

POWER BI

PL-300

PART -5

Question 104:

You have a CSV file that contains user complaints. The file contains a column named **Logged**, which stores the date and time of each complaint in the format: **2018-12-31 at 08:59**.

You need to analyze complaints by the logged date and use a built-in date hierarchy.

What should you do?

Options:

- A. Create a column by example that starts with **2018-12-31** and set the data type of the new column to **Date**
- B. Create a column by example that starts with **2018-12-31**
- C. Apply a transformation to extract the last 11 characters of the Logged column
- D. Add a conditional column that outputs **2018** if the Logged column starts with **2018** and set the data type of the new column to **Whole Number**

Answer:

- A. Create a column by example that starts with **2018-12-31** and set the data type of the new column to **Date**

Explanation:

- The **Logged** column contains both date and time in the format **YYYY-MM-DD at HH:MM**.
- To use a built-in **date hierarchy**, we need to **extract only the date** (YYYY-MM-DD) and convert it to **Date** type.
- **Creating a column by example** allows Power Query to recognize the pattern and extract the correct data.
- **Setting the data type to Date** ensures it can be used in the **date hierarchy** for analysis.

Why Other Options Are Incorrect?

B. Create a column by example that starts with **2018-12-31** – This only extracts the date but does not convert it into the **Date** data type, which is necessary for the date hierarchy.

C. Apply a transformation to extract the last 11 characters – The last 11 characters include "at HH:MM", which contains text ("at"), making it invalid for date conversion.

D. Add a conditional column that outputs **2018** if the Logged column starts with **2018** – This only extracts the **year** as a **whole number**, which is not useful for date hierarchy analysis.

Question 105:

You have a **Power BI data model** that contains a table named **Employees** with the following columns:

• Employee Name
• Email Address
• Start Date
• Job Title

You are implementing **dynamic row-level security (RLS)**.

You need to create a **table filter** that ensures:

- Users can see only their own employee data.**
- The DAX expression must work in both Power BI Desktop and the Power BI service.**

Options:

- A. [Email Address] - USERNAME()
- B. [Employee Name] - USERPRINCIPALNAME()
- C. [Employee Name] = USERNAME()
- D. [Email Address] = USERPRINCIPALNAME()

Correct Answer:

- D. [Email Address] = USERPRINCIPALNAME()**

Explanation:

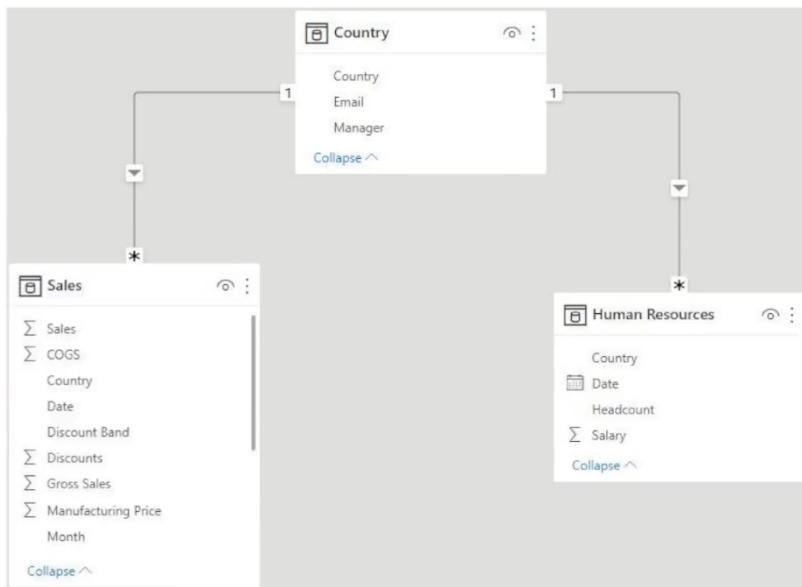
- **Dynamic RLS** restricts data access based on the logged-in user.
- The function **USERPRINCIPALNAME()** returns the **email address of the current user**, which matches the **Email Address** column in the **Employees** table.
- In **Power BI Service**, users log in with their email, so filtering on [Email Address] = USERPRINCIPALNAME() ensures they can only see their own data.
- **USERNAME()** sometimes returns only the domain username (domain\user), which may not match the email in the Employees table, making **USERPRINCIPALNAME()** the better choice.

Why Other Options Are Incorrect?

- ✗ A. [Email Address] - USERNAME() – Incorrect syntax (- is not a valid comparison operator).
- ✗ B. [Employee Name] - USERPRINCIPALNAME() – Incorrect syntax (- is not a valid comparison operator), and **employee names are not unique**, making it unreliable for filtering.
- ✗ C. [Employee Name] = USERNAME() – USERNAME() returns a domain name or email, but **Employee Name** contains full names, which do not match usernames directly.

Question 106:

You have the Power BI data model shown in the following exhibit.



The Country table contains the following data.

Country	Manager	Email
USA	CFO	cfo@msn.com
France	Phillipe	phillipe@msn.com
Brazil	Juan	juan@msn.com
Singapore	Srini	srini@msn.com

You create two row-level security (RLS) roles named Manager and CFO.

You plan to publish the dataset to the Power BI service.

You need to create DAX expressions for the RLS filters. The solution must meet the following requirements:

- Each manager must see only the data in the Sales and Human Resources tables for their own country.
- The CFO must be prevented from seeing the data in the Human Resources table.
- The CFO must see the sales data of all countries.

How should you complete the DAX expressions to meet the requirements? To answer, drag the appropriate expressions to the correct targets. Each expression may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Table Filter DAX Expression	Answer Area
[Country] = "USA"	Human Resources: <input type="text"/>
[Email] = userprincipalname()	Country: <input type="text"/>
[Manager] = "CFO"	
False()	
True()	

Answer:

Human Resources - False ()

Country - [Email] = USERPRINCIPALNAME ()

Solution for Row-Level Security (RLS) in Power BI

Need to create **two RLS roles**:

1. **Manager Role** → Should only see **Sales** and **Human Resources** data for their **own country**.
2. **CFO Role** → Should **not** see **Human Resources** data but should see **Sales** data for **all countries**.

Explanation:

For CFO Role:

- The **CFO should not see the Human Resources table**, so applying FALSE() ensures that **no data is visible** from this table.
- The **CFO should see all sales data**, which means **no filter should be applied to the Country table**.

For Manager Role:

- The **Country table** is filtered based on **[Email] = USERPRINCIPALNAME()**, ensuring that **each manager sees only their own country's data**.
- Since **Sales and Human Resources** tables are connected to Country, the filter **propagates** to them, restricting access to only relevant data.

Final Answer:

1 Human Resources → FALSE() (For CFO Role)

2 Country → [Email] = USERPRINCIPALNAME() (For Manager Role)

This setup ensures that:

- ✓ Managers **see only their country's data in Sales & Human Resources.**
- ✓ The CFO **sees all sales data but no human resources data.**

Question 107:

Question:

You have a Power BI data model that imports data from a Microsoft Excel spreadsheet.

You use Power Query to load a query that contains both renamed and custom columns.

Later, you attempt to reload the query and receive the following error message:

"Expression.Error: The column 'Category' of the table wasn't found."

What are two possible causes of the error? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

Options:

- A. The column was removed from the source file.
- B. The column was renamed in the source file.
- C. The file is no longer in the specified location.
- D. The data type of the column was changed.

Answer:

- A. The column was removed from the source file.
- B. The column was renamed in the source file.

Solution:

The error "**Expression.Error: The column 'Category' of the table wasn't found.**" occurs when Power Query cannot locate a column it expects.

- **Option A (Correct):** If the '**Category**' column is deleted from the source Excel file, Power Query cannot find it, causing this error.
- **Option B (Correct):** If the column was **renamed** in Excel, Power Query still looks for the old name and fails to locate it.

Why Other Options Are Incorrect:

✗ **Option C:** If the file was missing or moved, Power BI would show a "**File Not Found**" or "**Data source not found**" error, not a missing column error.

