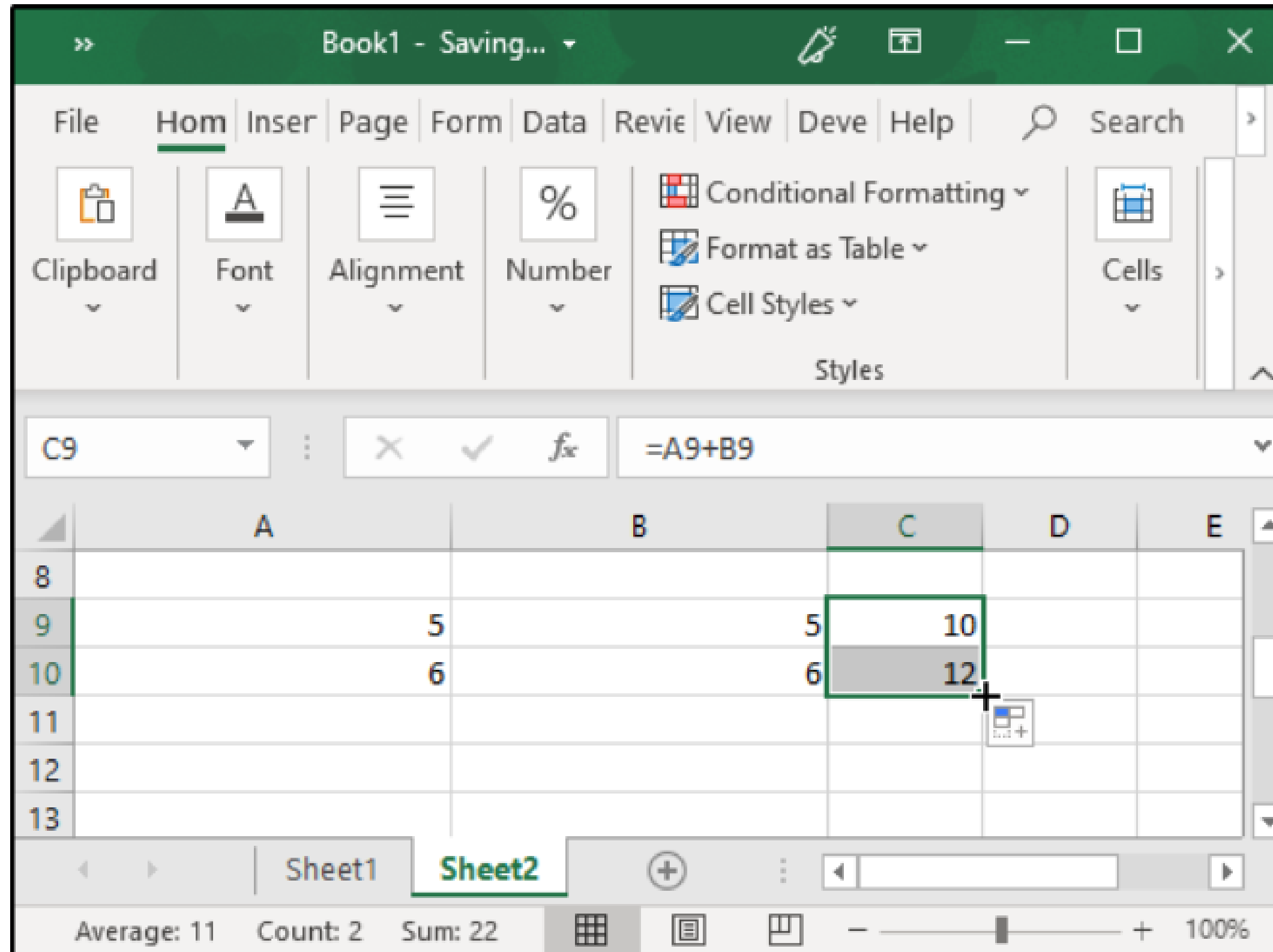
13

How do you apply a single format to all the sheets present in a workbook?



