

1. Write a formula to check if the marks in cell are greater than or equal to 40. If yes, return B2 "Fail".?

Student Name	Marks
Riya	45
Siya	72
Raju	55
Rahul	80
Ram	30

→ To check if the marks in cell **B2** are greater than or equal to 40:

- **Formula:** =IF(B2>=40, "Pass", "Fail")
- **Results for the table:**
  - Riya (45): Pass
  - Ram (30): Fail

	A	B	C	D	I
1	Student Name	Marks	Result		
2	Riya	45	Passed		
3	Siya	72	Passed		
4	Raju	55	Passed		
5	Rahul	80	Passed		
6	Ram	30	Failed		

2. A company gives a bonus if sales are above 40,000 and attendance is greater than or equal to 90%. Write a formula to calculate whether the employee will get a bonus or not.

Employee	Sales	Attendance
Arjun	55000	95
Simran	65000	85
Rohit	30000	90
Anjali	25000	65

- A bonus is granted if sales are > **40,000** and attendance is  $\geq 90\%$ .
  - **Formula:** =IF(AND(B2>40000, C2>=90%), "Bonus", "No Bonus")
  - **Results for the table:**
    - **Arjun:** Bonus (55,000 sales, 95% attendance)
    - **Simran:** No Bonus (Attendance < 90%)
    - **Rohit:** No Bonus (Sales < 40,000)
    - **Anjali:** No Bonus (sales<40000, attendance < 90%)

	A	B	C	D	E	F	G	H
1	Employee	Sales	Attendance	Result				
2	Arjun	55000	95	Bonus				
3	Simran	65000	85	No Bonus				
4	Rohit	30000	90	No Bonus				
5	Anjali	25000	65	No Bonus				
6								
7								

3. Write a nested IF formula:

If marks in **B2** are  $\geq 90 \rightarrow \text{"A"}$  ,  $\geq 75 \rightarrow \text{"B"}$  ,  $\geq 50 \rightarrow \text{"C"}$  , otherwise “Fail”.

Student Name	Marks
Raj	85
Neha	96
Vivek	57
Rani	92
Sneha	75

- To assign grades based on marks in cell **B2**:
- **Formula:** =IF(B2>=90, "A", IF(B2>=75, "B", IF(B2>=50, "C", "Fail")))

- **Results for the table:**

- Neha (96): A
- Raj (85): B
- Vivek (57): C
- Rani (92): A
- Sneha(75): B

The screenshot shows a Microsoft Excel spreadsheet. The formula bar at the top contains the formula: =IF(B2>=90, "A", IF(B2>=75, "B", IF(B2>=50, "C", "Fail"))). The table below has columns for Student Name (A), Marks (B), and Result (C). The Result column uses the formula from the formula bar. Row 2 shows Raj with a mark of 85 and a result of B. Rows 3 through 6 show Neha (96 A), Vivek (57 C), Rani (92 A), and Sneha (75 B) respectively. Row 7 is empty.

	A	B	C	D	E	F	G	H
1	Student Name	Marks	Result					
2	Raj	85	B					
3	Neha	96	A					
4	Vivek	57	C					
5	Rani	92	A					
6	Sneha	75	B					
7								

4. Find the **Department** of Employee ID = E103. Also explain which LOOKUP function is used and why?

EmpID	Name	Department
E101	Raju	IT
E102	Riya	HR
E103	Roshni	Finance
E104	Sejal	Sales

→ To find the department for **EmpID E103**:

- **Formula:** =VLOOKUP("E103", A2:C5, 3, FALSE)
- **Result:** Finance
- **Explanation:** VLOOKUP is used because the data is organized vertically and the unique identifier (EmpID) is in the leftmost column of the range.

