☑ What is the purpose of the "Applied Steps" pane in Power Query?

The **"Applied Steps" pane** tracks every change you make while cleaning or shaping your data—like filtering, renaming columns, or adding calculations. Think of it as a recipe list for your data transformation process. You can review, delete, or modify steps at any time.

☑ How do you remove duplicate rows in Power Query?

1. Select the columns you want to check for duplicates (or none to use all).
2. Go to the **Home** tab → click **Remove Rows** → choose **Remove Duplicates**.
   Power Query keeps the first instance and deletes the rest.

☑ What does the "Filter" icon do in Power Query?

The **Filter icon** (next to each column header) allows you to:

- Select specific values to include or exclude.
- Filter by text, number, or date conditions.
- Quickly remove or keep null values.

☑ How would you rename a column from "CustID" to "CustomerID"?

Right-click the column header **CustID** → select **Rename** → type **CustomerID**.
Or in the formula bar:

```m
КопироватьРедактировать
Table.RenameColumns(Source, {{"CustID", "CustomerID"}})
```

☑ What happens if you click "Close & Apply" in Power Query?

It applies all your transformations and **loads the final result** into Power BI's data model so you can use it in visuals, measures, and dashboards.

☑ Remove all rows where Quantity is less than 2

1. Select the **Quantity** column.
2. Go to **Home** tab → **Keep Rows** → **Keep Rows Where...**
3. Condition: `Quantity >= 2`

Or in M-code:

```m
КопироватьРедактировать
Table.SelectRows(Source, each [Quantity] >= 2)
```

✅ Split the OrderDate column into separate "Year," "Month," and "Day" columns

1. Select **OrderDate**.
2. Go to **Add Column** tab → **Date** → select **Year**, **Month**, **Day**.

M-code example:

```m
КопироватьРедактировать
= Table.AddColumn(Source, "Year", each Date.Year([OrderDate]))
= Table.AddColumn(Source, "Month", each Date.Month([OrderDate]))
= Table.AddColumn(Source, "Day", each Date.Day([OrderDate]))
```

✅ Replace all "Mouse" entries in the Product column with "Computer Mouse"

1. Select the **Product** column.
2. Go to **Transform → Replace Values**.
3. Replace "Mouse" with "Computer Mouse".

M-code:

```m
КопироватьРедактировать
Table.ReplaceValue(Source, "Mouse", "Computer Mouse", Replacer.ReplaceText,
{"Product"})
```

✅ Sort the table by OrderDate (newest first)

1. Click on the **OrderDate** column header.
2. Use the **Sort Descending** button in the toolbar.

M-code:

```m
КопироватьРедактировать
Table.Sort(Source, {{"OrderDate", Order.Descending}})
```

✅ How would you handle null values in the Price column?

- Replace them with a default value like 0:
  Select **Price → Transform → Replace Values** → Replace null with 0.

M-code:

```m
```

```
КопироватьРедактировать
Table.ReplaceValue(Source, null, 0, Replacer.ReplaceValue, {"Price"})
```

- Or filter them out:

```m
КопироватьРедактировать
Table.SelectRows(Source, each [Price] <> null)
```

☑ Write custom M-code to add a column calculating TotalSpent = Quantity * Price

```m
КопироватьРедактировать
Table.AddColumn(Source, "TotalSpent", each [Quantity] * [Price], type number)
```

☑ Group the table by CustID to show total spending per customer

1. Go to **Transform** tab → click **Group By**.
2. Group by: CustID
3. New column name: TotalSpent → Operation: **Sum** → Column: TotalSpent

M-code:

```m
КопироватьРедактировать
Table.Group(Source, {"CustID"}, {{"TotalSpent", each List.Sum([TotalSpent]),
type number}})
```

☑ Fix inconsistent date formats in OrderDate

Power Query handles this automatically if the column data type is set to **Date**:

- Select **OrderDate** → go to **Transform** → set Data Type to **Date**.
  It will interpret both 01/10/2023 and 2023-01-10 correctly.

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

1. Go to **Add Column → Conditional Column**.
2. Name: OrderValue
   If Price > 100 → then "High Value" → else "Normal"

M-code:

```m
КопироватьРедактировать
Table.AddColumn(Source, "OrderValue", each if [Price] > 100 then "High Value"
else "Normal")
```

✅ **Optimize the query to reduce refresh time**

- **Remove unused columns early**:
  Right after loading the source, remove columns you won't use.

```m
КопироватьРедактировать
Table.SelectColumns(Source, {"CustID", "OrderDate", "Quantity", "Price", "Product"})
```

- **Avoid unnecessary steps** (e.g., multiple sorts or type changes).
- **Filter early** to reduce data volume.
- **Use staging queries** for reuse and clarity.