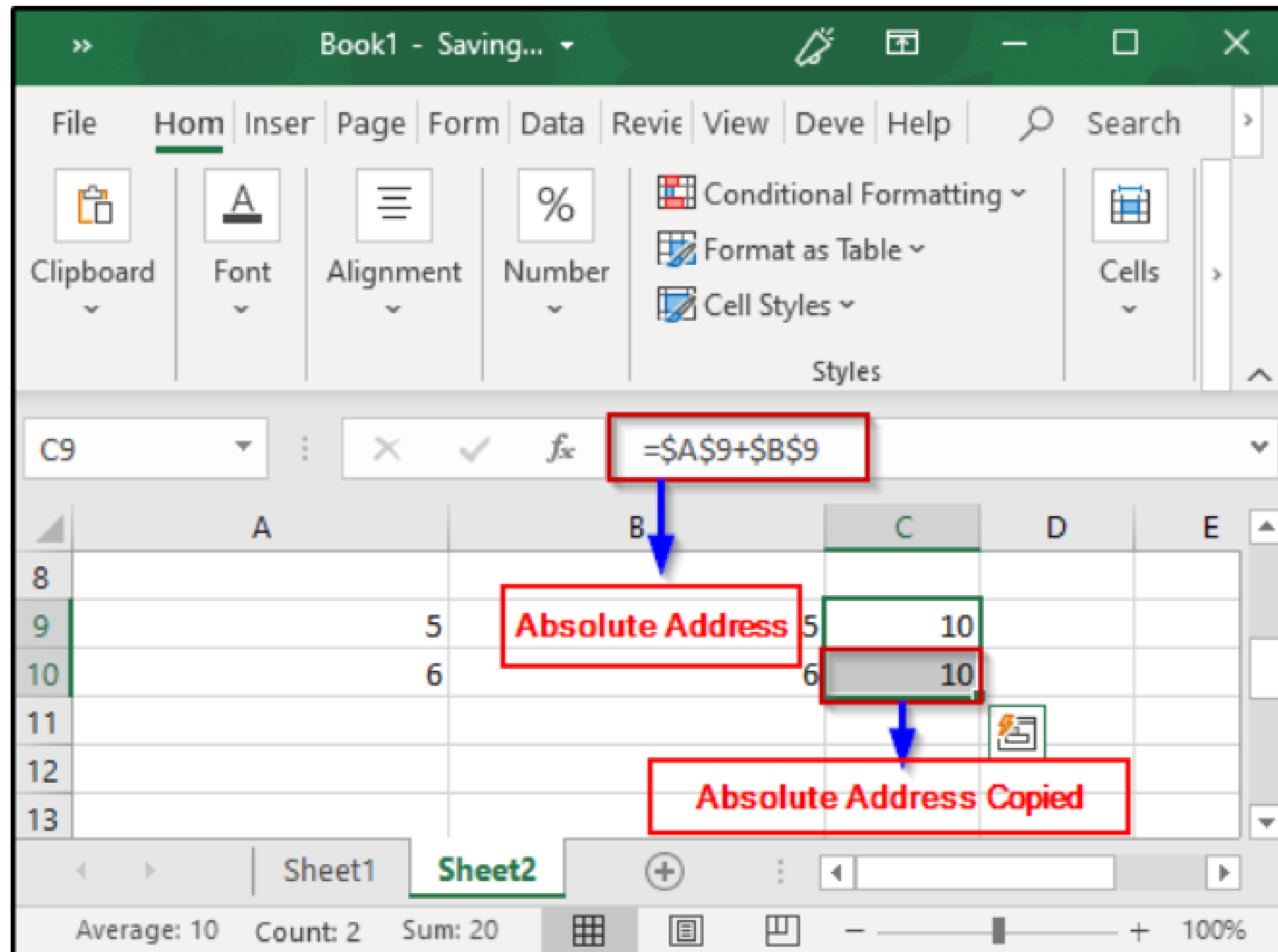
# 14

## What do you understand by Relative Cell Addresses?



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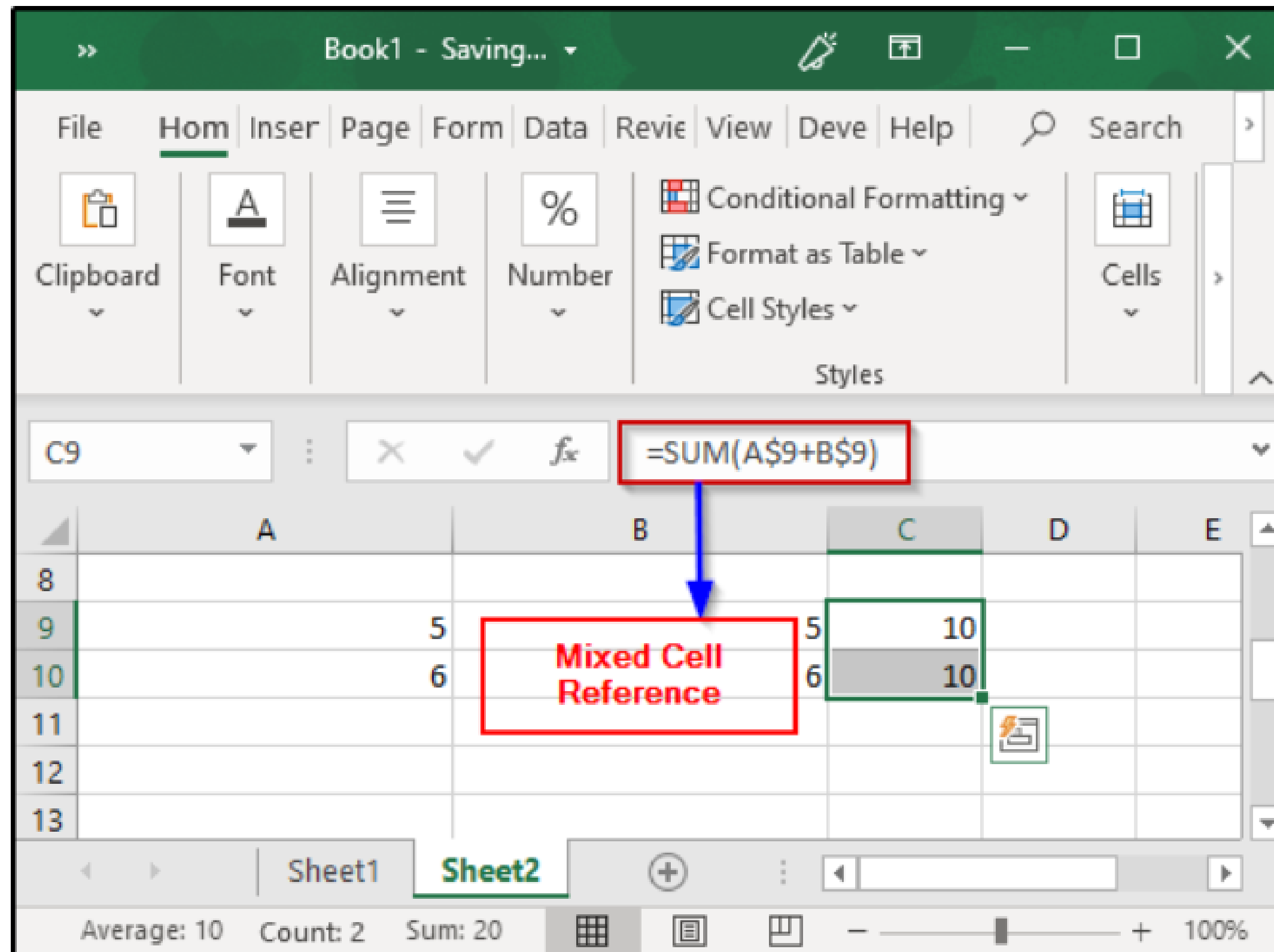
In case you don't want to modify the cell addresses when they are copied, what should you do?