D3 :  $=VLOOKUP("E103", A2:C5, 3, FALSE)$

	A	B	C	D	E	F
1	EmplID	Name	Department			
2	E101	Raju	IT			
3	E102	Riya	HR	Finance		
4	E103	Roshni	Finance			
5	E104	Sejal	Sales			
6						

5. A company has set the following **commission structure** for its sales team:

Sales Amount	Commission Rate
0	5%
20000	10%
50000	15%
80000	20%

If a salesperson achieves **sales of ₹45,000**, use the **VLOOKUP** function to determine the **commission rate** applicable.

- To determine the commission rate for sales of ₹45,000:

- **Formula:** `=VLOOKUP(45000, A2:B5, 2, TRUE)`
- **Result:** 10% (Since 45,000 is between 20,000 and 50,000)

C2 :  $=VLOOKUP(45000, A2:B5, 2, TRUE)$

	A	B	C	D
1	Sales Amount	Commission Rate		
2	0	5%	10.00%	
3	20000	10%		
4	50000	15%		
5	80000	20%		
6				

6. The HR department maintains the following leave records of employees: onus or not.

Employee Name	Leaves Taken	Leaves Allowed
Alex	10	12
Bob	10	15
Anna	8	12

Write an **IF function** to check whether an employee has **Exceeded** their allowed leave balance.

- If **Leaves Taken > Allowed Leaves**, display "**Exceeded**".
- Otherwise, display "**OK**".

- To check if an employee exceeded their allowed leaves:

- **Formula:** `=IF(B2>C2, "Exceeded", "OK")`
- **Results for the table:**
  - Alex (10/12): OK
  - Bob (10/15): OK
  - Anna (8/12): OK

The screenshot shows a Microsoft Excel spreadsheet. The formula bar at the top displays the formula `=IF(B2>C2, "Exceeded", "OK")`. Below the formula bar is a table with four columns: A (Employee Name), B (Leaves Taken), C (Leaves Allowed), and D (the result of the IF function). The table has five rows, numbered 1 to 5. Row 1 is the header. Rows 2, 3, and 4 contain data for Alex, Bob, and Anna respectively. Row 5 is empty. The cells in column D are colored red for rows 2 and 3, indicating that the condition in the formula was true (Leaves Taken > Leaves Allowed). The cells in column D for rows 1 and 4 are white, indicating that the condition was false (Leaves Taken ≤ Leaves Allowed).

	A	B	C	D
1	Employee Name	Leaves Taken	Leaves Allowed	
2	Alex	10	12	OK
3	Bob	10	15	OK
4	Anna	8	12	OK
5				

7. Find the salary of EmpID = E105 using **INDEX-MATCH Function**.

EmpID	Salary
E104	55000
E105	72000
E106	62000
E102	41000

→ To find the salary of **EmpID E105**:

- **Formula:** =INDEX(B2:B5, MATCH("E105", A2:A5, 0))
- **Result:** 72,000

The screenshot shows an Excel spreadsheet with a table of employee data. The table has columns for EmpID and Salary. Row 1 contains the column headers. Rows 2 through 5 contain data for employees E104, E105, E106, and E102 respectively. The formula =INDEX(B2:B5, MATCH("E105", A2:A5, 0)) is entered into cell C2. The formula bar at the top also displays this formula. The cell C2 contains the value 72000, which is highlighted in red. The rest of the cells in the table are blue.

	C2					
1	A	B	C	D	E	F
2	EmpID	Salary				
3	E104	55000	72000			
4	E105	72000				
5	E106	62000				
	E102	41000				

8. Use the **XLOOKUP function** to find the **Department** of the employee with **Emp ID = E303**.

EmpID	Salary
E101	HR
E303	IT
E106	Sales
E301	Finance

→ To find the Department of the employee with Emp ID E303:

- **Formula:** =XLOOKUP("E303", A2:A5, B2:B5)
- **Result:** IT

C2           =XLOOKUP("E303", A2:A5, B2:B5)

	A	B	C	D	E	F
1	EmplID	Salary				
2	E101	HR	IT			
3	E303	IT				
4	E106	Sales				
5	E301	Finance				
6						