

EXERCISE

1. Can you add comments to a Cell?
2. How do you freeze panes in Excel?
3. How do you create Named Ranges?
4. How do you create dropdown lists in Excel?
5. What do you understand by Excel functions?
6. What are the various categories of functions available in Excel?
7. What is the operator precedence of formulas in Excel?
8. Explain SUM and SUMIF functions.
9. What are the different types of COUNT functions available in Excel?
10. What is the difference between formulas and functions in Excel?

SOLUTIONS

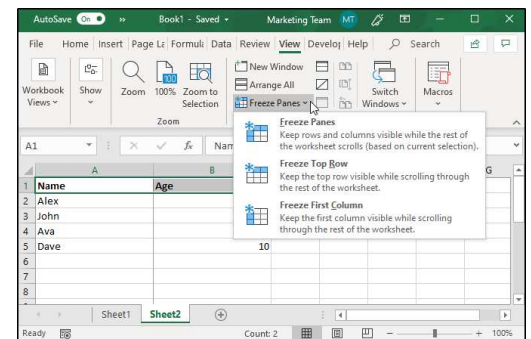
ANSWER-1

Yes, comments can be added. To add comments to a cell, select the cell, right-click on it and then select the New Comment option. These comments will be visible to all those people who have access to the Excel sheet

ANSWER-2

MS Excel allows you to freeze panes that will help you see the headings of the rows and the columns even if scroll down a long way on the sheet. To Freeze Panes in Excel, follow the given steps:

1. First, select the Rows and Columns you wish to freeze
2. Then, select Freeze Pane present in the View tab
3. Here, you will see the following three options to selectively freeze the rows and columns as shown in the image below:



ANSWER-3

To create named ranges, follow the given steps:

- Select the area to which you intend to give a name
- From Ribbon, select Formulas
- Click on Define Name from Defined Names group
- Give any name of your choice

ANSWER-4

To create dropdown lists, follow the given steps:

- Click on Data tab present in the ribbon
- Then, from the Data Tools group, click on Data Validation
- Navigate to Settings>Allow>List

- Select the source list array

ANSWER-5

Functions, in Excel, are used to perform specific tasks. Excel has many built-in functions that are used to calculate results of various formulas thereby helping in time conservation. Also, these functions make it very easy to execute formulas which would have been difficult to manually write down.

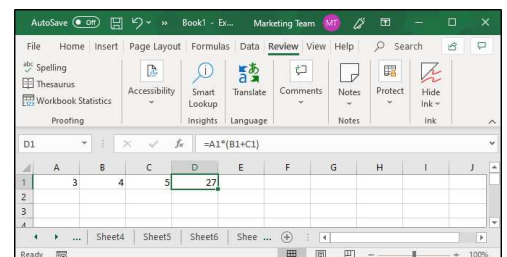
ANSWER-6

Functions in Excel are categorized as follows:

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
Information	INFO, ERROR.TYPE, TYPE, ISERROR, etc
Engineering	COMPLEX, CONVERT, DELTA, OCT2BIN, etc
Cube	CUBESET, CUBENUMBER, CUBEVALUE, etc
Compatibility	PERCENTILE, RANK, VAR, MODE, etc
Web	ENCODEURL, FILTERXML, WEBSERVICE

ANSWER-7

Formulas in Excel are executed according to the BODMAS rules. BODMAS, as many of us know, stands for Brackets Order Division Multiplication Addition and Subtraction. That means, in every formula, brackets are executed first (if they are present) followed by multiplication, division, etc. An example of the same is shown in the image below:



As you can see, the output is 27 i.e obtained by first adding 4+5 and then multiplying it by 3. In case you do not specify the brackets, you will get the result by first multiplying 3×4 and then adding 5 to it i.e 12+5 resulting in 17.

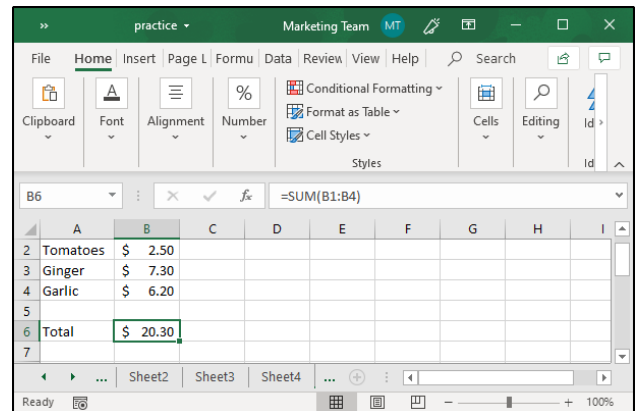
ANSWER-8

SUM: The SUM function is used to calculate the sum of all the values that are specified as a parameter to it. The syntax of this function is as follows:

SUM(number1, number2, ...)