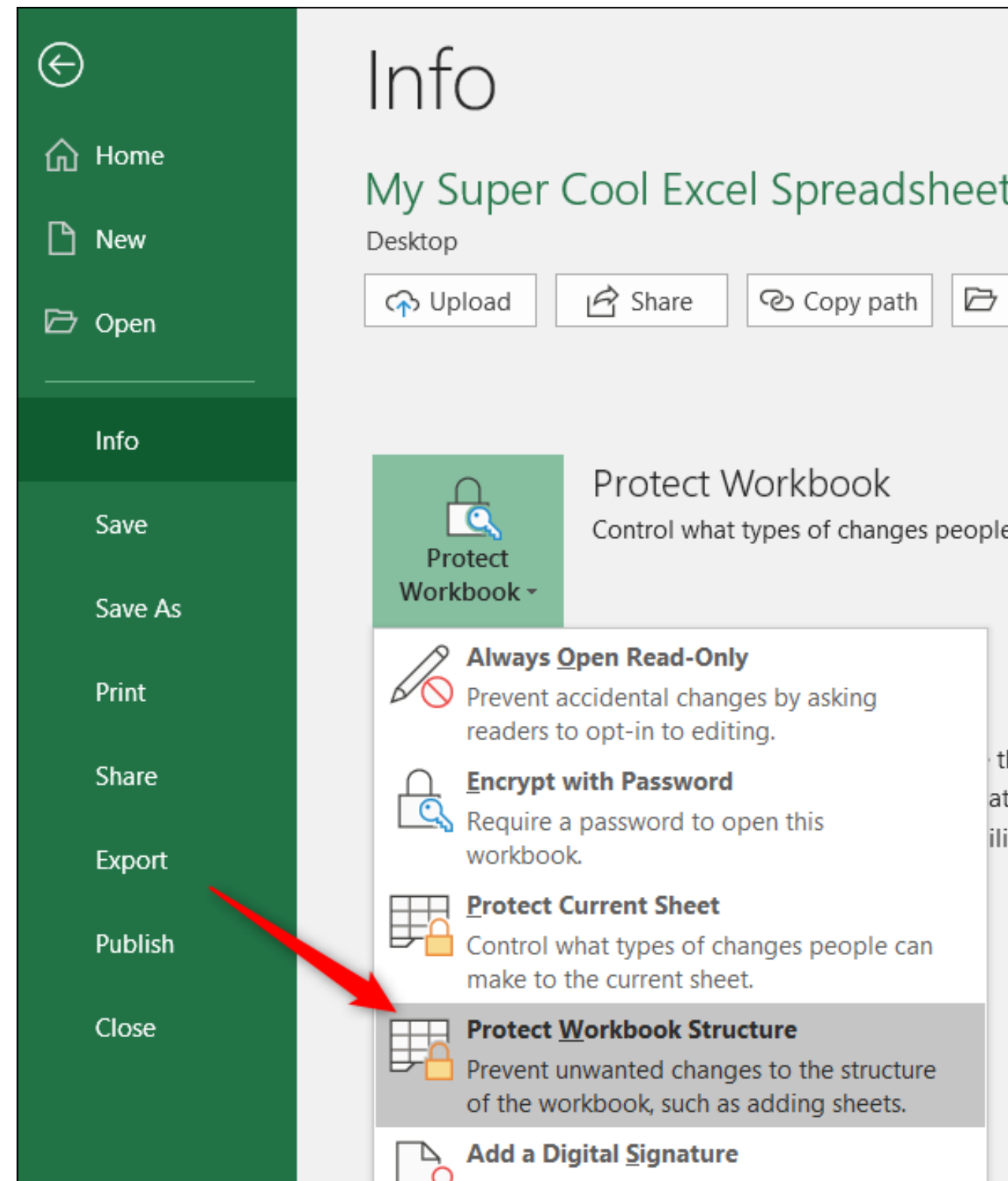
16

What will you do if you want to change either the column letter or the row number but not both?



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Can you protect cells of a sheet from being copied?



# How do you create Named Ranges?

## Named Range in Excel

The screenshot shows the Excel ribbon with the **Formulas** tab selected. The **Name Manager** button is highlighted, and the **New Name** dialog box is open. The dialog box shows the following details:

- Name:** Data
- Scope:** Workbook
- Refers to:** =Sheet2!\$A\$1:\$A\$11

The background shows a worksheet with a table of data in column A:

	A
1	Data
2	10
3	20
4	30
5	40
6	50
7	60

**Name Manager (Ctrl+F3)**  
Create, edit, delete, and find all the names used in the workbook.

Names can be used in formulas as substitutes for cell references.

For example: =SUM(MySales)  
instead of =SUM(C20:C30).

**CTRL + F3**

# What are macros?

## Examples of Excel Macros

The image shows the Excel Developer ribbon and the Record Macro dialog box. The Developer ribbon is highlighted in yellow. The Record Macro dialog box is open, showing the macro name 'Macro11' and the shortcut key 'Ctrl+V'. An arrow points from the 'Data' button in the ribbon to the 'Data' button in the dialog box.

**Developer Ribbon:**

- Code:** Macros, Record Macro, Use Relative References, Macro Security
- Add-ins:** Add-ins, Excel Add-ins, COM Add-ins
- Controls:** Insert, Design Mode, Properties, View Code, Run Dialog, Source

**Record Macro Dialog Box:**

Record Macro

Macro name: Macro11

Shortcut key: Ctrl+ V

**Data Table:**

	A	B	C	D
1	Name	Sales		
2	TDS	25000		
3	JCV LLC	362100		
4	TUV	45000		

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# How do you create dropdown lists in Excel?

## Drop Down List in Excel

The screenshot shows the Excel interface with the **Data** tab selected on the ribbon. The **Data Validation** button in the ribbon is highlighted with a red arrow. The **Data Validation** dialog box is open, showing the **Settings** tab. In the **Allow:** dropdown, the **List** option is selected and highlighted with a red box. The **Ignore blank** and **In-cell dropdown** checkboxes are checked. The **OK** button is highlighted with a red arrow. A red box on the right contains the following text:

**Data Validation**

Prevent invalid data from being entered into a cell.

For example, you could reject invalid dates or numbers greater than 1000.

You can also force input to be chosen from a dropdown list of values you specify.

? Press F1 for more help.



## 22

# How do you create Pivot Tables?

	A	B	C	D	E	F	G	H	I
1	Order ID	Date	Name	Item	City	Quantity	Amount		
2	1	01-01-2019	Jon	Banana	Washington	23	\$ 250.00		
3	2	02-01-2019	Ivan	Apple	Texas	24	\$ 300.00		
4	3	03-01-2019	Percy	Orange	Chicago	25	\$ 400.00		
5	4	04-01-2019	Torres	Pnieapple	New York	26	\$ 500.00		
6	5	05-01-2019	Leo	Banana	Washington	23	\$ 250.00		
7	6	06-01-2019	Sergio	Apple	Texas	24	\$ 300.00		
8	7	07-01-2019	Chris	Banana	Chicago	25	\$ 400.00		
9	8	08-01-2019	Rafa	Apple	New York	26	\$ 500.00		
10	9	09-01-2019	Mary	Orange	Washington	23	\$ 250.00		
11	10	10-01-2019	Giff	Pnieapple	Texas	24	\$ 300.00		
12	11	11-01-2019	Brad	Banana	Chicago	25	\$ 400.00		
13	12	12-01-2019	Roger	Apple	New York	26	\$ 500.00		
14	13	13-01-2019	Iker	Banana	Washington	23	\$ 250.00		
15	14	14-01-2019	Chris	Apple	Texas	24	\$ 300.00		
16	15	15-01-2019	Rafa	Orange	Chicago	25	\$ 400.00		
17	16	16-01-2019	Mary	Pnieapple	New York	26	\$ 500.00		
18	17	17-01-2019	Giff	Banana	Washington	23	\$ 250.00		
19	18	18-01-2019	Brad	Apple	Texas	24	\$ 300.00		
20	19	19-01-2019	Roger	Orange	Chicago	25	\$ 400.00		
21	20	20-01-2019	Iker	Banana	New York	26	\$ 500.00		
22									
23									

Create PivotTable

Choose the data that you want to analyze

☒ Select a table or range

Table/Range: 'Creating Data'!\$A\$1:\$G\$21

☐ Use an external data source

Choose Connection...

Connection name:

☐ Use this workbook's Data Model

Choose where you want the PivotTable report to be placed

☒ New Worksheet

☐ Existing Worksheet

Location:

Choose whether you want to analyze multiple tables

☐ Add this data to the Data Model

OK Cancel

23

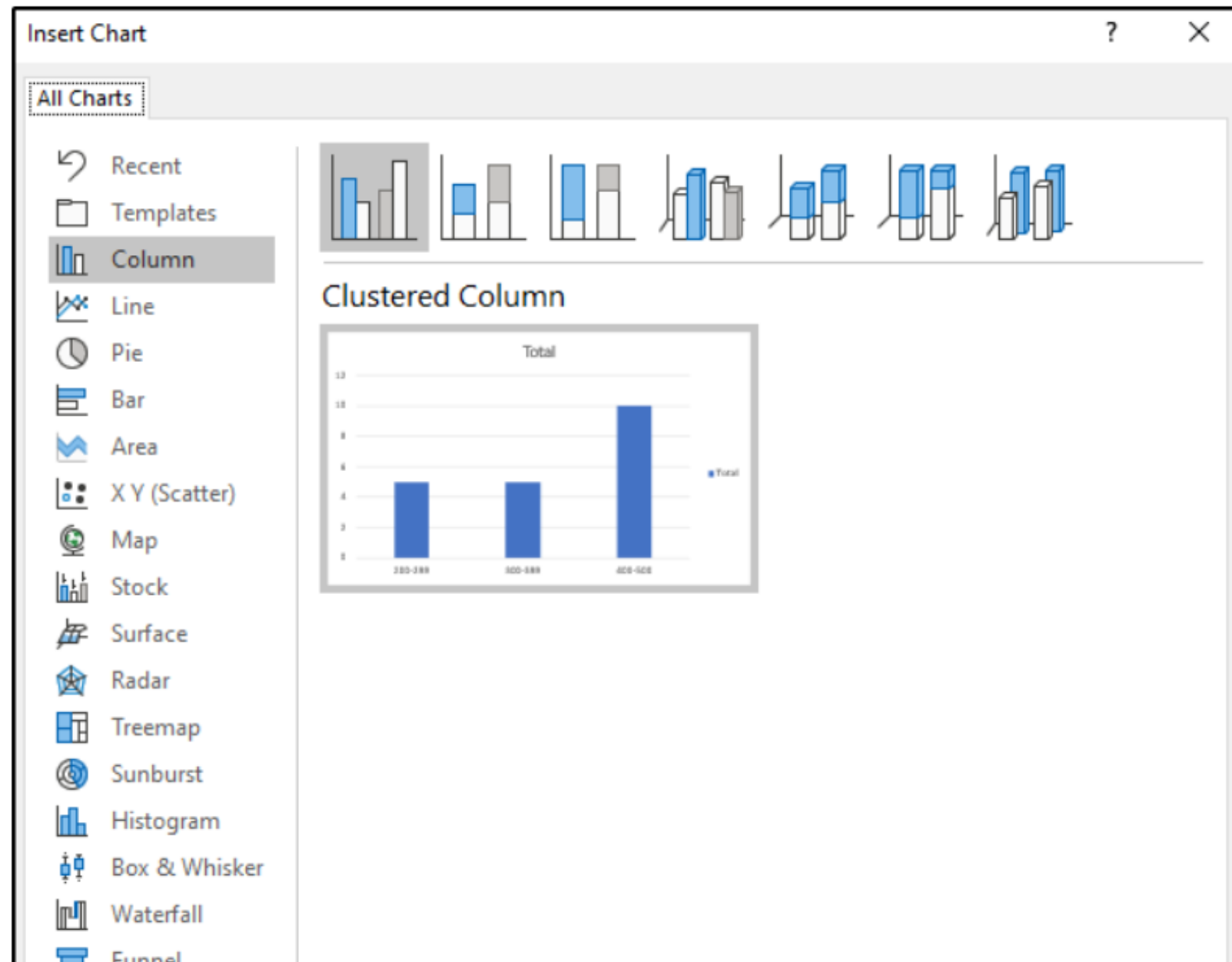
# Can you create Pivot tables using multiple tables?

Page1	(All)		
Count of Value	Column Labels		
Row Labels	Amount	City	Quantity
Brad	2	2	2
Chris	2	2	2
Giff	2	2	2
Iker	2	2	2
Ivan	1	1	1
Jon	1	1	1
Leo	1	1	1
Mary	2	2	2
Percy	1	1	1
Rafa	2	2	2
Roger	2	2	2
Sergio	1	1	1
Torres	1	1	1



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# What are Pivot charts in MS Excel?



Row Labels	Count of Amount
200-299	5
300-399	5
400-500	10
<b>Grand Total</b>	<b>20</b>

**What happens when you check the Defer Layout Update option present in the PivotTable Fields window?**

**Can you create a pivot table using tables from different worksheets?**

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Is it possible to see the details of the results displayed in a pivot table?

	A	B	C	D
1	Row ▼	Column ▼	Value ▼	Page1 ▼
2	Brad	City	Texas	sheet2
3	Brad	City	Chicago	sheet2

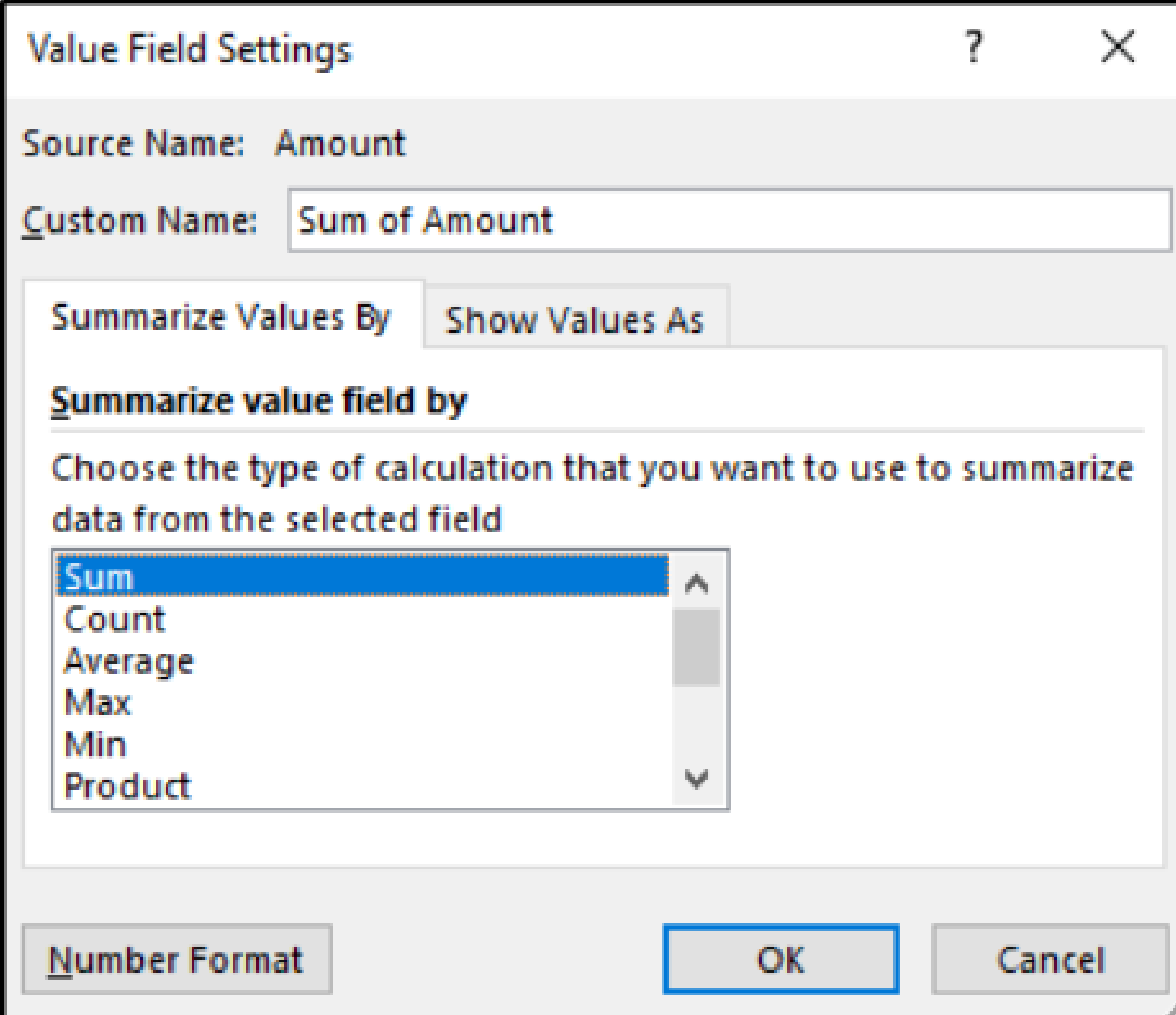
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# How are PivotTables used to filter data?