✗ **Option D:** Changing a column's data type (e.g., from text to number) **does not** remove it, so Power Query would give a type conversion error rather than a missing column error.

Question 108:

Question:

You have a Power BI model that contains a table named **Sales**. The **Sales** table contains the following columns:

• Order Line ID
• Product ID
• Unit Price
• Order ID
• Quantity

Orders are uniquely identified by using the **Order ID** and can have multiple order lines. Each order line within an order contains a different **Product ID**.

You need to write a **DAX measure** that counts the number of unique orders.

Options:

- A. COUNT('Sales'[Order ID])
- B. COUNTA('Sales'[Order ID])
- C. COUNTROWS('Sales')
- D. DISTINCTCOUNT('Sales'[Order ID])

Answer:

D. DISTINCTCOUNT('Sales'[Order ID])

Solution:

Since an **order ID** can appear multiple times in the **Sales** table (because a single order can have multiple products), we need to count only **unique orders**. The best way to achieve this is by using the **DISTINCTCOUNT** function.

- **Option A (COUNT) (Wrong):** This counts the total number of rows in the **Order ID** column, including duplicates. Since an order can have multiple lines, it will overcount the number of orders.
- **Option B (COUNTA) (Wrong):** Similar to COUNT, COUNTA counts non-blank values, which does not ensure unique order counting.

- **Option C (COUNTROWS) (Wrong):** This counts **all rows** in the Sales table, meaning it would count each order line separately, not each unique order.
- **Option D (DISTINCTCOUNT) (Correct):** This counts the **unique** values in the **Order ID** column, giving the correct number of orders.

Question 109:

You are creating a Power BI model in Power BI Desktop.

You need to create a calculated table named Numbers that will contain all the integers from - 100 to 100.

How should you complete the DAX calculation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Numbers =

▼	▼
GENERATE	(100, 1, 200)
GENERATEALL	(-100, 100, 1)
GENERATESERIES	(-1, -100, 100)

Answer:

Numbers = GENERATESERIES(-100, 100, 1)

Explanation:

To create a **calculated table** that contains all integers from **-100 to 100**, the best function to use is **GENERATESERIES**.

- **GENERATESERIES(start, end, increment)** creates a table with values starting from the **first argument** (-100), ending at the **second argument** (100), and increasing by the **third argument** (1).
- This ensures all whole numbers in the range **-100 to 100** are included.
- The output is assigned to the **Numbers** table using the = operator.

Question 110:

Question:

You have a **Power BI data model** that contains a table named **Employees**. The table has the following columns:

- **Employee Name**
- **Email Address**
- **Start Date**
- **Job Title**

You are implementing **dynamic row-level security (RLS)**.

You need to create a **table filter** to meet the following requirements:

- Users must see only **their own employee data**.
- The **DAX expression** must work in both **Power BI Desktop and the Power BI service**.

Options:

- A. [Employee Name] = USERPRINCIPALNAME()
- B. [Email Address] = USERNAME()
- C. [Employee Name] = USERNAME()
- D. [Email Address] = USERPRINCIPALNAME()

Answer:

- D. [Email Address] = USERPRINCIPALNAME()

Explanation:

To implement **dynamic row-level security (RLS)** in Power BI, we use the **USERPRINCIPALNAME()** function, which returns the logged-in user's **email address** in both **Power BI Desktop and Power BI Service**.

- Since the **Email Address** column uniquely identifies each user, we should compare it with **USERPRINCIPALNAME()**.
- The correct **DAX filter** ensures that users only see rows where their **email matches** the logged-in user's email.

Correct DAX Expression:

[Email Address] = USERPRINCIPALNAME()

Why Other Options are Incorrect:

X A. [Employee Name] = USERPRINCIPALNAME() → Wrong

- USERPRINCIPALNAME() returns the **email address**, but we are comparing it with the **Employee Name** column, which is incorrect.

X B. [Email Address] = USERNAME() → Wrong

- USERNAME() may return just the domain username (DOMAIN\User) instead of the **full email address**, causing mismatches in Power BI Service.

X C. [Employee Name] = USERNAME() → Wrong

- This tries to match **Employee Name** with USERNAME(), which doesn't work since USERNAME() usually returns a **domain-based login name**, not the actual employee's name.

Question 111:

Question:

You have a **Power BI model** that contains a table named **Date**. The **Date table** contains the following columns:

• Date
• Fiscal Year
• Fiscal Quarter
• Month Name
• Calendar Year
• Week Number
• Month Number
• Calendar Quarter

You need to **create a calculated table** based on the **Date table**. The **calculated table** must contain **only unique combinations** of values for:

- Calendar Year**
- Calendar Quarter**
- Month Name**

Options:

- A. ADDCOLUMNS
- B. CALCULATE
- C. SUMMARIZE
- D. DATATABLE

Answer:

- C. SUMMARIZE**

Explanation:

The **SUMMARIZE** function is used to create a new **calculated table** with **grouped unique combinations** of selected columns. Since the requirement is to generate a table with **only distinct values** for Calendar Year, Calendar Quarter, and Month Name, SUMMARIZE is the correct function.

Correct DAX Expression:

NewTable = SUMMARIZE(Date, Date[Calendar Year], Date[Calendar Quarter], Date[Month Name])

- This groups data by Calendar Year, Calendar Quarter, and Month Name, ensuring each combination appears only **once** in the new table.
- It **removes duplicate entries** while preserving the relevant fields.

Why Other Options are Incorrect:

✗ A. ADDCOLUMNS → Wrong

- ADDCOLUMNS is used to add **new calculated columns** to an existing table, but it **does not remove duplicates**.

✗ B. CALCULATE → Wrong

- CALCULATE is used for modifying **filter context** and is mainly used in **measures, not calculated tables**.

✗ C. DATATABLE → Wrong

- DATATABLE creates a table **manually** by specifying column names and values. It **does not transform existing tables**.

Question 112:

You have a Power BI model that contains the following data.

Table name	Column name	Description	Data type
Date	Date	Calendar date	Date
	Month	Calendar month	Text
	Year	Calendar year	Integer
Sales	Sale	Sales value	Decimal number
	Date	Calendar date	Date

You have a **Power BI model** that contains the following data:

- Date Table** (Contains a **Date** column)
- Sales Table** (Contains a **SalesAmount** column)

The **Date table** is related to the **Sales table** using the **Date** column.

You need to **create a calculated table** that contains:

- **A row for each year**
- **A column that contains the total sales per year**

Answer Area

SalesSummary=

The screenshot shows the Power BI DAX formula builder. On the left, there is a dropdown menu with options: ROLLUP, SELECTCOLUMNS, and SUMMARIZE. On the right, there is another dropdown menu containing three items: Date[Date], Date[Year], and Sales[Date]. To the right of these dropdowns is the DAX code: (Sales, , "Sales", SUM (Sales[Sale]))

Answer:

- A. **SUMMARIZE**
- B. **DATE[YEAR]**

Explanation:

The question pertains to creating a calculated table in Power BI that includes a row for each year and a column displaying the total sales for that year. To achieve this, the Data Analysis Expressions (DAX) function **SUMMARIZE** is appropriate. This function returns a summary table for the requested groups, applying specified aggregations.

SalesSummary = SUMMARIZE(Sales, Date[Year], "Total Sales", SUM(Sales[SalesAmount]))

Explanation:

- **SUMMARIZE Function:** This function groups the Sales table by the Date[Year] column.
- **Grouping by Date[Year]:** This ensures that the resulting table has one row per year.
- **Defining "Total Sales":** For each year, the expression calculates the sum of Sales[SalesAmount], resulting in a column named "Total Sales" that contains the total sales for each year.

Question 112:

You use Power Query Editor to import and preview sales data from the years 2020 and 2021 in a Microsoft Excel file as shown in the following exhibit.

A B C Month	1 2 3 2020	1 2 3 2021	
● Valid	100%	100%	
● Error	0%	0%	
● Empty	0%	0%	
	12 distinct, 12 unique		12 distinct, 12 unique
January	4400	4908	
February	2988	3722	
March	5230	4815	
April	4500	5031	
May	3850	4354	
June	6215	6019	
July	2507	3922	
August	3605	3740	
September	4680	4850	
October	3955	4612	
November	6510	6480	
December	5200	5155	

You need to shape the query to display the following three columns:

- Month
- Sales
- Year

What should you select in Power Query Editor?