EXAMPLE:

As you can see in the image, the SUM function is calculating the total price for all the vegetables.



The screenshot shows an Excel spreadsheet with the following data:

	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 formula bar shows the formula `=SUM(B1:B4)` entered in cell B6.

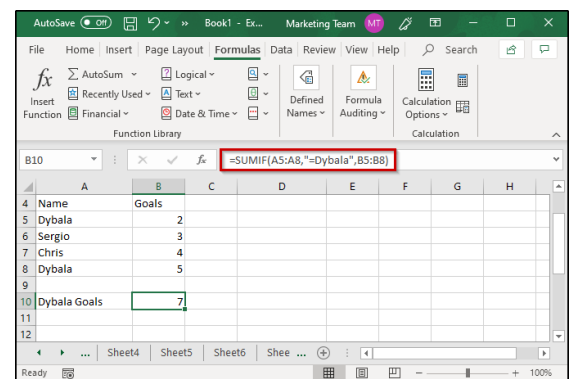
SUMIF: This function is used to calculate the sum of values that comply with a given condition.

SYNTAX:

SUMIF(range, criteria, [sum_range])

where,

- **range** specifies the range of cells to be evaluated
- **criteria** provides the condition to be met
- **sum_range** is optional and provides the actual cells to be summed up



The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H
4	Name	Goals						
5	Dybala	2						
6	Sergio	3						
7	Chris	4						
8	Dybala	5						
9								
10	Dybala Goals	7						
11								
12								

The formula bar shows the formula `=SUMIF(A5:A8,"=Dybala",B5:B8)` entered in cell B10.

EXAMPLE:

As you can see, the SUMIF function is calculating the sum of goals scored only by Dybala.

ANSWER-9

Excel provides five types of COUNT functions i.e COUNT, COUNTA, COUNTBLANK, COUNTIF, and COUNTIFS.

The COUNT returns the total number of cells that have numbers in the range that is specified to it as a parameter.

SYNTAX:

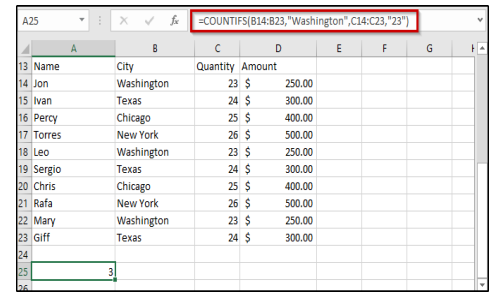
The screenshot shows the Microsoft Excel ribbon with the 'Formulas' tab selected. The ribbon includes options like File, Home, Insert, Page Layout, Formulas, Data, Review, View, Help, and Search. The Formulas tab is active, displaying the Function Library with categories like AutoSum, Recently Used, Financial, Date & Time, Logical, Text, Defined Names, Formula Auditing, and Calculation. The Formula Bar shows the formula '=COUNTBLANK(A4:B10)'.

COUNTIFS: This is a special function that allows you to specify a set of conditions in order to count them.

SYNTAX:

COUNTIFS(criteria_range1,range1,[criteria_range2, criteria2], ...)

EXAMPLE:



The screenshot shows an Excel spreadsheet with a table of data. The formula bar at the top displays the formula `=COUNTIFS(B14:B23,"Washington",C14:C23,"23")`, which is highlighted with a red box. The table data is as follows:

Name	City	Quantity	Amount
Jon	Washington	23	\$ 250.00
Ivan	Texas	24	\$ 300.00
Percy	Chicago	25	\$ 400.00
Torres	New York	26	\$ 500.00
Leo	Washington	23	\$ 250.00
Sergio	Texas	24	\$ 300.00
Chris	Chicago	25	\$ 400.00
Rafa	New York	26	\$ 500.00
Mary	Washington	23	\$ 250.00
Giff	Texas	24	\$ 300.00

The result of the formula, which is 3, is displayed in cell A25.

ANSWER-10

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.

A function, on the other hand, is a built-in piece of code that is used to perform some particular action. Excel provides a huge number of built-in functions such as SUM, PRODUCT, IF, SUMIF, COUNT, etc.