City	Chicago		
Sum of Amount	Column Labels		
Row Labels	Banana	Orange	Grand Total
Brad	400		400
Chris	400		400
Percy		400	400
Rafa		400	400
Roger		400	400
Grand Total	800	1200	2000

29

How do you change the value field to show some other result other than the Sum?



The image shows a 'Value Field Settings' dialog box. At the top, the title bar says 'Value Field Settings' with a question mark and a close button. Below the title bar, there are two fields: 'Source Name: Amount' and 'Custom Name: Sum of Amount'. There are two tabs: 'Summarize Values By' and 'Show Values As'. The 'Summarize Values By' tab is selected. Below the tabs, there is a section titled 'Summarize value field by' with a subtitle 'Choose the type of calculation that you want to use to summarize data from the selected field'. A list box contains the following options: Sum (highlighted), Count, Average, Max, Min, and Product. At the bottom of the dialog box, there are three buttons: 'Number Format', 'OK', and 'Cancel'.

Value Field Settings

Source Name: Amount

Custom Name: Sum of Amount

Summarize Values By Show Values As

Summarize value field by

Choose the type of calculation that you want to use to summarize data from the selected field

Sum  
Count  
Average  
Max  
Min  
Product

Number Format OK Cancel

**30**

## **How to stop automatic sorting in PivotTables?**

Excel automatically sorts the data present in the Pivot Tables

# What do you understand by Excel functions?

## SUM Function in Excel

The screenshot illustrates the process of inserting the SUM function into an Excel worksheet. The ribbon is set to the 'Formulas' tab, and the 'Math & Trig' group is selected. The 'SUM' function is chosen from the dropdown menu. A tooltip provides the syntax and description for the SUM function. The formula bar shows the beginning of the formula entry, and a yellow box highlights the correct syntax for the function arguments.

**Function Library:** AutoSum, Recently Used, Financial, Logical, Text, Date & Time, Lookup & Reference, Math & Trig, More Functions.

**Defined Names:** Define Name, Use in Formula, Create from Selection.

**Formula Bar:** `=SUM(`

**Function Syntax:** `SUM(number1, [number2], ...)`

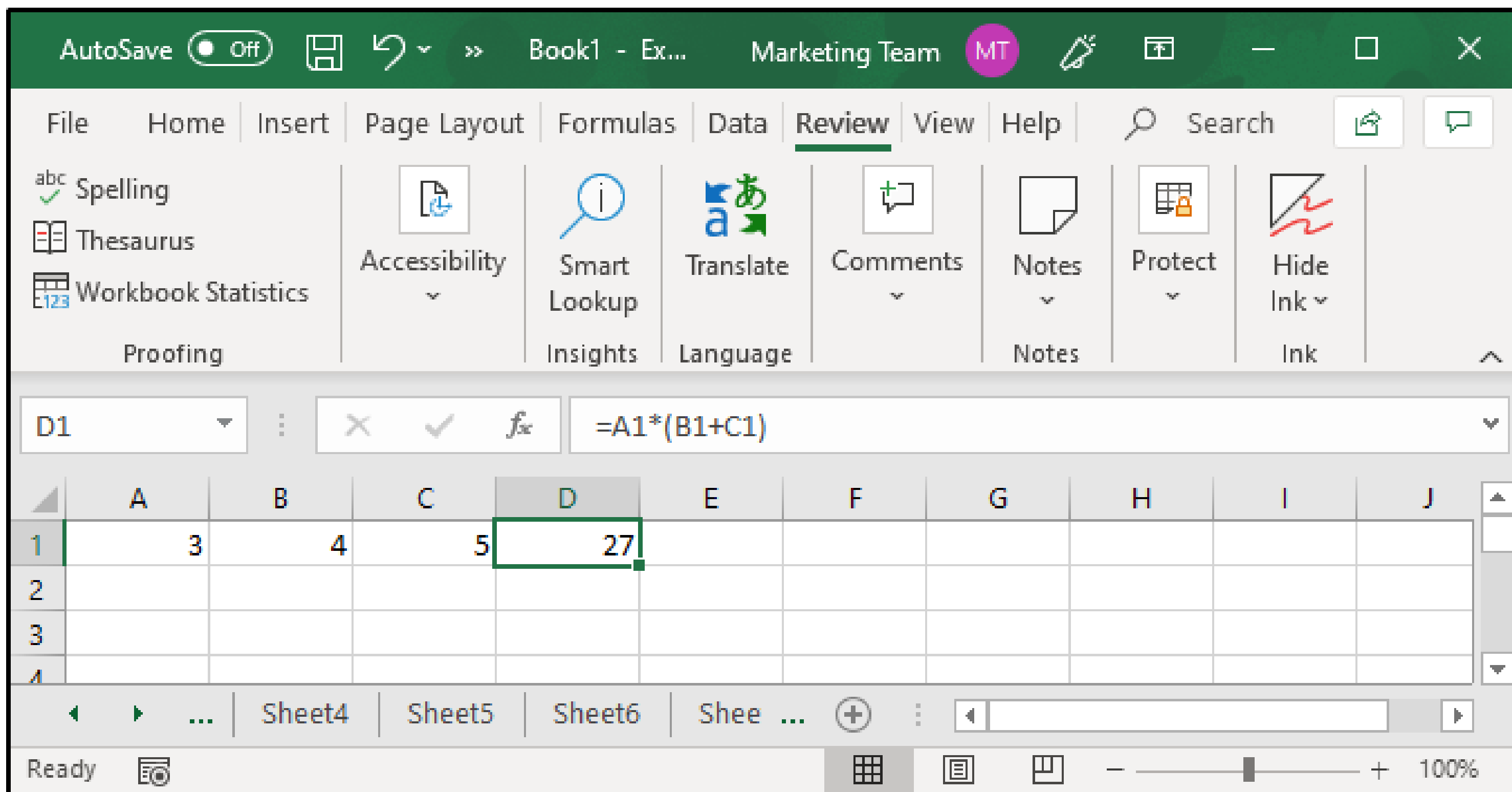
**Function Description:** `SUM(number1, number2,)`  
Adds all the numbers in a range of cells.  
Press F1 for more help.



