1. List three data sources Power BI can connect to.

- Microsoft Excel
- SQL Server Database
- Web (e.g., REST APIs or HTML tables)

2. What is the first step to import data into Power BI Desktop?

Click **"Home > Get Data"**, then select your data source (e.g., Excel, CSV, SQL).

3. How do you refresh imported data in Power BI?

Click **"Home > Refresh"** or schedule an automatic refresh via Power BI Service if published.

4. What file formats can Power BI import directly? (Name two.)

- `.csv` (Comma-separated values)
- `.xlsx` (Excel workbook)

5. What does the "Navigator" window show after selecting a data source?

It displays a **preview of tables/sheets** from the selected source so you can choose which ones to load or transform.

6. Import Sales_Data.csv and load only the "Product" and "Price" columns.

- Go to **Home > Get Data > Text/CSV > Sales_Data.csv**
- In the **Navigator window**, click **Transform Data**
- In Power Query, select only **Product** and **Price** columns
- Click **Close & Load**

7. How would you change OrderDate to a date format during import?

- In **Power Query**, select the **OrderDate** column
- Go to **Transform > Data Type > Date**

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8. What is the difference between "Load" and "Transform Data" in the import dialog?

Option	Description
Load	Directly imports the data as-is
Transform Data	Opens Power Query Editor to clean/edit data before loading

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9. Why might you see an error when connecting to a SQL database? (Name one reason.)

- **Incorrect server name or credentials**
  (e.g., authentication fails due to wrong username/password)

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10. How do you replace a data source after importing it?

- Go to **Home > Transform data > Data Source Settings**
- Click **Change Source**, then update the path or connection string.

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11. Write the M-code to import only rows where Quantity > 1.

```
let
    Source = Csv.Document(File.Contents("C:\Path\To\Sales_Data.csv"), [Delimiter=",",
Columns=5, Encoding=65001, QuoteStyle=QuoteStyle.None]),
    PromotedHeaders = Table.PromoteHeaders(Source, [PromoteAllScalars=true]),
    ChangedTypes = Table.TransformColumnTypes(PromotedHeaders, {{"Quantity",
Int64.Type}}),
    FilteredRows = Table.SelectRows(ChangedTypes, each [Quantity] > 1)
in
    FilteredRows
```

12. How would you change the data source if Sales_Data.csv changed?

- In Power Query, go to **Home > Data source settings > Change Source**
- Browse to the new CSV file path and select it.

13. Troubleshoot: Your CSV import fails due to a "mixed data type" error—how do you fix it?

- In **Power Query**, use **"Detect Data Type"** manually or explicitly set each column's type with **Transform > Data Type**.
- For problematic columns, use **"Replace Errors"** or convert to **Text** if inconsistent.

14. Connect to a live SQL database with parameters (e.g., filter by year).

Steps:

1. Go to **Home > Get Data > SQL Server**
2. Enter server/database info
3. Use **Query Parameters**:
   - Go to **Manage Parameters > New Parameter** (e.g., `Year = 2023`)
   - Use SQL query like:

SELECT * FROM Sales WHERE YEAR(OrderDate) = @Year

4.
5. Bind the Power Query parameter to the SQL query.

15. How would you automate data imports using Power BI and Power Automate?

- Create a **Power Automate flow** triggered on a schedule or event.
- Add **Power BI connector** to **refresh a dataset**.
- For example:
   - Trigger: "Recurrence – daily"
   - Action: "Refresh a dataset" (select your Power BI workspace and dataset)
- This keeps your reports updated automatically without manual refresh.