- A.Merge columns
- B.Transpose
- C.Unpivot columns
- D.Pivot column

Answer:

C. UNPIVOT COLUMNS

Question 113:

You are creating a Power BI model to analyze inventory.

You load data into three tables named Date, Product, and Inventory. The Inventory table relates to the Date and Product tables by using one-to-many relationships.

Inventory data is recorded daily with no exceptions. The correct inventory quantity for a given product in a month is the last recorded value for that month.

You need to write a DAX measure that will show the correct inventory value when a user analyzes inventory by year, month, or date.

How should you complete the measure?

Answer Area

Last Inventory Count =

```
SUM ( 'Inventory'[QuantityAvailable] ),  
      ( 'Date'[Date] )  
      LastDate  
      LastNonBlankValue  
      Max
```

Answer:

- A. CALCULATE
- B. LASTDATE

Correct DAX Measure:

Last Inventory Count =

```
CALCULATE(  
            SUM(Inventory[QuantityAvailable]),  
            LASTDATE('Date'[Date])  
        )
```

Explanation:

To ensure the measure retrieves the last recorded inventory value for a given time period, we use the following approach:

- 1 **CALCULATE Function** → Modifies the filter context to apply the required condition.
- 2 **LASTDATE('Date'[Date])** → Retrieves the last date within the selected time frame (year, month, or date).
- 3 **SUM(Inventory[QuantityAvailable])** → Aggregates the inventory quantity on the last recorded date.

How it works:

- If the user selects a specific month, the measure finds the last date in that month and returns the inventory on that day.
- If the user selects a specific year, it retrieves the last inventory count for each month in that year.
- If analyzed by date, it simply returns the inventory for that day.

Question 114:

You have a **Power BI report** that imports:

- A **date table**
- A **sales table** (which has three date foreign keys: **Due Date**, **Order Date**, **Delivery Date**)

You need to **analyze sales over time based on all three dates simultaneously**.

Proposed Solution:

- 1 Rename the **date table** as **Due Date**.
- 2 Use **DAX** to create **Order Date** and **Delivery Date** as **calculated tables**.
- 3 Create **active relationships** between the **Sales table** and **each date table**.

Options:

- A. Yes
- B. No

Answer:

 B. No

Explanation:

This solution **does not meet the goal** because:

- Power BI allows only one active relationship between two tables.
 - If you try to create **active relationships** between the **Sales table** and **all three date tables**, Power BI will **disable two relationships** (making them inactive).

A better approach is to use **USERELATIONSHIP()**

- Instead of creating separate calculated tables, keep a **single date table** and create **inactive relationships** for the **Order Date** and **Delivery Date**.
- Then, use **USERELATIONSHIP()** in measures to **activate the required relationship dynamically**.

Question 115:

You are creating a Power BI report that will show the number of current employees over time. The report will use **Import storage mode** for all tables.

The employment data will be imported from **Azure SQL Database** in a **monthly snapshot**. The data will be stored in a table named **Headcount** and will contain the following:

- One row per employee for each month** the employee is employed.
- In each row, a **date key** that shows the **first day of the month** of each snapshot.

You have a related **date table** that contains dates for the years **2020 to 2030**.

You need to create a **semi-additive DAX measure** that will return the **count of employees for the last available date** in a year, quarter, or month.

Answer Area

```
Headcount =  
Calculate  
    (ApproximateDistinctCount('Headcount'[EmployeeKey]),  
     (CountRows('Headcount'),  
      (Max('Headcount'[EmployeeKey]),  
       (Sum('Headcount'[EmployeeKey]),  
        FirstDate('Headcount'[DateKey]))))  
     LastDate('Date'[Date]))  
     LastDate('Headcount'[DateKey]))  
     LastNonBlank('Date'[Date])))
```

Answer:

A. **CALCULATE(COUNTROWS(Headcount), LASTDATE(Headcount[DateKey]))**

Solution:

This scenario requires a **semi-additive measure** because we need to **count employees** at the last available date for each period (year, quarter, or month). The correct approach is:

- Use COUNTROWS(Headcount)** to count the number of rows (each row represents an employee snapshot for a given month).
- Use LASTDATE(Headcount[DateKey])** to ensure that the measure retrieves data only from the last available snapshot in the filtered period.

3. **Wrap it in CALCULATE()** to modify the filter context dynamically based on the time period selected in the report.

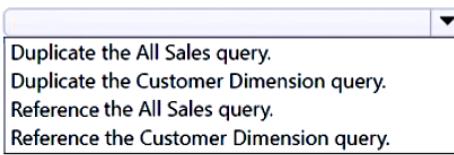
Question 116:

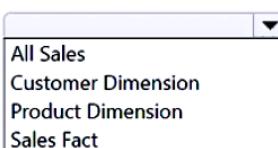
You have a query named **All Sales** that imports sales data into a Power BI model.

You plan to create a **star schema** by separating columns into separate queries and performing further transformations. The solution must meet the following requirements:

- **Use All Sales as the source** for three other queries named **Sales Fact, Product Dimension, and Customer Dimension**.
- **Minimize maintenance effort.**

Answer Area

To create Sales Fact: 

Clear Enable data load for: 

A. REFERENCE THE ALL SALES QUERY

B. ALL SALES

Question 117:

You have a Power BI model that contains the following data.

Table name	Column name	Description	Data type
Date	Date	Calendar date	Date
	Month	Calendar month	Text
	Year	Calendar year	Integer
Sales	Sale	Sales value	Decimal number
	Date	Calendar date	Date

- The **Date** table relates to the **Sales** table using the **Date** column.

- The model contains the following DAX measure:

Total Sales = SUM(Sales[Sale])

You need to create another measure named Previous Quarter to display the sales one quarter before the selected period.

Which DAX calculation should you use?

- A. `CALCULATE ([Total Sales], DATEADD (Date[Date], -1, QUARTER))`
- B. `CALCULATE ([Total Sales], DATESQTD (Date[Date]))`
- C. `TOTALQTD ([Total Sales], Date[Date])`
- D. `CALCULATE ([Total Sales], PARALLELPERIOD (Date[Date], 1, QUARTER))`

Answer:

A. `CALCULATE ([Total Sales], DATEADD (Date[Date], -1, QUARTER))`

Solution

- **DATEADD(Date[Date], -1, QUARTER)** shifts the date context **exactly one quarter back** and retrieves sales for that period.
- **CALCULATE modifies the filter context**, ensuring that the measure calculates the correct **previous quarter's** sales.
- **DATEADD is dynamic**, meaning it works efficiently across different levels of time aggregation (month, quarter, year).
- This approach is preferred because it ensures accuracy when analyzing past periods.

Why Other Options Are Incorrect:

Option B: DATESQTD(Date[Date])

- This function returns **quarter-to-date values for the current quarter**, not the previous quarter.
- It does not shift the time context backward, making it unsuitable for this requirement.

Option C: TOTALQTD([Total Sales], Date[Date])

- This function calculates the **quarter-to-date total for the current period**, but it does not fetch sales from the previous quarter.

Option D: PARALLELPERIOD(Date[Date], 1, QUARTER)

- **PARALLELPERIOD** works similarly to **DATEADD** but lacks flexibility in dynamic filtering.
- It does not work well when switching between different time granularities (month, quarter, year).
- **DATEADD** is generally preferred because it can handle different date hierarchies better.

Question 118:

You are reviewing a Power BI data model.

You have a **calculated table** that has the following DAX definition:

ProductList = INTERSECT (ProductsGroupA, ProductsGroupB)

You need to identify the results of the DAX expression.

Options:

- A. all the rows in **ProductsGroupB** that have a matching row in **ProductsGroupA**
- B. all the rows in **both tables**
- C. all the rows in **ProductsGroupA** that have a matching row in **ProductsGroupB**
- D. all the rows in **ProductsGroupA** that have **no matching row** in **ProductsGroupB**

Answer:

Option C:

All the rows in **ProductsGroupA** that have a matching row in **ProductsGroupB**.

