1) What is a primary key in a table?

A column that uniquely identifies each row in a table.

2) Name the two types of table relationships in Power BI.

One-to-many and Many-to-one.

3) How do you create a relationship between two tables in Power BI?

Open Model view, then drag a field from one table onto the matching field in the other table.

4) What is a "star schema"?

table.

A model where a central fact table is connected to multiple dimension tables like a star shape.

5) Which table is typically the fact table in a sales dataset?

The **Sales** table is typically the fact table.

6) Link Sales.csv to Customers.csv using CustomerID (one-to-many).

Create a relationship from Customers[CustomerID] (one) to Sales[CustomerID] (many) in Model view.
7) Why is ProductID in Sales.csv a foreign key?
Because it refers to the primary key of the Products

8) Fix a relationship error where ProductID has mismatched data types.

Change both columns to have the same data type (e.g. Whole Number) in Power Query or Model view.

- 9) Explain why a star schema improves performance. It reduces complex joins and simplifies relationships, so Power BI can calculate faster.
- 11) Optimize a model with circular relationships how would you resolve it?

Remove or change one of the relationships, or add a bridge table, or disable bi-directional filtering.

12) Create a role-playing dimension for OrderDate and ShipDate.

Duplicate the Date table twice and link one copy to OrderDate and the other to ShipDate.

13) Handle a many-to-many relationship between Customers and Products.

Use a bridge table (e.g., CustomerProduct) to break many-to-many into two one-to-many relationships.

14) Use bidirectional filtering sparingly — when is it appropriate?

When filtering needs to flow both ways for specific report logic, such as complex slicers or bridges.

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ProductName	Year	Quarter	Month	Day	ProductID	Sum of totalsales
Laptop	2023	Qtr 1	January	5	1	2610
Mouse	2023	Qtr 1	January	10	2	6525
Keyboard	2023	Qtr 1	January	15	3	1305
Total						10440



Broken RI Count	Sum of totalsales
	10440