Quiz for 'Introduction to Excel Analysis'

- Total: 10 questions, 10 points each, total score 100 points

- Please write your answers in the Excel file provided.
      1st Tab : Q.1~8 Answers
      2~4th Tab : Q.9 Answer
      5~7th Tab : Q.10 Answer

- Save the file using the format: FirstName_LastName (e.g., Thomas_Peterson)

Q1. Which statement correctly lists key advantages of XLOOKUP over VLOOKUP?

 A) Only allows rightward search and exact matches.
 B) Requires data to be sorted.
 C) Allows leftward and rightward search, defaults to exact match, and has built-in error handling.
 D) Better handles merged cells.

Q2. Given an employee's start date in cell A2 (2018-03-15), which formula correctly calculates full years of service?

 A) =TODAY()-A2
 B) =DATEDIF(A2, TODAY(), "Y")
 C) =YEAR(TODAY())-YEAR(A2)
 D) =TEXT(TODAY()-A2,"0")

Q3. You want to label a customer as "Preferred" if sales (B2) ≥ 10,000 and purchase count (C2) ≥ 5. Which formula works best?

 A) =IF(OR(B2>=10000, C2>=5), "Preferred", "Regular")
 B) =IF(AND(B2>=10000, C2>=5), "Preferred", "Regular")
 C) =IF(B2>=10000, "Preferred", IF(C2>=5, "Preferred", "Regular"))
 D) =IF(AND(B2>10000, C2>5), "Preferred", "Regular")

Q4. You want to calculate Price (B2) / Quantity (C2) but avoid division errors when Quantity = 0. Which formula is best?

 A) =B2/C2
 B) =IF(C2=0, "Quantity Error", B2/C2)
 C) =IFERROR(B2/C2, "Quantity Error")
 D) =IF(B2=0, "Quantity Error", B2/C2)

Q5. You want to apply conditional formatting to highlight sales over 50,000 in green and below 20,000 in red. What's the correct approach?

 A) Use "Highlight Cell Rules > Greater Than" and create two separate rules for >50,000 and <20,000.
 B) Use Data Bars with green color.
 C) Use an Icon Set with three traffic lights.
 D) Use filtering to hide values below 20,000.

Q6. When removing duplicate customer records, you only want to consider Name and Email columns. What should you do?

 A) Select all columns when removing duplicates.
 B) Only select the Name column.
 C) Select both Name and Email columns as the duplicate criteria.
 D) Let Excel automatically choose the most reliable columns.

Q7. In a Pivot Table, how can you summarize the "Sales Quantity" field by Average instead of Sum?

 A) Set summary function to Average while creating the Pivot Table.
 B) Change the entire Pivot Table's default setting to Average.
 C) Change the "Value Field Settings" to Average after the Pivot Table is built.
 D) Pre-calculate averages in the original data before creating the Pivot Table.

Q8. You want to automate repetitive formatting tasks in Excel with VBA. What's the most practical approach?

 A) Write VBA code manually from scratch every time.
 B) Record a Macro and then edit the VBA code for optimization.
 C) Use Excel formulas to handle all repetitive tasks instead of VBA.
 D) Hire a professional developer even for simple automation.

Q9. Summarize and Rank Customers by Total Sales

📌**Business Scenario**

Your company is preparing a customer-level sales analysis to support the marketing and account management teams. You've been asked to create a cleaned dataset that combines sales records with customer profiles, summarizes total revenue per customer, and classifies customers based on their loyalty and performance.

✍ **Problem Statement**

Use the SalesData and CustomerData sheets to complete the customer-level summary below in a new sheet called CleanedData:

You must:

1. Extract unique Customer IDs from the SalesData

2. Use lookup functions to fill in Name, Region, and Join Year

3. Calculate the total sales per customer

4. Classify each customer by logic

Condition	Result
Sales Amount ≥ $10,000	Top VIP
Join Year < 2022	Loyal
Join Year ≥ 2023	New
Anything not matching above	General

5. Rank customers by total sales

6. Create a bar chart visualizing the top customer rankings

Customer ID	Name	Region	Join Year	Sales Amt($)	Customer Type	Rank

Your Excel Tab (2ⁿᵈ Tab) should contain the elements below:
1. The CleanedData table with all columns completed
2. A bar chart visualizing the top customer rankings by Sales Amount

Your Excel Tab (2ⁿᵈ Tab) should look below:

Customer ID	Name	Region	Join Year	Sales Amt($)	Customer Type	Rank
C1032	Rachel Kim	West	2021	11,400	Top VIP	1
C1060	James Wilson	North	2022	7,000	General	2
C1041	Jonathan Price	East	2023	5,000	New	3
C1055	Maria Lopez	South	2020	3,800	Loyal	4
C1080	Sarah Chen		2023	3,000	New	5

Top Customer Revenue

Q10. Build a Multi-Chart Pivot Dashboard for Monthly Sales Analysis

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📌 **Business Scenario**
Your leadership team has asked you to build a visual sales dashboard that summarizes sales performance using the latest transactional data.
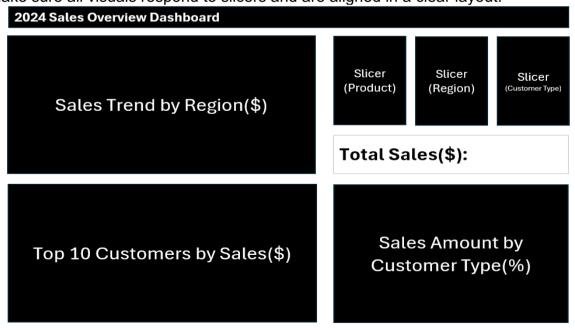
 The dashboard will help monitor:

- Monthly sales trends by region
- Total sales value
- Sales amount distribution by customer type
- Top 10 customers by revenue

✍️ **Problem Statement**
Create a clean, interactive Excel dashboard using the SalesData table.
 Your dashboard must contain:

- A line chart showing sales trend by region (monthly view)

- A donut chart displaying sales distribution by customer type

- A text box displaying the total sales amount (KPI style)

- A horizontal bar chart for top 10 customers by revenue

  Make sure all visuals respond to slicers and are aligned in a clear layout.

2024 Sales Overview Dashboard

Sales Trend by Region($)		Slicer (Product)	Slicer (Region)	Slicer (Customer Type)
		Total Sales($):		
Top 10 Customers by Sales($)		Sales Amount by Customer Type(%)		

Your Excel Tab (3ʳᵈ or 4ᵗʰ Tab) should look below:

2024 Sales Overview Dashboard

Sales Trend by Region($)

Product	Region	Custo...
Laptop	East	General
Monitor	North	Loyal
Mouse	South	New
Printer	West	Top VIP

Total Sales($):   257,100

Top 10 Customers by Sales($)

Customer	Sales
Nimbus Inc.	21,300
Zenith Inc.	20,100
Nova Inc.	20,000
Omni Inc.	15,700
Cypher Inc.	15,600
Apex Inc.	15,600
Orion Inc.	15,400
Solace Inc.	15,300
Beacon Inc.	15,200
Quasar Inc.	14,500

Sales Amount by Customer Type(%)

27%   26%
24%   23%

■ General ■ Loyal ■ New ■ Top VIP