Solution Explanation:

- **INTERSECT(Table1, Table2)** returns **only the common rows** present in **both tables** based on **all matching column values**.
- This means that **only rows that exist in both** ProductsGroupA **and** ProductsGroupB **will be included in the result**.
- If a row exists in **only one table**, it will **not** be included in the output.
- This function works like an **INNER JOIN** in SQL but requires **exact row matches** in both tables.

Why Other Options Are Incorrect:

Option A:

- This option suggests that only rows from ProductsGroupB that match in ProductsGroupA are returned.
- **INTERSECT returns rows that exist in both tables, regardless of which table is first.**
- So, this description is **partially correct**, but the answer is **not limited** to ProductsGroupB.

X Option B:

- This option suggests that **all rows from both tables** are returned.
- **INTERSECT does not return a union** (which would be done by UNION() in DAX).
- **It only returns common rows** that exist in **both tables**.

X Option D:

- This option describes an **EXCEPT() operation**, not an **INTERSECT**.
- EXCEPT(ProductsGroupA, ProductsGroupB) would return rows in ProductsGroupA **that are not in** ProductsGroupB.

Question 119:

You have a Power BI data model that contains two tables named **Sales** and **Date**.

The **Sales** table contains three measures:

- **Order Quantity**
- **Product Cost**
- **Sales Amount**

You need to create a visual that displays these measures properly.

	2020	2021	2022	2023	Total
Order Quantity	12036	60974	128956	72810	274776
Product Cost	10,047,701.66	27,603,232.56	38,619,703.29	20,987,270.44	97,257,907.95
Sales Amount	11,928,555.52	30,516,891.80	42,895,109.50	24,468,717.39	109,809,274.20

Options:

- A. Columns
- B. Rows
- C. Values
- D. Drill through

Answer:

✓ Option C: Values

Solution Explanation:

- In Power BI, the **Values** section of a visual is used to display **aggregated measures** like **sum, average, count, etc.**
- Since **Order Quantity, Product Cost, and Sales Amount** are **measures**, they should be placed in the **Values** field.
- This ensures that the numerical calculations appear correctly in the visual.
- If you are using a **matrix or table visual**, the **Rows** section should contain categories like **Date or Product Name**, while the **Values** section holds the numeric measures.

Why Other Options Are Incorrect:

✗ Option A: Columns

- In a **table or matrix visual**, the **Columns** section is used for categorical data (e.g., **product categories, time periods**).
- Measures like **Sales Amount** should not be placed in **Columns** as they are numerical values meant to be **aggregated**.

✗ Option B: Rows

- The **Rows** section is typically used for **dimension attributes** (e.g., **Product Name, Customer, or Date**).
- Measures like **Order Quantity** should not be placed in **Rows** because they should be **summed or calculated**, not categorized.

✗ Option D: Drill through

- The **Drill-through** feature is used to filter data for a **specific category** when users right-click a visual and select drill-through options.
- It is **not meant for displaying measures** directly.

Question 120:

You have Power BI report that contains the fields shown in the following exhibit.

The screenshot shows the 'Build visual' interface in Power BI. On the left, there's a toolbar with various visualization icons. Below it, the 'X-axis' dropdown is set to 'Year'. The 'Y-axis' dropdown contains two items: 'Sum of Sales Amount' and 'Sum of Product Cost'. To the right, under the heading 'Data', there's a search bar and a tree view of data fields. The 'SalesDetails' node is expanded, showing several fields like CustomerKey, DueDateKey, Extended Amount, etc. Two specific measures are selected: \sum Product Cost and \sum Sales Amount.

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Answer Area

To replace all the implicit DAX measures used in the visual, [answer choice] must be created.

one explicit measure
two explicit measures
three explicit measures

To change how the Product Cost field is aggregated in additional visuals, you must change the [answer choice].

data category
data type
DAX expression
Summarization setting

Answer:

- A: Two explicit measures
- B: Summarization setting

Question 121:

You have a **Power BI model** that contains a table named **Employees** with the following columns:

• Employee ID
• First Name
• Last Name
• Department
• Salary

Each employee is uniquely identified by **Employee ID**.

You need to create a **DAX measure** that calculates the **average salary** of all employees **in the Sales department**.

Options:

- A. DISTINCTCOUNT('Employees'[Salary])
- B. CALCULATE(DISTINCTCOUNT('Employees'[Salary]), 'Employees'[Department] = "Sales")
- C. CALCULATE(AVERAGE('Employees'[Salary]), 'Employees'[Department] = "Sales")
- D. AVERAGE('Employees'[Salary])

Answer:

Option C: CALCULATE(AVERAGE('Employees'[Salary]), 'Employees'[Department] = "Sales")

Solution Explanation:

- The **CALCULATE** function is used to **modify the filter context** of an expression.
- **AVERAGE('Employees'[Salary])** computes the **average salary** across all employees.
- '**Employees'[Department] = "Sales"** filters the calculation **only for employees in the Sales department**.
- This ensures that the measure returns the **average salary for Sales employees only**.

Why Other Options Are Incorrect:

Option A: DISTINCTCOUNT('Employees'[Salary])

- **DISTINCTCOUNT** counts **unique salary values**, not the **average salary**.

**✗ Option B: CALCULATE(DISTINCTCOUNT('Employees'[Salary]),
‘Employees’[Department] = “Sales”)**

- This calculates the **count of unique salary values** in the Sales department, **not the average**.

✗ Option D: AVERAGE(‘Employees’[Salary])

- This calculates the **average salary across all employees, without filtering for Sales**.

Question 122:

You use **Power Query Editor** to preview a query that contains sales order data with the following columns:

- **Tax Amount**
- **Sales Order ID** (uniquely identifies each sales order)
- **Freight Amount** (sometimes null)
- **Subtotal Amount**
- **Total Item Quantity** (always populated)

The **Tax Amount** and **Freight Amount** columns **sometimes contain null values** when there is no associated amount.

You need to query the data to identify the following **metrics by month**:

- **The average item quantity per order**
- **The average freight amount per order**
- **The maximum item quantity per order**

Options:

- In the **Total Item Quantity** column, replace the null values with 0.
- In the **Tax Amount** column, remove rows that contain null values.
- In the **Freight Amount** column, remove rows that contain null values.
- In the **Freight Amount** column, replace the null values with 0.

Answer:

- ✓ Option D: In the Freight Amount column, replace the null values with 0.**

Solution Explanation:

- **Freight Amount** represents the shipping cost of an order. If it's **null**, it means there was no freight charge for that order.
- When calculating **average freight per order**, replacing nulls with **0** ensures that the missing values are treated as **zero cost** instead of being ignored.
- This prevents the **average calculation from being skewed** due to missing values.
- The **Total Item Quantity** column is always populated, so there is no need to modify it.

Why Other Options Are Incorrect:

✗ Option A: Replace nulls with 0 in the Total Item Quantity column

- **Incorrect** because the column is **always populated** and does not contain null values.

✗ Option B: Remove rows with null values in the Tax Amount column

- **Incorrect** because removing rows **reduces the dataset**, which might affect the calculations of **average and maximum values**.
- Tax Amount is **not needed for the required metrics**.

✗ Option C: Remove rows with null values in the Freight Amount column

- **Incorrect** because removing rows with **null Freight Amount** would **exclude valid orders** that just had no shipping cost.
- This would lead to **incorrect averages** as only orders with a freight charge would be included.

Question 123:

You use Power Query Editor to import three tables named Customers, Address, and Country. In the source system, not every customer has a related address, but every address has a related country.

You need to merge all the tables into a single query. The solution must optimize query refresh performance.

Which type of join should you use for each merge operation? To answer, drag the appropriate join types to the correct operations. Each join type may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

Join types	Answer Area
Inner	Join Customers with Address: []
Left anti	
Left outer	Join Address with Country: []
Right anti	
Right outer	

Answer:

- A: Left outer
- B: Inner

Question 124:

Question:

You have a **Power BI semantic model** that contains four queries:

- **Query1** loads **customer data** into the model and is referenced by **Query2, Query3, and Query4**.
- You discover that **data refresh for the model is slow**.
- You need to **improve data refresh time while minimizing costs**.