# What are the various categories of functions available in Excel?

Catagory	Important Formulas
Date & Time	DAY, DATE, MONTH, etc
Financial	ACCINTM, DOLLARDE, ACCINT, etc
Math & Trig	SUM, SUMIF, PRODUCT, SIN, COS, etc
Statistical	AVERAGE, COUNT, COUNTIF, MAX, MIN, etc
Lookup & Reference	COLUMN, HLOOKUP, ROW, VLOOKUP, CHOOSE, etc
Database	DAVERAGE, DCOUNT, DMIN, DMAX, etc
Text	BAHTTEXT, DOLLAR, LOWER, UPPER, etc
Logical	AND, OR, NOT, IF, TRUE, FALSE, etc

# What is the operator precedence of formulas in Excel?



# Explain SUM and SUMIF functions.

The screenshot shows an Excel spreadsheet titled "practice" with a "Marketing Team" tab. The "Home" ribbon is active, showing various toolbars like Clipboard, Font, Alignment, Number, Conditional Formatting, Format as Table, Cell Styles, Cells, Editing, and Id. The formula bar shows the formula `=SUM(B1:B4)` being entered into cell B6. The spreadsheet data is as follows:

	A	B	C	D	E	F	G	H	I
2	Tomatoes	\$ 2.50							
3	Ginger	\$ 7.30							
4	Garlic	\$ 6.20							
5									
6	Total	\$ 20.30							
7									

The status bar at the bottom shows "Ready" and a zoom level of 100%.

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# What are the different types of COUNT functions available in Excel?

The screenshot shows the Microsoft Excel interface. The title bar indicates the file is named 'pract... - Las...' and the user is 'Marketing Team MT'. The ribbon is set to 'Home', and the 'Formulas' tab is active. The formula bar shows the formula `=COUNT(A18:G20)` entered in cell C23. The worksheet contains a table with the following data:

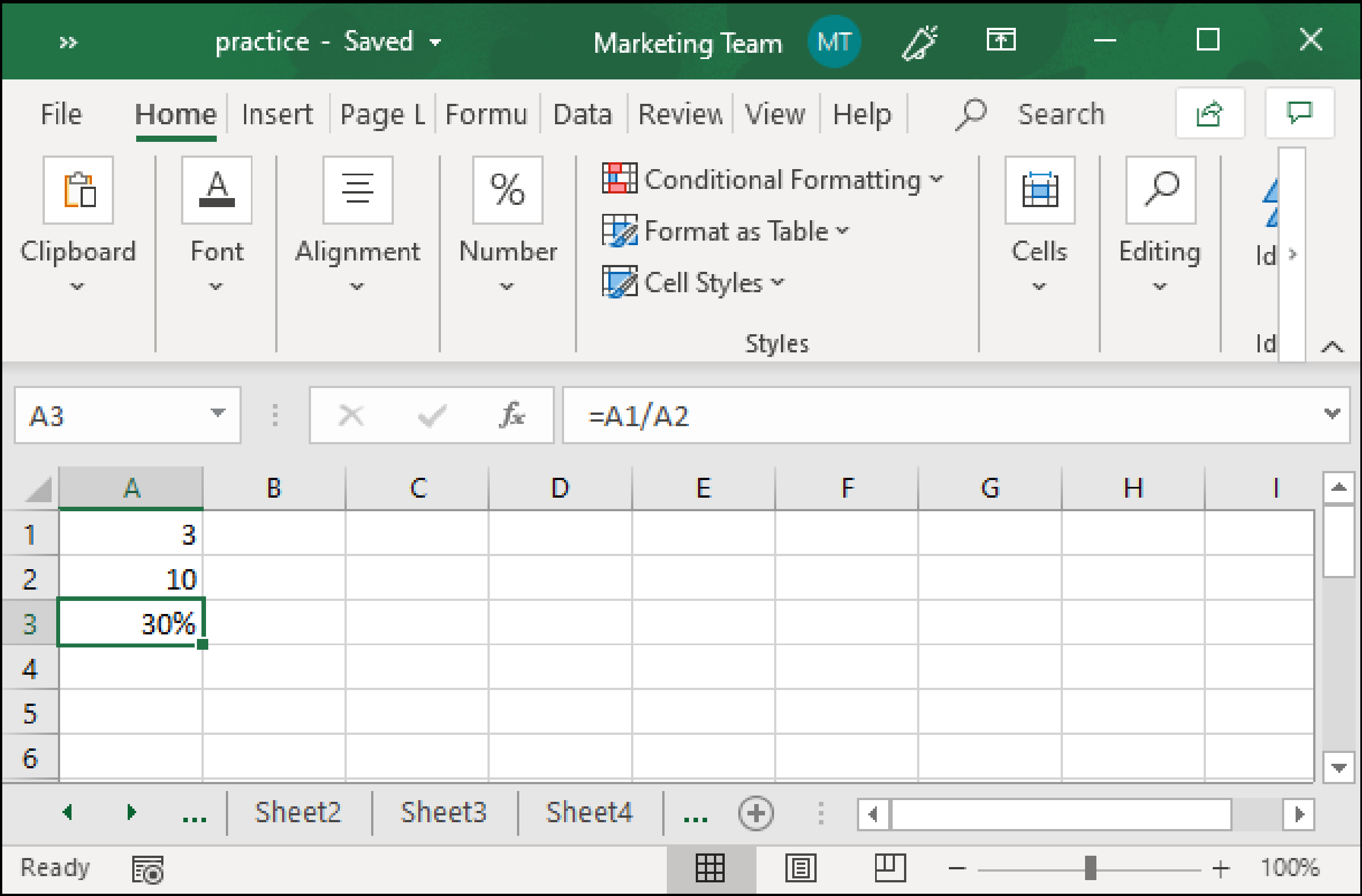
	A	B	C	D	E	F	G
18	Name	Test1	Test2	Test3	Test4	Test5	Average
19	Dave	87	85	78	98	69	83.4
20	Ava	93	83	65	76	87	80.8
21							
22							
23	No. of cells containing numbers		12				
24							
25							

The status bar at the bottom shows 'Ready' and a zoom level of 100%.



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# How do you calculate the percentage in Excel?



