◆ General Questions

1. What is the purpose of the "Applied Steps" pane in Power Query?
It shows each transformation step applied to your data, allowing you to track, edit, reorder, or remove steps.

2. How do you remove duplicate rows in Power Query?
Go to the **Home** tab → Click **Remove Rows** → **Remove Duplicates**.

3. What does the "Filter" icon do in Power Query?
It allows you to filter rows based on values in a column (e.g., keep only specific dates, values, ranges).

4. How would you rename a column from "CustID" to "CustomerID"?
Right-click the **CustID** column header → choose **Rename** → type **CustomerID**.

5. What happens if you click "Close & Apply" in Power Query?
It applies all transformations and loads the data back into Power BI or Excel.

◆ Transformation Tasks

6. Remove all rows where Quantity is less than 2.

- Use the filter dropdown on **Quantity** → Select **Number Filters** → **is greater than or equal to** → enter 2.

  Option 2:

- = Table.SelectRows(Customer_Orders, each [Quantity] >= 2)

7. Split the OrderDate column into "Year", "Month", and "Day".

- Select **OrderDate** → go to **Add Column** → **Date** → choose **Year**, **Month**, and **Day**.

  Option 2:

- = Table.AddColumn(Customer_Orders, "Year", each Date.Year([OrderDate]), Int64.Type),
- Table.AddColumn(_, "Month", each Date.Month([OrderDate]), Int64.Type),
- Table.AddColumn(_, "Day", each Date.Day([OrderDate]), Int64.Type)

8. Replace all "Mouse" entries in the Product column with "Computer Mouse."

- Right-click **Product** column → **Replace Values** → find "Mouse", replace with "Computer Mouse".

Option 2:

- = Table.ReplaceValue(Customer_Orders, "Mouse", "Computer Mouse", Replacer.ReplaceText, {"Product"})

9. Sort the table by OrderDate (newest first).

- Click the dropdown on **OrderDate** → sort **Descending**.

  Option 2:

- = Table.Sort(Customer_Orders, {{"OrderDate", Order.Descending}})

10. How would you handle null values in the Price column?

- Options:
  - Replace nulls: **Transform → Replace Values →** null → 0 or another value.
  - Or filter out: **Home → Remove Rows → Remove Blank Rows**.
  - = Table.ReplaceValue(Customer_Orders, null, 0, Replacer.ReplaceValue, {"Price"})

◆ Advanced M Code Tasks

11. Write custom M-code to add a column calculating TotalSpent = Quantity * Price.
Go to **Add Column → Custom Column**:

```
= [Quantity] * [Price]
```

Option 2:

```
= Table.AddColumn(Customer_Orders, "TotalSpent", each [Quantity] * [Price], type
number)
```

12. Group the table by CustID to show total spending per customer.

- Go to **Home → Group By**:
  - Group by: CustID
  - New column: TotalSpent
  - Operation: **Sum** of TotalSpent or use custom step to multiply inside.

  Option 2:

  = Table.Group(Customer_Orders, {"CustID"}, {{"TotalSpent", each List.Sum([Quantity] * [Price]), type number}})

13. Fix inconsistent date formats in OrderDate (e.g., 01/10/2023 vs. 2023-01-10).

- Ensure **OrderDate** is of **Date** type:

- Select **OrderDate → Transform → Data Type → Date**.

Option 2:

= Table.TransformColumnTypes(Customer_Orders, {{"OrderDate", type date}})

14. Create a conditional column: Label orders as "High Value" if Price > 100.

- Go to **Add Column → Conditional Column**:
  - Name: `OrderValueLabel`
  - Condition: `Price > 100` → `High Value`, else → `Regular`.

  Option 2:

  = Table.AddColumn(Customer_Orders, "OrderLabel", each if [Price] > 100 then "High Value" else "Regular", type text)

15. Optimize the query to reduce refresh time (e.g., remove unused columns early).

- Remove unnecessary columns **as early as possible**:
  - Use **Home → Choose Columns** to keep only needed ones early in the steps.