1. **What is the purpose of the "Applied Steps" pane in Power Query?**
   * It shows a list of every transformation applied to your data, in order. You can review, edit, delete, or reorder steps here.
2. **How do you remove duplicate rows in Power Query?**
   * Select the columns to check for duplicates → Go to **Home** tab → Click **Remove Rows** → **Remove Duplicates**.
3. **What does the "Filter" icon do in Power Query?**
   * It lets you filter rows by specific values, ranges, text conditions, or date filters (similar to Excel filtering).
4. **How would you rename a column from "CustID" to "CustomerID"?**
   * Right-click on the column header → Select **Rename** → Type CustomerID.
5. **What happens if you click "Close & Apply" in Power Query?**
   * It applies all transformations and loads the cleaned data back into Power BI.

**🧹 Data Cleaning and Transformation**

1. **Remove all rows where Quantity is less than 2:**
   * Filter the Quantity column → Choose "is greater than or equal to 2".
2. **Split the OrderDate column into "Year", "Month", and "Day":**
   * Select OrderDate → Go to **Add Column** → **Date** → Select **Year**, **Month**, and **Day**.
3. **Replace all "Mouse" entries in the Product column with "Computer Mouse":**
   * Right-click Product column → **Replace Values** → Find "Mouse" and replace with "Computer Mouse".
4. **Sort the table by OrderDate (newest first):**
   * Click dropdown on OrderDate column → Sort descending.
5. **How would you handle null values in the Price column?**
   * Replace with 0: Right-click Price → **Replace Values** → Replace null with 0
   * Or remove rows: Use **Remove Rows** → **Remove Blank Rows**

**✍️ Advanced Transformations and M-code**

1. **Write custom M-code to add a column calculating TotalSpent = Quantity \* Price:**

Table.AddColumn(PreviousStep, "TotalSpent", each [Quantity] \* [Price])

1. **Group the table by CustID to show total spending per customer:**

* Go to **Home** → **Group By**
  + Group by: CustID
  + New column name: TotalSpending
  + Operation: **Sum**
  + Column: TotalSpent

1. **Fix inconsistent date formats in OrderDate:**

* Convert OrderDate to **Date** type:
  + Select column → **Transform** → **Data Type** → **Date**
  + Power Query will auto-parse if format is valid.

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

* Go to **Add Column** → **Conditional Column**
  + If Price > 100 then "High Value" else "Normal"

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

* Remove unneeded columns immediately after loading data using **Remove Columns**.
* Avoid steps like sorting or grouping before filtering.
* Minimize use of custom columns that require heavy calculations.