37

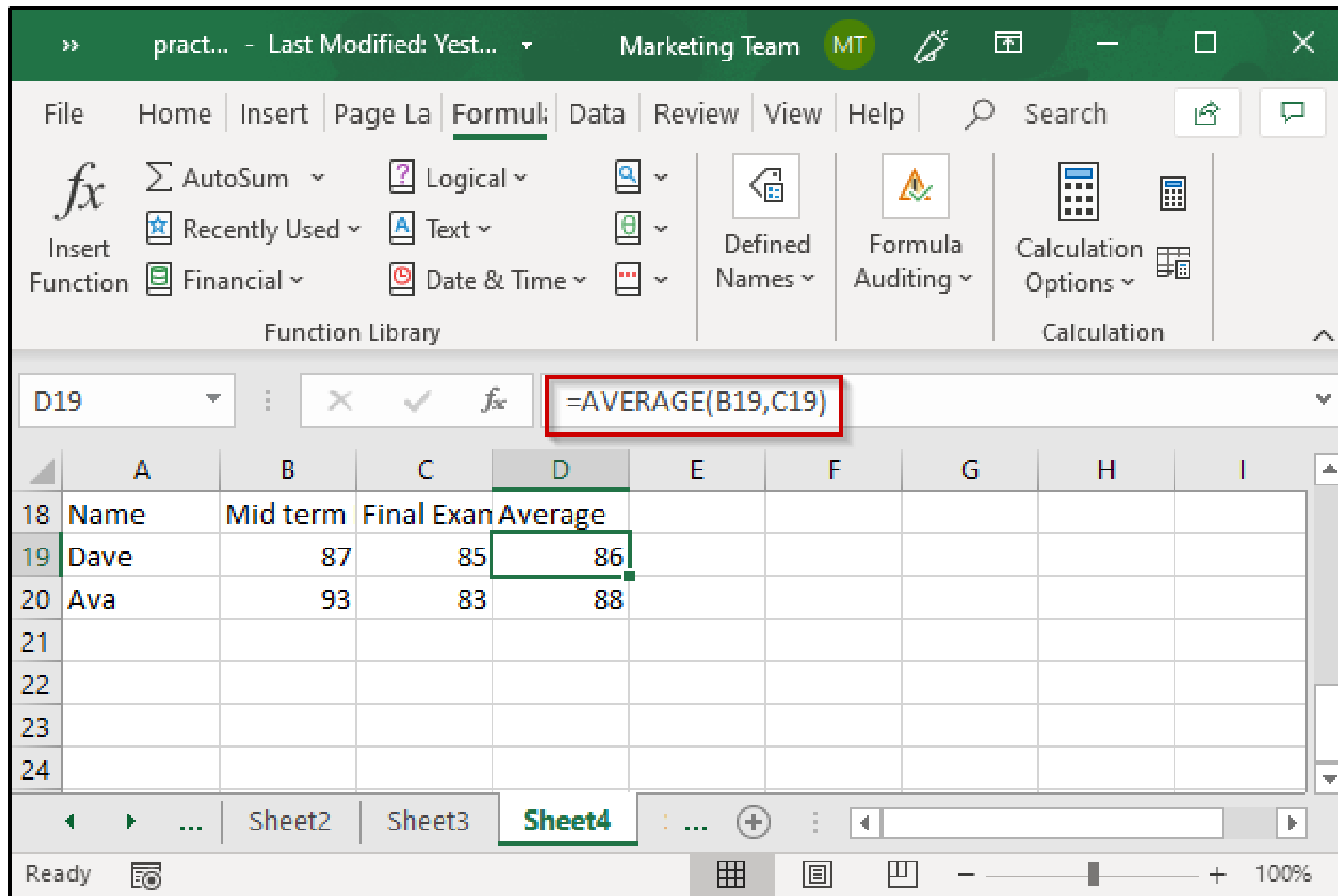
# Explain how to calculate compound interest in Excel?

The screenshot displays the Microsoft Excel interface with the following details:

- File Name:** pract... - Last Modified: Yest...
- Tab Name:** Marketing Team MT
- Formulas Bar:** B6,  $=FV(B2/B4, B3*B4, 0, -B1)$
- Worksheet Data:**

	A	B	C	D	E	F	G
1	Investment	\$ 500.00					
2	Interest rate	10%					
3	Term in years	5					
4	Compounding periods (per year)	12					
5							
6	Future Value	₹ 822.65					
7							

The status bar at the bottom indicates 'Ready' and a zoom level of 100%.



## What is VLOOKUP in Excel?

VLOOKUP is a function present in Excel used to lookup and bring forth data from a given range.



# How does the VLOOKUP function work?

## Syntax:

*VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])*

here,

- **lookup\_value** gives the value to be looked out for
- **table\_index** is the range from where the data is to be taken
- **col\_index\_num** specifies the column from which you want to fetch the value
- **range\_lookup** is a logical value i.e **TRUE** or **FALSE** (**TRUE** will find the closest match; **FALSE** checks for exact match)

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# Explain the exact match with an example.

AutoSave Off VLOOKUP - Excel Marketing Team MT

File Home Insert Page Layout Formulas Data Review View Help Search

fx Insert Function AutoSum Recently Used Financial Logical Text Date & Time Defined Names Formula Auditing Calculation Options

Function Library

G4  $\times$   $\checkmark$   $fx$  =VLOOKUP(104,A1:D8, 3, FALSE)

	A	B	C	D	E	F	G
1	ID	Name	Designation	Salary			
2	101	Jon	Senior Developer	\$ 1,000.00			
3	102	Ivan	DBA	\$ 800.00			
4	103	Percy	Project Manager	\$ 1,300.00			Associate Developer
5	104	Torres	Associate Developer	\$ 450.00			
6	105	Leo	Hadoop Admin	\$ 750.00			
7	106	Sergio	Junior Software Engineer	\$ 400.00			
8	107	Chris	System Engineer	\$ 600.00			
9							

Sheet1

Ready 100%

42

# Explain the approximate match with an example.

AutoSave Off VLOOKUP - Excel Marketing Team MT

File Home Insert Page Layout Formulas Data Review View Help Search

fx Insert Function AutoSum Recently Used Financial Logical Text Date & Time Defined Names Formula Auditing Calculation Options

Function Library

D14

	A	B	C	D	E	F	G
11							
12	Marks	Grade	Class				
13	40	C	Second Class				
14	60	B	First Class	Second Class			
15	85	A	Distiction				
16							
17							
18							
19							

Sheet1

Ready 100%

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**Can you use VLOOKUP for multiple tables?**

Yes, you can use VLOOKUP for multiple tables as well.

