1. What is the difference between "Merge" and "Append" in Power Query?

- **Merge** joins columns from two tables based on a **common key** (like SQL JOIN).
- **Append** stacks tables **vertically** (adds rows), useful for combining datasets with the same structure.

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2. How do you split a "Full Name" column into "First Name" and "Last Name"?

Use **Transform > Split Column > By Delimiter > Space**, then rename the new columns.

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3. What is "Pivot Columns" used for?

It **transforms row values into column headers**, summarizing data into a new table layout (e.g., Product names as columns).

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4. How do you undo a step in Power Query?

In the **Applied Steps** pane, click the **X** next to the step you want to remove.

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5. What is the purpose of "Reference" vs. "Duplicate" in queries?

- **Duplicate** creates a copy of the query and its data.
- **Reference** creates a **linked query** that reuses the original's output without duplicating the data.

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6. Merge Orders.csv and Customers.xlsx on CustID (inner join).

1. Load both datasets
2. Select **Orders** > Home > Merge Queries
3. Choose **Customers** as the second table
4. Select **CustID** in both → Join type: **Inner** → OK
5. Expand the Customer fields you need (Name, Email)

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7. Pivot the Product column to show total Quantity per product.

1. Select **Product** column
2. Click **Transform > Pivot Column**
3. For values: choose **Quantity**, and **aggregation: Sum**

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8. Append two tables with identical columns (e.g., Orders_Jan.csv + Orders_Feb.csv).

1. Load both tables
2. Go to **Home > Append Queries > Append as New**
3. Choose both tables to combine their rows

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9. Use "Fill Down" to replace nulls in the Email column with the previous value.

1. Select the **Email** column
2. Go to **Transform > Fill > Down**

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10. Extract the domain (e.g., "example.com") from the Email column.

Use **Transform > Extract Text After Delimiter > “@”**, or use M-code:

m

КопироватьРедактировать

= Table.AddColumn(Source, "Domain", each Text.AfterDelimiter([Email], "@"))

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11. Write M-code to merge queries dynamically based on a parameter (e.g., JoinType = "Inner").

Assuming JoinTypeParam is a text parameter ("Inner", "LeftOuter", etc.):

m

КопироватьРедактировать

= Table.NestedJoin(Orders, {"CustID"}, Customers, {"CustID"}, "CustomerData", JoinTypeParam)

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12. Unpivot a table with columns like "Jan_Sales," "Feb_Sales" into a "Month" and "Sales" format.

1. Select all month columns
2. Click **Transform > Unpivot Columns**
3. Rename the resulting columns to "Month" and "Sales"

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13. Handle errors in a custom column (e.g., division by zero) using try...otherwise.

m

КопироватьРедактировать

= Table.AddColumn(Source, "SafeDivide", each try [Sales] / [Quantity] otherwise 0)

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14. Create a function in Power Query to clean phone numbers (e.g., remove dashes).

1. **Home > Advanced Editor**, paste:

m

КопироватьРедактировать

```
let CleanPhone = (phone as text) as text =>
   Text.Select(phone, {"0".."9"})
in CleanPhone
```

2. Use **Invoke Custom Function** to apply it to your column.

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15. Optimize a query with 10+ steps—identify bottlenecks and simplify.

- **Remove unnecessary columns early**
- Combine multiple filtering steps into one
- Avoid changing data types repeatedly

- Use **Reference** instead of Duplicate where possible
- Disable **auto load** for intermediate queries