Options:

- A. Run the **Table.Buffer** function in **Query1**.
- B. Duplicate **Query1** to all the other queries.
- C. Reconfigure **Query1** as a **dataflow entity**.
- D. From the **Power BI Admin portal**, increase the **Capacity settings**.

Answer:

- Option A: Run the **Table.Buffer** function in **Query1**.

Solution Explanation:

- **Table.Buffer(Query1)** **caches** **Query1's results in memory**, preventing **multiple recalculations** when it is referenced by **Query2, Query3, and Query4**.
- This significantly **improves performance** by **reducing redundant processing**.

- It is a **low-cost solution** as it does **not require additional infrastructure or Power BI Premium features**.

Why Other Options Are Incorrect:

✗ Option B: Duplicate Query1 to all the other queries

- **Incorrect** because duplicating Query1 **creates multiple copies** of the same data, **increasing memory usage** and making refresh **even slower**.

✗ Option C: Reconfigure Query1 as a dataflow entity

- **Incorrect** because dataflows **improve data sharing and reuse** but **introduce additional costs** (Power BI Premium or Pro licensing).
- While dataflows can help, **Table.Buffer is a simpler and more cost-effective solution**.

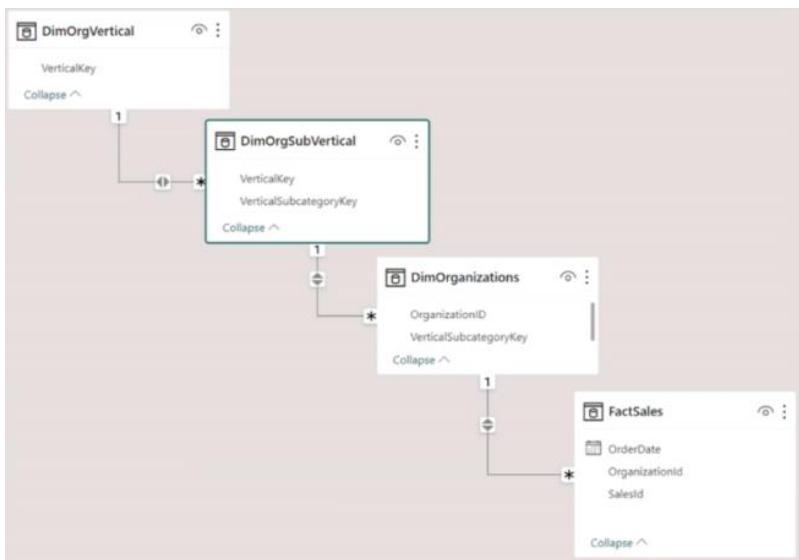
✗ Option D: Increase Capacity settings in the Power BI Admin portal

- **Incorrect** because increasing capacity is **expensive** and should only be considered if **performance issues persist after optimization**.
- Optimizing queries first is a **better approach** before upgrading hardware or capacity.

Question 125:

You have an organization dimension named DimOrganizations.

You have four related tables as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Answer Area

The tables represent a [answer choice] dimension.

▼
degenerate
junk
role-playing
snowflake

[answer choice] is the only table that supports a hierarchy model for DimOrgVertical.

▼
DimOrganizations
DimOrgSubVertical
FactSales

Answer:

A: Snowflake

B: Dimorgsubvertica;

Question 126:

You have a Power BI semantic model that contains a table named Opportunity.

The Opportunity table contains a column named Qualification. The Qualification column contains values between 0 and 1.

You need to build a new measure to score the opportunities on a scale of low, medium, and high.

How should you complete the DAX formula? To answer, select the appropriate options in the answer area.

Answer Area

```
Sales Qualification =  
IF(  
    'Opportunity'[Qualification] < 0.5,  
    "Low",  
    ELSE  
    IF  
    IF.EAGER  
    OR  
    'Opportunity'[Qualification] > 0.7,  
        HIGH  
        LOW  
        MEDIUM  
        HIGH  
        LOW  
        MEDIUM  
)  
)
```

Answer:

A: IF.EAGER

 **B: HIGH**

 **B: MEDIUM**

Question 127:

You have a **Power BI semantic model** that connects to a **streaming data source**. The data source is **updated frequently**.

You need to create a Power BI report that meets the following requirements:

- **Supports real-time analytics**
- **Minimizes performance impact on the data source**
- **Displays the most recent data without performing a data refresh**

Which **connectivity mode** should you use for the dataset?

Options:

- A. DirectQuery mode
- B. Import mode
- C. LiveConnect mode
- D. Push mode

Answer:

 **Option A: DirectQuery mode**

Solution Explanation:

- **DirectQuery mode** allows Power BI to **query the data source in real time** without storing data in memory.
- It ensures that the **latest data is always retrieved** whenever the report is accessed.
- Since DirectQuery sends **DAX queries to the data source**, it **reduces performance impact** by only fetching necessary data.
- This makes it ideal for **frequently updated data sources** where real-time analysis is required **without manual refreshes**.

Why Other Options Are Incorrect:

 **Option B: Import mode**

- **Incorrect** because Import mode **stores a snapshot** of the data and requires **scheduled refreshes** to update.
- This **prevents real-time updates**, making it unsuitable for **streaming data sources**.

X Option C: LiveConnect mode

- **Incorrect** because LiveConnect is used with **Analysis Services** or **Power BI datasets** and **does not work directly with external streaming data sources**.
- It is not a connectivity mode for **real-time querying of external data**.

X Option D: Push mode

- **Incorrect** because Push mode is designed for **Power BI Streaming Datasets**, where **data is sent into Power BI from external sources**.
- This is useful for **custom real-time dashboards**, but **not for querying external data sources directly**.

Question 128:

You have a Power BI semantic model that contains a table named Item. The Item table contains a column named Quantity.

You need to create a DAX query that meets the following requirements:

- The rank of items must be calculated according to the values in Quantity.
- Ranking must NOT be skipped if two or more items have the same value in Quantity.
- If an item is unfiltered, the total of Quantity must display a blank value.

How should you complete the DAX formula? To answer, select the appropriate options in the answer area.

Answer Area

```
Item Quantity Rank =  
IF(  
    CALCULATE  
    HASONEVALUE  
    SELECTEDVALUE  
    WINDOW  
    RANKX(  
        ALL('Item'[Item]),  
        [Quantity],  
        ,  
        ,  
        DEFAULT  
        DENSE  
        FIRST  
        SKIP  
    )  
)
```

Answer:

- A. HASONEVALUE.
- B. DENSE.

Question 129:

You use Power Query Editor to pull data from a Microsoft SharePoint Online list.

You plan to use Advanced Editor to build a Power Query M formula language query.

You need to create a query that loads the data, expands a column named location, and hides a column named CountryOrRegion from the dataset.

How should you complete the query? To answer, select the appropriate options in the answer area.

Answer Area

```
let
    Source = SharePoint.Tables("https://contoso.sharepoint.com", [Implementation="2.0", ViewMode="All"]),
    #"3b73bb0e-9677-425e-8296-0f2a756be816" = Source[[Id="3b73bb0e-9677-425e-8296-0f2a756be816"]][Items],
    #"Expanded Location" =
        Table.ExpandListColumn
        Table.ExpandRecordColumn
        Table.DuplicateColumn
    {"DisplayName"}, {"Location.DisplayName"}),
    #"Removed" =
        Table.RemoveColumns
        Table.ReorderColumns
        Table.RemoveRows
    in
    #"Removed"
```

Answer:

Verified Answer

Answer:

- A. TABLE.EXPANDLISTCOLUMN
- B. TABLE.REMOVECOLUMNS

Question 130:

You have a Power BI semantic model that contains two tables as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Answer Area

Cross filter direction for the many-to-one relationship is set to [answer choice].