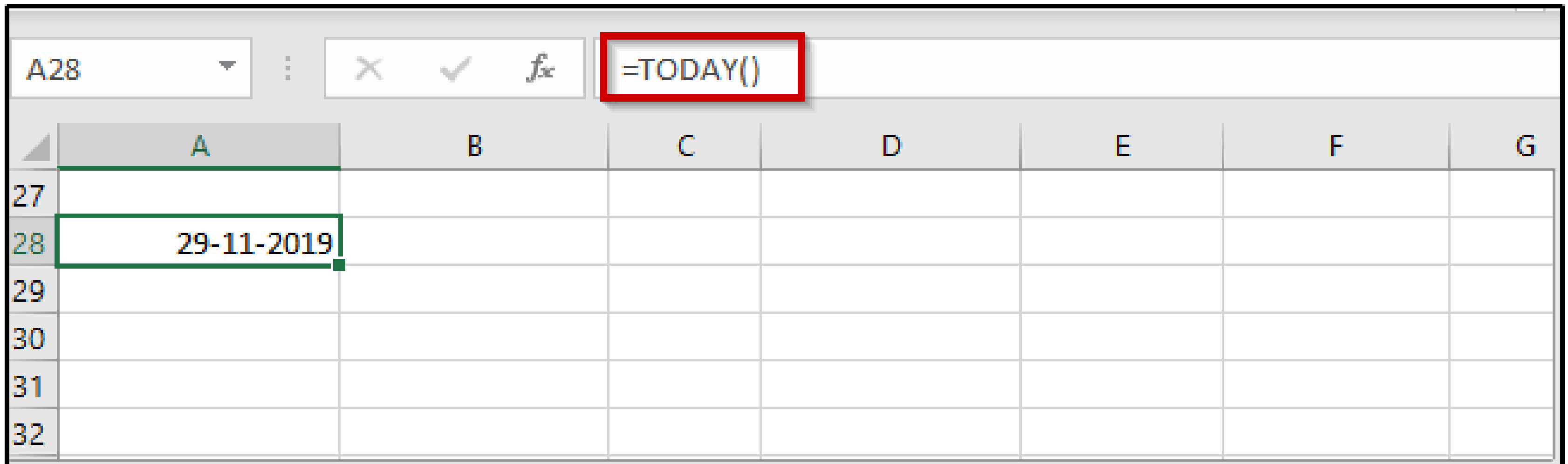
44

# How do you perform a horizontal lookup in Excel?

F16							
12							
13	Name	City	Quantity	Amount			
14	Jon	Washington	23	\$ 250.00			
15	Ivan	Texas	24	\$ 300.00			
16	Percy	Chicago	25	\$ 400.00		Washington	
17	Torres	New York	26	\$ 500.00			
18	Leo	Washington	23	\$ 250.00			
19	Sergio	Texas	24	\$ 300.00			
20	Chris	Chicago	25	\$ 400.00			
21	Rafa	New York	26	\$ 500.00			
22	Mary	Washington	23	\$ 250.00			
23	Giff	Texas	24	\$ 300.00			
24							
25							

45

# How will you fetch the current date in Excel?



# How does the AND function work?

B35							
29							
30	Amount	>200 AND <400					
31	USD	200.00	FALSE				
32	USD	240.00	TRUE				
33	USD	300.00	TRUE				
34	USD	600.00	FALSE				
35	USD	100.00	FALSE				
36							
37							
38							

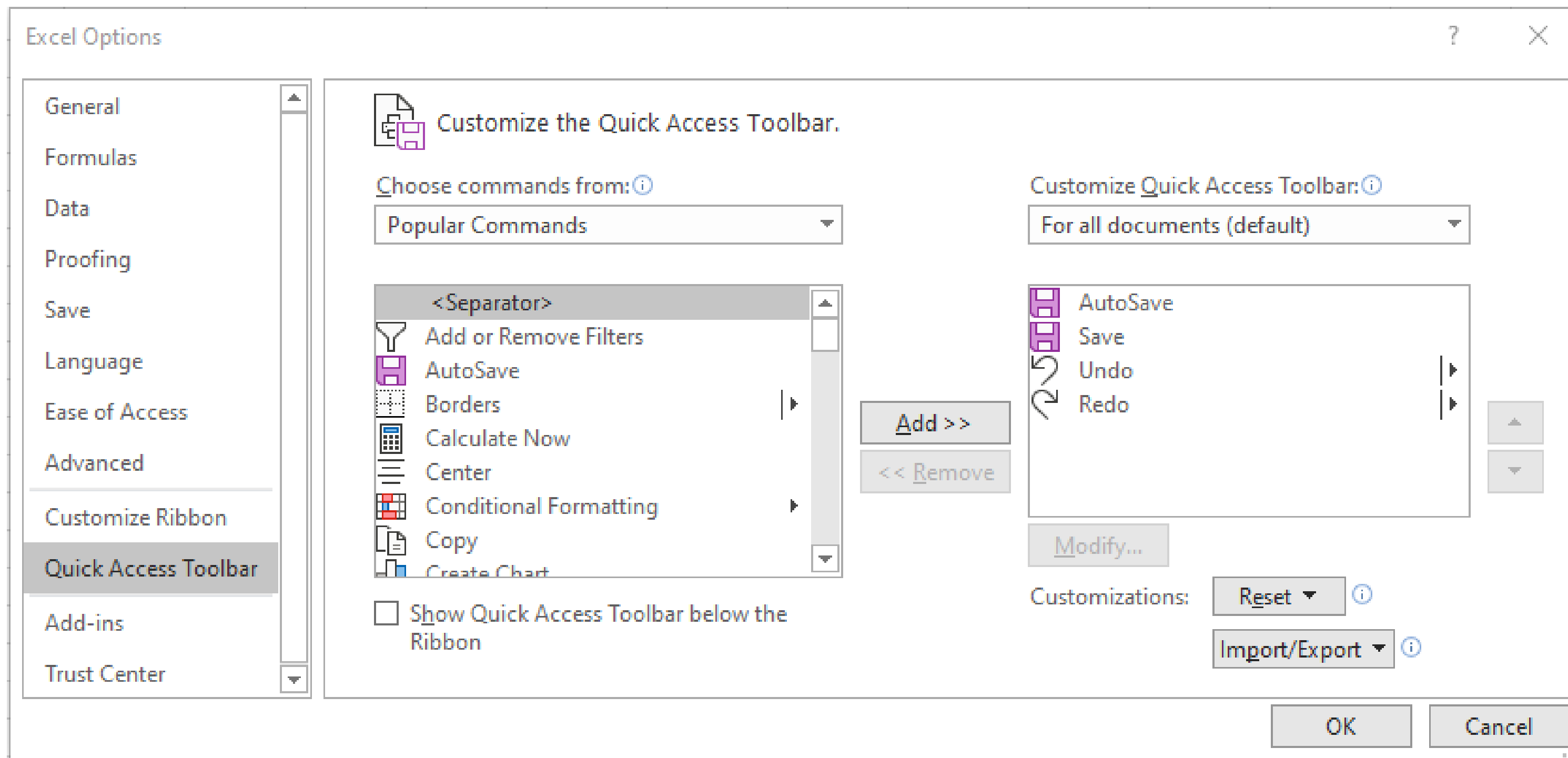
## What is the What If Analysis?

What If Analysis is the technique of performing changes to one or more formulas present in the cells in order to see how it affects the result of those formulas in the worksheet.



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# Can you create shortcuts for most frequently used formulas?



**49**

## **What is the difference between formulas and functions in Excel?**

Formulas are that are defined by the user that is used to calculate some results. Formulas either be simple or complex and they can consist of values, functions, defined names, etc.

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# How do you use wildcards with VLOOKUP?

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected. The formula bar displays the formula `=VLOOKUP(""&F6&"",A1:D10, 3, FALSE)`, which is highlighted with a red box. The spreadsheet contains a table with employee data. In cell F6, the text 'erg' is entered. The result of the VLOOKUP formula, 'Junior Software Engineer', is displayed in cell G6, which is highlighted with a green box.

	A	B	C	D	E	F	G
1	Name	ID	Designation	Salary			
2	Jon	101	Senior Developer	\$ 1,000.00			
3	Ivan	102	DBA	\$ 800.00			
4	Percy	103	Project Manager	\$ 1,300.00			
5	Torres	104	Associate Developer	\$ 450.00			
6	Leo	105	Hadoop Admin	\$ 750.00		erg	Junior Software Engineer
7	Sergio	106	Junior Software Engineer	\$ 400.00			
8	Chris	107	System Engineer	\$ 600.00			
9	Rafa	105	Team Lead	\$ 900.00			
10	RAFA	108	CEO	\$ 2,000.00			
11							