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Using Multiple Formula and Function Together in MS Excel

Microsoft Excel

Module 51 - Using Multiple Formula and Function Together in MS Excel

Multiple Formula and Function

Functions in Excel are the predefined formulas that have their specific meaningful work. They make our task easy and quick like finding the sum, count, average, maximum value, and minimum values for a range of cells.

1. **Sum():** It adds all the values in a range of cells.  
=Sum: SUM(number1, number2, ...)
2. **Sumif():** It Adds all the values in a range of cells that meet a specified condition.  
= SUMIF(range,criteria,[sum\_range]).

	A	B	C	D
1	Items	Quantity(kg)	Cost	
2				
3	Pumpkin	1	16	
4	Lady Finger	2	20	
5	Brinjal	5	80	
6	Potato	4	53	
7	Tomato	2	16.5	
8	lemon	1	23	
9	Ginger	0.5	12	
10	Corriander	0.5	13	
11	Cabbage	1	26	
12	Guard	2	32	
13	Cucumber	6	112	
14				
15				
16			102	
17				

3. **Average():** It calculates the average value in a range of cells.  
=Average: AVERAGE(number1, number2, ...)
4. **Averagelf():-** It Calculates the average value in a range of cells that meet the specified criteria.  
=AVERAGEIF(range,criteria,[average\_range]).

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1	A	B	C	D	E
2	Items	Quantity(kg)	Cost		
3	Pumpkin	1	16		
4	Lady Finger	2	20		
5	Brinjal	5	80		
6	Potato	4	53		
7	Tomato	2	16.5		
8	lemon	1	23		
9	Ginger	0.5	12		
10	Corriander	0.5	13		
11	Cabbage	1	26		
12	Guard	2	32		
13	Cucumber	6	112		
14					
15					
16					34
17					

5. **Max():** It will find the maximum value in the given range of values.  
=Max: MAX(number1, number2, ...)

6. **Min():** It will find the minimum value in the given range of values.  
=Min: MIN(number1, number2, ...)

7. **Len():** It will return the number of characters in a string text.

1	A	B	C	D
2	Items	Quantity(kg)	Cost	
3	Pumpkin	1	16	
4	Lady Finger	2	20	
5	Brinjal	5	80	
6	Potato	4	53	
7	Tomato	2	16.5	
8	lemon	1	23	
9	Ginger	0.5	12	
10	Corriander	0.5	13	
11	Cabbage	1	26	
12	Guard	2	32	
13	Cucumber	6	112	
14				
15				
16				
17		length of ginger		6
18		length of brinjal		7
19				
20				

8. **Count():** It will count the number of cells in a range of cells.

1	A	B	C	D
2	Items	Quantity(kg)	Cost	
3	Pumpkin	1	16	
4	Lady Finger	2	20	
5	Brinjal	5	80	
6	Potato	4	53	
7	Tomato	2	16.5	
8	lemon	1	23	
9	Ginger	0.5	12	
10	Corriander	0.5	13	
11	Cabbage	1	26	
12	Guard	2	32	
13	Cucumber	6	112	
14				
15				5
16				

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**9. COUNT Function :**

It is used to count the number of cells that contain numbers in a specified range of cells.

**Syntax :**

**=COUNT(value1,value2,...)**

Value1, Value2 are the range in which you want to count.

For example:

	A	B	C	D	E	F
1	1					
2	2					
3	3		Count	=COUNT(A1:A6)		
4	4		Result	5		
5	5					
6	Abc					

**10. COUNTA Function:**

It is used to count number of non-blank cells in a specified range of cells.

**Syntax:**

**=COUNTA(value1,value2)**

Value1, Value2 are the range in which you want to count.

For Example:

	A	B	C	D	E
1	1				
2	2				
3	3		CountA	=COUNTA(A1:A6)	
4	Bn		Result	6	
5	XYZ				
6	Abc				

**11. COUNTBLANK Function:**

It is used to count the number of blank cells in a specified range of cells.

**Syntax :**

**=COUNTBLANK(Value1,Value2)**

Value1, Value2 are range in which you want to count.

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For Example:

	A	B	C	D	E	F	G
1							
2							
3				Countblank	=COUNTBLANK(A1:C4)		
4				Result	12		

**12. COUNTIF Function:**

It is used to count the number of cells based on a specified condition.

Syntax:

=COUNTIF(range,criteria)

range : the range in which you want to count.

criteria : the condition based on which you want to count.

For Example:

	A	B	C	D	E	F
1	Name	Gender				
2	James	Male				
3	John	Male	Countif	=COUNTIF(B1:B4,"Male")		
4	Salena	Female	Result	2		
5						

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**Solved Example**

ID	Name	Department	Salary	Bonus	Age	Attendance	Experience (Years)	Performance Rating (1-5)
E00133	Aarti	Sales	50000	5000	28	Present	4	4
E002	Bharat	HR	45000	4500	35	Present	8	3
E003	Charu	Sales	52000		31	Absent	6	5
E004	Deepak	IT	60000	6000	40	Present	10	4
E005	Esha	HR	47000	4700	29	Present	5	3
E006	Farhan	IT	58000		38	Present	9	2
E007	Gauri	Sales	51000	5100	27		3	4
E008	Harsh	IT	59000	5900	45	Absent	12	5
E009	Isha	HR	46000		32	Present	7	2
E010	Jai	Sales	53000	5300	30	Present	4	5

**1. SUM**

- Total salary paid: ₹5,21,000
- Total bonus paid: ₹36,500

**2. SUMIF**

- Total salary for Sales: ₹2,06,000 (Aarti, Charu, Gauri, Jai)
- Total bonus for IT: ₹11,900 (Deepak, Harsh)

**3. AVERAGE**

- Average salary: ₹52,100
- Average age: 33.5 years

**4. AVERAGEIF**

- Average salary in HR: ₹46,000 (Bharat, Esha, Isha)
- Average bonus in Sales:  
Only Aarti, Gauri, Jai got bonuses:  
(5000 + 5100 + 5300) / 3 = ₹5133.33

**5. MIN / MAX**

- Minimum salary: ₹45,000
- Maximum bonus: ₹6000  
→ Deepak received it.

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6. COUNT

- Employees in dataset: **10**
- Employees who received a bonus: **7**

7. COUNTBLANK

- Employees with no bonus: **3** (Charu, Farhan, Isha)
- Blank attendance: **1** (Gauri)

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