Solutions-

# IF Function:

* + Determine if employees are earning above or below $50,000. Use the IF function to display "Above" or "Below".

USING-

=IF($F2>50000,"Above 50000","Below 50000")

# IFS Function:

* + Assign a performance rating based on the number of project hours: "Excellent" for 50 or more hours, "Good" for 40-49 hours, "Average" for 30-39 hours, and "Poor" for below 30 hours.

USING-=IFS($J2>=50,"EXCELLENT",$J2>=40,"GOOD",$J2>=30,"AVERAGE",$J2<30,"POOR")

# AND Function:

* + Check if employees from the HR department and North region have sales above

$15,000.

USING-

=if(AND($E2="HR",$I2="North"),IF($H2>15000,"Above 15000","Below 15000")," ")

# OR Function:

* + Identify employees who are either in the IT department or have a salary above

$60,000.

USING-

=IF(OR($E2="IT",$F2>60000),"TRUE","FLASE")

# NOT Function:

* + Determine if employees are not from the Marketing department.

USING-

=NOT($E2="Marketing")

# SUMIF Function:

* + Calculate the total salary of employees from the Sales department.

USING-

=SUMIF($E$2:$E$201,"Sales",$F$2:$F$201)

Answer-1813735

# SUMIFS Function:

* + Calculate the total salary of employees in the IT department who have more than 35 project hours.

USING-

=SUMIFS($F$2:$F$201,$E$2:$E$201,"IT",$J$2:$J$201,">35")

Answer-1629219

# COUNTIF Function:

* + Count the number of employees in the HR department.

USING-

=COUNTIF($E$2:$E$201,"HR")

Answer-44

# COUNTIFS Function:

* + Count the number of female employees in the Finance department.

USING-

=COUNTIFS($D$2:$D$201,"F",$E$2:$E$201,"Finance")

Answer-22

# AVERAGEIF Function:

* + Find the average salary of employees in the Marketing department.

USING-

=AVERAGEIF($E$2:$E$201,"Marketing",$F$2:$F$201)

Answer-53389.47

# AVERAGEIFS Function:

* + Find the average sales for employees in the North region with project hours above 40.

USING-

=AVERAGEIFS($H$2:$H$201,$I$2:$I$201,"North",$J$2:$J$201,">40")

Answer-22015.65

# MAXIFS Function:

* + Determine the maximum salary among employees in the South region.

USING-

=MAXIFS($F$2:$F$201,$I$2:$I$201,"South")

Answer-77358

# MINIFS Function:

* + Find the minimum number of project hours for employees in the Finance department.

USING-

=MINIFS($J$2:$J$201,$E$2:$E$201,"Finance")

Answer-22

# VLOOKUP Function:

* + Use VLOOKUP to find the salary of an employee based on their ID.

USING-

=IFERROR(VLOOKUP($S19,$A$2:$J$501,6,0),"")

Answer- for input 1->70986

# HLOOKUP Function:

* + Use HLOOKUP to find the joining date of employees based on their department.

USING-

=HLOOKUP($G$1,$G$1:$G$201,MATCH($S22,$E$1:$E$201,0), FALSE)

Answer- for input Finance->2018-10-12

# INDEX and MATCH Functions:

* + Use INDEX and MATCH to find the sales amount for a specific employee.

USING-

=IFERROR(INDEX($H$2:$H$501,MATCH($S25,$A$2:$A$501,0)),"")

Answer- for input 1->13394

# Conditional Formatting:

* + Highlight cells in the Salary column that are above $60,000.

Range-F1:F201  
Value is greater than 60000

# Pivot Table:

* + Create a pivot table to summarize average sales by region and department.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Region* | *Finance* | *HR* | *IT* | *Marketing* | *Sales* | *Grand Total* |
| *East* | *21695.25* | *28007.40* | *26365.25* | *21329.22* | *27965.25* | *24950.69* |
| *North* | *25643.80* | *23668.00* | *27001.67* | *23127.73* | *21239.38* | *24329.35* |
| *South* | *25144.55* | *21239.92* | *28201.22* | *28375.08* | *26815.00* | *25733.42* |
| *West* | *25450.90* | *20289.00* | *28969.90* | *21917.83* | *19889.70* | *23357.26* |
| ***Grand Total*** | ***24369.30*** | ***23147.27*** | ***27532.86*** | ***24167.79*** | ***23544.50*** | ***24610.37*** |

# Data Validation:

* + Set up data validation to allow only dates after 2015-01-01 in the Joining Date column.

Range- G2:G201

Date is after 2015-01-01

# Chart Creation:

Create a bar chart to visualize the total sales by department

