

## 1. Explain the difference between Relative, Absolute and Mixed Cell Referencing.

- Relative Referencing:** This is the default behavior in Excel. When you copy a formula, the cell references change based on the relative position of rows and columns. For example, if =A1 in cell B1 is copied down to B2, it becomes =A2.
- Absolute Referencing:** This keeps a cell reference constant even if the formula is copied or moved. You lock the reference by adding dollar signs (e.g., =\$A\$1).
- Mixed Referencing:** This locks either the row or the column, but not both. For example, =\$A1 locks column A but allows the row to change, while =A\$1 locks row 1 but allows the column to change

## 2. You have the following datasets

Vehical	Price
Car	500000
Bicycle	10500
Auto-Rickshaw	25000
Total=	510500

Write a formula to calculate the total sales of Car and Bicycle only.

Formula =sum(B4,B5)

## 3. Using the data below, write a formula to calculate the average sales of items priced above 100 but less than 300:

Item	Price	Sales	Average
Item A	90	1000	1350
Item B	150	1200	
Item C	250	1500	

The average sales of items priced above 100 but less than 300 =AVERAGEIFS(C12:C14,B12:B14,">100",B12:B14,"<300")

Note: Use the following Dataset and solve the following questions.

- Count how many customer names are recorded.
- Calculate the Total Sales for each row using a formula.
- Calculate the total sales of Notebooks in the North region only.
- Create a column chart showing total sales by product.
- Insert a line chart showing daily sales trend.

Sales Data							Total Sale
OrderID	CustomerName	Region	Product	Quantity	UnitPrice	OrderDate	
1001	Amit Sharma	North	Notebook	10	50	05-01-2024	500
1002	Neha Verma	South	Pen	20	10	06-01-2024	200

ID	Name	Location	Item Type	Quantity	Unit Price	Order Date		Total Value
1003	Rahul Singh	East	Marker	15	25	07-01-2024		375
1004	Pooja Mehta	West	Notebook	5	50	08-01-2024		250
1005	Ankit Jain	North	Pencil	30	5	10-01-2024		150
1006	Sneha Patel	South	Notebook	12	50	11-01-2024		600
1007	Vikas Gupta	East	Eraser	25	8	13-01-2024		200
1008	Meera Nair	West	Pen	18	10	15-01-2024		180
1009	Anjali Rao	North	Marker	22	25	17-01-2024		550
1010	Manoj Das	South	Notebook	8	50	18-01-2024		400
1011	Ritika Sen	East	Pencil	40	5	19-01-2024		200
1012	Karan Malhotra	West	Eraser	35	8	20-01-2024		280
1013	Aryan Joshi	North	Notebook	14	50	22-01-2024		700
1014	Divya Kapoor	South	Pen	28	10	23-01-2024		280
1015	Sahil Arora	East	Marker	12	25	24-01-2024		300
1016	Muskan Jain	West	Pencil	25	5	26-01-2024		125
1017	Rohan Gupta	North	Eraser	20	8	28-01-2024		160
1018	Nidhi Sharma	South	Notebook	10	50	29-01-2024		500
1019	Tarun Verma	East	Pen	15	10	30-01-2024		150
1020	Simran Kaur	West	Marker	18	25	01-02-2024		450
1021	Deepak Rao	North	Notebook	9	50	02-02-2024		450
1022	Payal Mehta	South	Pencil	35	5	03-02-2024		175
1023	Aditya Singh	East	Eraser	30	8	04-02-2024		240
1024	Shreya Nair	West	Notebook	11	50	06-02-2024		550
1025	Sanjay Kumar	North	Pen	14	10	07-02-2024		140
1026	Aarti Sharma	South	Marker	16	25	08-02-2024		400
1027	Rajesh Patel	East	Pencil	22	5	09-02-2024		110
1028	Preeti Joshi	West	Eraser	27	8	10-02-2024		216
1029	Anurag Mishra	North	Notebook	13	50	12-02-2024		650
1030	Sanya Kapoor	South	Pen	32	10	13-02-2024		320
1031	Harsh Yadav	East	Marker	10	25	14-02-2024		250
1032	Kajal Rani	West	Pencil	18	5	16-02-2024		90
1033	Varun Sharma	North	Eraser	22	8	17-02-2024		176

1034	Swati Arora	South	Notebook	17	50	18-02-2024		850	
1035	Akhil Jain	East	Pen	19	10	19-02-2024		190	
1036	Priyanka Das	West	Marker	15	25	21-02-2024		375	
1037	Ravi Nair	North	Pencil	28	5	22-02-2024		140	
1038	Komal Singh	South	Eraser	24	8	23-02-2024		192	
1039	Ayesha Khan	East	Notebook	16	50	25-02-2024		800	
1040	Arjun Mehta	West	Pen	27	10	26-02-2024		270	
1041	Sonali Gupta	North	Marker	21	25	27-02-2024		525	
1042	Neeraj Kapoor	South	Pencil	30	5	28-02-2024		150	
1043	Shruti Sharma	East	Eraser	26	8	01-03-2024		208	
1044	Yash Arora	West	Notebook	14	50	02-03-2024		700	
1045	Manish Das	North	Pen	20	10	03-03-2024		200	
1046	Rupal Nair	South	Marker	17	25	04-03-2024		425	
1047	Sonia Verma	East	Pencil	19	5	05-03-2024		95	
1048	Kunal Singh	West	Eraser	32	8	06-03-2024		256	
1049	Ritika Jain	North	Notebook	12	50	07-03-2024		600	
1050	Vivek Malhotra	South	Pen	25	10	08-03-2024		250	

**4. Count how many customer names are recorded.**

Formula =COUNTA(B21:B70)									
Count =	50								

**5. Calculate the Total Sales for each row using a formula.**

Formula =E21*F21									

**6. Calculate the total sales of Notebooks in the North region only.**

Formula =SUMPRODUCT((TRIM(D21:D70)="Notebook")\*(TRIM(C21:C70)="North")\*(E21:E70)\*(F21:F70))

Total Sales=	2900								

**7. Create a column chart showing total sales by product.**

Product	Formula	Total Sales
NoteBook	=SUMIF(D21:D70,"Notebook",I21:I70)	7550
Pen	=SUMIF(D21:D70,"Pen",H21:H70)	2180
Marker	=SUMIF(D21:D70,"Marker",I21:I70)	3650
Pencil	=SUMIF(D21:D70,"Pencil",I21:I70)	1235
Eraser	=SUMIF(D21:D70,"Eraser",I21:I70)	1928