Both
None
Single

To enable bi-directional filtering and row-level security (RLS) for the many-to-many relationship, you must first [answer choice].

change Cross filter direction
define the relationship as active
delete the many-to-one relationship

Answer:

A. Single

B. Delete the many to one relationship.

Question 131:

Question:

You create a **Power BI report** named **Summary1**.

You discover that **Summary1 is slow**.

You run **Performance Analyzer** to identify performance metrics for **Summary1**.

Which two metrics display the execution duration in Performance Analyzer?

Options:

- A. Top Operations
- B. DAX Query
- C. Server Requests
- D. Dependencies
- E. Visual Display

Answer:

Option B: DAX Query

Option E: Visual Display

Solution Explanation:

Power BI's **Performance Analyzer** provides key performance metrics to analyze **report slowness**. The **execution duration** of different report components is displayed under the following two metrics:

1. **DAX Query**

- Measures the time taken to execute **DAX expressions** in the report.
- Helps identify if **complex measures or calculated columns** are causing delays.

2. **Visual Display**

- Measures the time taken to **render visuals** on the report canvas.
- Includes factors like **chart complexity, number of visuals, and rendering issues**.

Why Other Options Are Incorrect:

✗ Option A: Top Operations

- **Incorrect** because **Top Operations** helps identify the **most resource-consuming operations** but **does not directly measure execution duration**.

✗ Option C: Server Requests

- **Incorrect** because **Server Requests** tracks **queries sent to external servers or DirectQuery sources**, but **not execution duration**.

✗ Option D: Dependencies

- **Incorrect** because **Dependencies** analyze relationships **between queries and visuals**, but do not measure execution time.

Final Answer:

DAX Query

Visual Display

Question 132:

You have a Microsoft 365 subscription that contains the resources shown in the following table.

Name	Type	Description
Group1	Microsoft 365 group	Contains all consultants
Group2	Mail-enabled group	Contains all consultants
Team1	Microsoft Teams org-wide team	Contains all employees and consultants
Sales reports	Power BI workspace	Consultants are assigned the Viewer role for Sales report

You create a new dashboard that uses row-level security (RLS) filters. You define a new role named Consultants.

To which resource can you assign the Consultants role?

- A. Group2
- B. Team1
- C. Sales reports
- D. Group1

Final Answer:

A. GROUP2

Question 133:

You have a **Power BI model** that contains two tables named **Sales** and **Date**.

The **Sales table** relates to the **Date table** using a **many-to-one** relationship. The **Sales table** contains the following columns:

- Date
- Product
- SalesAmount

You need to create a **DAX measure** for a **rolling 31-day sales total** that will return the **total sales amount** for a **selected date** and the **previous 30 days**.

Options:

- A. CALCULATE(SUM(Sales[SalesAmount]), DATEADD(Date[Date], -30, DAY))
- B. CALCULATE(SUM(Sales[SalesAmount]), DATESBETWEEN(Date[Date], MAX('Date'[Date]) - 30, MAX('Date'[Date])))
- C. CALCULATE(SUM(Sales[SalesAmount]), DATESMTD(Date[Date]))
- D. CALCULATE(SUM(Sales[SalesAmount]), DISTINCTCOUNT(Date[Date]) = 31)

Answer:

 **Option B:**

`CALCULATE(SUM(Sales[SalesAmount]), DATESBETWEEN(Date[Date], MAX('Date'[Date]) - 30, MAX('Date'[Date])))`

Solution Explanation:

The **DATESBETWEEN** function is the best choice for calculating a **rolling 31-day total** because it allows us to define a custom date range.

- **DATESBETWEEN(Date[Date], MAX('Date'[Date]) - 30, MAX('Date'[Date]))** selects the date range from the **current date (MAX('Date'[Date])) back 30 days**.
- **CALCULATE(SUM(Sales[SalesAmount]), DATESBETWEEN(...))** ensures that the sales amount is summed over this **31-day period**.

Why Other Options Are Incorrect:

 **Option A: DATEADD(Date[Date], -30, DAY)**

- **Incorrect** because DATEADD shifts the entire date context **back by 30 days**, but does not return a rolling **31-day window**.

 **Option C: DATESMTD(Date[Date])**

- **Incorrect** because DATESMTD (**Dates Month-to-Date**) only calculates **from the start of the month** to the selected date, **not a rolling 31-day total**.

 **Option D: DISTINCTCOUNT(Date[Date]) = 31**

- **Incorrect** because **DISTINCTCOUNT(Date[Date])** counts unique dates but does **not filter a rolling time period**.

Question 134:

Question:

You publish a **semantic model** to the **Power BI service**. The model contains data from the following sources:

- **Source1:** A Microsoft Excel file stored in **Microsoft OneDrive for Business**
- **Source2:** An **Azure SQL database** on a **virtual network**
- **Source3:** A **public website**

Which data sources require an **on-premises data gateway**?

Options:

- A. Source1 only
- B. Source2 only
- C. Source3 only
- D. Source1 and Source2 only
- E. Source2 and Source3 only
- F. Source1, Source2, and Source3

Answer:

Option B: Source2 only

Solution Explanation:

Power BI requires an on-premises data gateway when connecting to data sources that are behind a firewall or are on a private network. Let's analyze each source:

1. **Source1: Microsoft OneDrive for Business**
 - Does NOT require a gateway
 - Power BI natively connects to OneDrive for Business files without a gateway.
2. **Source2: Azure SQL database (on a virtual network)**
 - Requires a gateway
 - If the Azure SQL database is on a virtual network, Power BI cannot access it directly. An on-premises data gateway is needed to enable connectivity.
3. **Source3: Public website**
 - Does NOT require a gateway
 - Power BI can connect directly to public websites using web connectors, so no gateway is needed.

Why Other Options Are Incorrect:

✗ **Option A: "Source1 only"** → Incorrect

- **OneDrive for Business does not need a gateway.**

✗ **Option C: "Source3 only"** → Incorrect

- **Public websites do not need a gateway.**

✗ **Option D: "Source1 and Source2 only"** → Incorrect

- **Source1 does not need a gateway.**

✗ **Option E: "Source2 and Source3 only"** → Incorrect

- **Source3 does not need a gateway.**

✗ **Option F: "Source1, Source2, and Source3"** → Incorrect

- **Only Source2 requires a gateway.**

Question 135:

You have a Power BI semantic model named ModelA that contains the following columns:

Column name	Example value
OrderID	12345
OrderTitle	Order #12345
OrderDate	May 20, 2023
CustomerID	C54321
OrderDescription	Order placed May 20, 2023 containing 5 items
Shipping Address	123 Anywhere Lane

All of the columns use the Text data type.

Based on the model, you create a report named ReportA that contains the following columns:

- OrderID
- OrderDate
- CustomerID
- ShippingAddress

ReportA is the only report connected to ModelA.

You discover that ReportA has performance issues caused by the size of ModelA.

What should you do to optimize and reduce the size of ModelA? To answer, select the

appropriate options in the answer area.

Answer Area

Optimize:

Change Data Type of OrderID to Binary.
Change Data Type of OrderID to Whole Number.
Disable Summarization.
Enable Summarization.

Reduce the size:

Delete the OrderTitle and OrderDescription columns.
Hide the OrderTitle and OrderDescription columns.
Replace errors in the OrderTitle and OrderDescription column.

Answer:

1) Changing data type from text to whole number

Queries using numerical data types can execute faster than those using text data.

2) Delete the OrderTitle and OrderDescription columns.

Directly reduces the model size without affecting analysis.

Question 136:

You have a **Power BI semantic model** that contains **two queries**.

You discover that a **report based on the model has performance issues**.

You plan to use **Power Query** to **reduce the data loaded to the model**.

Which **two actions** should you perform?

Options:

- A. Apply group by and summarize techniques.
- B. Combine the queries by using Append.
- C. Remove unnecessary columns and rows.
- D. Combine the queries by using Merge.
- E. Create a new query group.

Answer:

Correct Answers:

- A. Apply group by and summarize techniques.**
- C. Remove unnecessary columns and rows.**

Solution Explanation:

1. **Apply Group By & Summarize (Option A **)

 - o **Grouping data** reduces the number of rows loaded into the model, **improving performance**.
 - o It helps in **aggregating only the required data**, reducing memory usage.

2. **Remove Unnecessary Columns & Rows (Option C **)

 - o **Reducing column count** removes **unneeded data**, making the model **lighter**.
 - o **Filtering out unnecessary rows** avoids loading **irrelevant data** into the model.

Why Other Options Are Wrong?

- **Option B  (Append Queries)**
 - o **Wrong because** appending **increases** data size instead of **reducing** it.
- **Option D  (Merge Queries)**
 - o **Wrong because** merging **combines datasets**, which may **increase complexity** and processing time.
- **Option E  (Create Query Group)**
 - o **Wrong because** creating a query group is **only for organization**, and does **not impact performance**.

Question 137:

Question:

You have an **on-premises data gateway**.

You need to **reduce the amount of data sent through the gateway by semantic models** that run in **Import storage mode**.

Solution: You create **aggregations** to summarize results.

Does this meet the goal?

Options:

- A. Yes
- B. No

Answer:

 A. Yes

Solution Explanation:

1. **Aggregations reduce the data volume** by summarizing detailed data at a higher level, which decreases the amount of data transferred.
2. In **Import mode**, the summarized data is stored in memory, reducing the need for frequent large data refreshes.
3. Since the **on-premises gateway is used for data refresh**, reducing the data size minimizes the **load on the gateway**.
4. **Aggregations improve query performance** by allowing Power BI to use precomputed summarized data instead of scanning the full dataset.
5. This solution effectively **meets the goal** by reducing the **amount of data transferred** and improving efficiency.

✗ Why "No" Would Be Wrong?

- If aggregations were **not used**, more data would be loaded into the Power BI **memory** through the **gateway**, increasing latency and processing time.
- The **gateway would handle large data loads**, slowing down performance.

Question 138:

You have an **on-premises data gateway**.

You need to **reduce the amount of data sent through the gateway** by **semantic models** that run in **Import storage mode**.

Solution: You **increase Automatic page refresh intervals**.

Does this meet the goal?

Options:

- A. Yes
- B. No

Answer:

✗ B. No

Solution Explanation:

1. **Increasing automatic page refresh intervals** means **refreshing the report less frequently**, but it does not reduce the amount of data transferred through the gateway.
2. Since the model is in **Import mode**, data is already preloaded into memory, and refresh intervals do not impact the data transfer **size**—only the refresh **frequency**.
3. **Reducing the refresh rate** can lower processing demand, but it **does not** reduce the amount of data that is transferred through the gateway.
4. A **better approach** would be using **aggregations**, filtering unnecessary data, or limiting columns and rows before import.
5. Since the **amount of data remains unchanged**, this solution does not meet the goal.

✗ Why "Yes" Would Be Wrong?

- **Automatic page refresh** mainly affects **DirectQuery mode**, where reports continuously pull new data from the source.
- In **Import mode**, data is only refreshed **on demand or at scheduled intervals**, so increasing the refresh interval does **not** affect the total data sent through the gateway.

Question 139:

You have an **on-premises data gateway**.

You need to **reduce the amount of data sent through the gateway** by **semantic models** that run in **Import storage mode**.

Solution: You **configure incremental refresh**.

Does this meet the goal?

Options:

- A. Yes
- B. No

Answer:

A. Yes

Solution Explanation:

1. **Incremental refresh** ensures that **only new or changed data** is loaded instead of reloading the entire dataset during each refresh.

2. Since **Import mode** preloads data into memory, a full refresh requires **reloading all data**, which increases the amount of data sent through the **on-premises data gateway**.
3. By enabling **incremental refresh**, only a **subset of data** (new or modified records) is transferred through the gateway, significantly **reducing data transfer size** and improving refresh performance.
4. This method is **highly effective** when working with large datasets, as it **lowers refresh duration, reduces memory usage, and minimizes the load on the gateway**.
5. Since this approach directly reduces data transfer, it meets the goal.

Why "No" Would Be Wrong?

- Without **incremental refresh**, every refresh sends the **entire dataset** through the gateway, which is inefficient.
- A **full refresh** would consume **more bandwidth, processing power, and time** compared to an **incremental refresh**.
- Since **incremental refresh reduces the data transferred**, selecting "No" would be incorrect.

Final Conclusion:

Configuring **incremental refresh**  **reduces the amount of data sent** through the **on-premises data gateway** in **Import mode**, making this the correct solution. 

Question 140:

You have an **on-premises data gateway**.

You need to **reduce the amount of data sent through the gateway by semantic models** that run in **Import storage mode**.

Solution: You **decrease the dashboard cache update frequency**.

Does this meet the goal?

Options:

- A. Yes
- B. No

Answer:

 **B. No**

Solution Explanation:

1. **Import storage mode** loads all data **into memory** and does **not query the data source** on-demand like DirectQuery.
2. The **dashboard cache update frequency** affects how often **cached report visuals** update, but it **does not impact the data refresh process**.
3. Since **Import mode refreshes data based on scheduled refresh cycles**, changing the cache update frequency **will not reduce the actual data transferred through the gateway**.
4. **The real issue** is the amount of **data being imported**, which can only be optimized by techniques like **incremental refresh** or filtering unnecessary data.
5. **Since decreasing the cache update frequency does not impact data transfer**, this solution **does not meet the goal**.

Why "Yes" is Wrong?

- **Dashboard cache update frequency** only affects how often **Power BI refreshes visual elements** for users.
- It **does not** change how **much data is imported** from the on-premises data source.
- The **data transfer still occurs at the same rate**, regardless of cache updates.

Question 141:

You have a Power BI semantic model named Model1.

You need to create a measure that will display the sales result for all blue units. The solution must maintain the existing filter context.

How should you complete the DAX expression? To answer, select the appropriate options in the answer area.

Answer Area

```
Sales =  
    CALCULATE  
    CALCULATETABLE  
    MAX  
    SUM  
        [Sales],  
        ('Unit'[Color] = "blue")  
    )  
    CROSSFILTER  
    FILTER  
    ISFILTERED  
    KEEPFILTERS
```

Answer:

A. CALCULATETABLE

A. KEEPFILTERS

Question 142:

You have a **Power BI semantic model** named **Model1** that runs in **Import storage mode**.

You need to **reduce the size of Model1**. The solution must **NOT increase report query response times**.

What should you do?

Options:

- A. Remove unnecessary columns.
- B. Unpivot unnecessary columns.
- C. Rename unnecessary columns.
- D. Change Model1 to DirectQuery storage mode.

Answer:

A. Remove unnecessary columns.

Solution Explanation:

1. **Import storage mode** loads all data into **Power BI's in-memory engine**, meaning **reducing model size can improve performance**.
2. **Unnecessary columns** take up **memory and processing power**, even if not used in reports. **Removing them directly reduces model size** without impacting query speed.
3. **Keeping only essential columns** ensures **faster query execution** since Power BI has **fewer data points to scan**.
4. **Power BI compresses data better** when fewer columns exist, leading to **more efficient memory usage**.
5. **Removing columns does not affect report query response times**, unlike other methods like **DirectQuery**, which can slow performance.

✖ Why Other Options Are Wrong?

- **B. Unpivot unnecessary columns ✗**
 - **Unpivoting increases the number of rows, expanding model size instead of reducing it.**
 - It also **increases query execution time** due to added complexity.
- **C. Rename unnecessary columns ✗**
 - **Renaming does not reduce size**; it only changes column names.
 - The data remains **the same** in terms of storage and performance.
- **D. Change Model1 to DirectQuery storage mode ✗**
 - **DirectQuery does not reduce size** but instead **shifts query execution to the data source**.
 - This can **increase report query response times**, especially with **slow-performing databases**.

Question 143:

You use Microsoft Power BI Desktop to review the data shown in the following exhibit.

The screenshot shows the Microsoft Power BI Desktop interface. On the left is a data grid table with columns: Date, Month, MonthNumber, Period, PeriodNumber, Qtr, QtrNumber, Year, Day, MonthStartDate, MonthEndDate, and MonthIncrementNumber. The data consists of 2,557 rows, all from January 2010, with various values for the other columns. On the right is a 'Data' pane containing a tree view of the data model. The tree includes nodes for AgeGroup, BU, Date (selected), DateHierarchy, Month, MonthEndDate, MonthStartDate, Quarter, and Year. Under Date, there are further nodes for Day, Month, and MonthIncrementNumber. Other nodes include Period, PeriodNumber, Qtr, QtrNumber, Year, YQM, and Fminvalue.

Date	Month	MonthNumber	Period	PeriodNumber	Qtr	QtrNumber	Year	Day	MonthStartDate	MonthEndDate	MonthIncrementNumber
1/1/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	1	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/2/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	2	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/3/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	3	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/4/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	4	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/5/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	5	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/6/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	6	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/7/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	7	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/8/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	8	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/9/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	9	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/10/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	10	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/11/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	11	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/12/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	12	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/13/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	13	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/14/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	14	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/15/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	15	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/16/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	16	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/17/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	17	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/18/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	18	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/19/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	19	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/20/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	20	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/21/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	21	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/22/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	22	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/23/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	23	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/24/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	24	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/25/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	25	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/26/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	26	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1
1/27/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	27	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1

Table: Date (2,557 rows) Column: Date (2,557 distinct values)

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Answer Area

You used [answer choice] on the Data table.

▼
auto date/time
bidirectional relationship
quick measures

Configure the Mask as date table setting for the Date table will remove [answer choice].

▼
the Date table
the MonthEndDate date hierarchy from the Data table
the MonthStartDate column

Answer:

A. Quick measures: These are pre-built calculations that can be quickly added to your data model. They do not directly impact the configuration of date tables or relationships.

B. The Month Start Date column: Marking a table as the date table does not remove specific columns like MonthStartDate. It only affects the automatic date hierarchies and time intelligence functions.

Question 144:

You have a **Power BI semantic model** named **Model1** that runs in **Import storage mode**.

You need to **reduce the size of Model1**.

Which two actions should you perform?

Options:

- A. Summarize the detail data.
- B. Upgrade to Power BI Premium.
- C. Implement row-level security (RLS).
- D. Optimize the column data types.
- E. Change the active relationships between tables to inactive relationships.

Answer:

- A. Summarize the detail data.**
- D. Optimize the column data types.**

Solution Explanation:

1. **Import storage mode** loads data into **Power BI's in-memory engine**.

2. To **reduce the model size**, we need to **minimize the amount of stored data** while maintaining performance.
3. **Summarizing the detail data (Option A)** reduces the number of rows in the dataset, making the model more compact.
4. **Optimizing column data types (Option D)**, such as converting **Text columns to Numeric** or **reducing precision**, helps Power BI **store data efficiently**, leading to better compression.
5. These actions **directly impact memory usage**, improving model performance without affecting report speed.

✖ Why Other Options Are Wrong?

- **B. Upgrade to Power BI Premium ✖**
 - **Premium does not reduce model size**; it only provides **higher capacity and additional features**.
 - The dataset size remains **unchanged** unless optimized separately.
- **C. Implement row-level security (RLS) ✖**
 - **RLS controls data access** but does **not reduce the model size**.
 - It simply **filters data based on user roles** at the time of query execution.
- **E. Change active relationships to inactive relationships ✖**
 - This affects **how tables relate** but **does not reduce data size**.
 - The model size remains the **same** unless columns are removed or summarized.

Question 145:

You have a Microsoft Excel spreadsheet that contains the data shown in the following table.

Department	Stage	School1	School2	School3	School4
Mathematics	1	75	65	90	70
Mathematics	2	80	70	80	75
Geography	1	95	65	80	75
Geography	2	80	70	80	75

You plan to build a data model for a Power BI report.

You need to prepare the data so that it is available to the model in the format shown in the following table.

Department	School	Avg Score
Mathematics	School1	77.5
Geography	School1	87.5

Which three actions should you perform in sequence in Power Query Editor? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Answer:

Actions

- Select the [Department] and [Stage] columns and unpivot the other columns.
- Select and unpivot the [Department] and [Stage] columns.
- Group by [Department] and [School] and create a new column named [Avg Score] that uses the AVERAGE function on the [Score] column.
- Rename the [Attribute] column as [School] and the [Value] column as [Score].
- Group by [Department],[School1],[School2],[School3],[School4] and create a new column named [Avg Score] that uses the AVERAGE function on the [Stage] column.

Answer Area

- Select the [Department] and [Stage] columns and unpivot the other columns.
- Rename the [Attribute] column as [School] and the [Value] column as [Score].
- Group by [Department] and [School] and create a new column named [Avg Score] that uses the AVERAGE function on the [Score] column.

Steps to Transform Data using Unpivoting in Power BI

Step 1: Unpivot Columns

- Select the **[Department]** and **[Stage]** columns.
- Unpivot the remaining columns (**School1**, **School2**, **School3**, and **School4**).
- This process restructures the data into a matrix format where similar values are consolidated into a single column.
- Unpivoting helps flatten the data by converting attribute-value pairs into separate columns.

Step 2: Rename Columns

- Rename the **[Attribute]** column to **[School]**.
- Rename the **[Value]** column to **[Score]** for better clarity.

Step 3: Group Data

- Group by **[Department]** and **[School]** to summarize or perform further aggregations.

Question 146:

You have a report that contains a **bar chart** and a **column chart**.

- The **bar chart** shows **customer count by customer segment**.
- The **column chart** shows **sales by month**.

You need to ensure that when a **segment** is selected in the **bar chart**, you see which portion of the total **sales for the month** belongs to the customer segment.

Options:

- A. **Highlight**
- B. **Filter**
- C. **No impact**

Answer:

A. **Highlight** 

Solution Explanation:

- **Highlighting** allows the column chart to show the total sales for each month while also visually emphasizing the portion contributed by the selected **customer segment**.
- This ensures that users can see both the **overall context** and the **contribution of the selected segment** within the total sales.

Why Other Options Are Incorrect?

- B. **Filter**  – Filtering would remove all other data except the selected segment, preventing the user from seeing how the segment compares to total sales.
- C. **No impact**  – This would mean that selecting a customer segment in the bar chart does not affect the column chart, which does not meet the requirement.

Question 147:

Question:

A user creates a **Power BI report (ReportA)** that uses a **custom theme**.

You create a **dashboard (DashboardA)** and need to ensure that **DashboardA uses the custom theme** while **minimizing development effort**.

Options:

- A. **Publish ReportA to Power BI**
- B. **From ReportA, save the current theme**
- C. **Publish ReportA to the Microsoft Power BI Community theme gallery**
- D. **From DashboardA, create a custom theme**
- E. **From DashboardA, upload a JSON theme**

Answer:

- B. From ReportA, save the current theme**
- E. From DashboardA, upload a JSON theme**

Solution Explanation:

1. **Saving the theme from ReportA (Option B)** – This allows you to extract the theme from the report so it can be reused elsewhere.
2. **Uploading the theme to DashboardA (Option E)** – Dashboards in Power BI require themes to be applied separately by uploading a JSON theme file.

Why Other Options Are Incorrect?

- **A. Publish ReportA to Power BI ✗** – Publishing the report does not automatically apply its theme to a dashboard. Dashboards and reports handle themes separately.
- **C. Publish ReportA to the Microsoft Power BI Community theme gallery ✗** – This is for sharing themes with the community, not for applying them to a specific dashboard.
- **D. From DashboardA, create a custom theme ✗** – While this allows manual theme creation, it does not minimize effort. Using the JSON file from ReportA is the more efficient solution.

Question 148:

You need to create a visualization that compares **revenue and cost over time**.

Options:

- A. Waterfall chart**
- B. Stacked area chart**
- C. Line chart**
- D. Donut chart**

Answer:

- C. Line chart**

Solution Explanation:

- A **line chart** is the best choice for comparing revenue and cost over time.
- It effectively shows trends and variations in both metrics over a continuous time period.
- Each metric (revenue and cost) can have its own line, making it easy to identify patterns and fluctuations.

Why Other Options Are Incorrect?

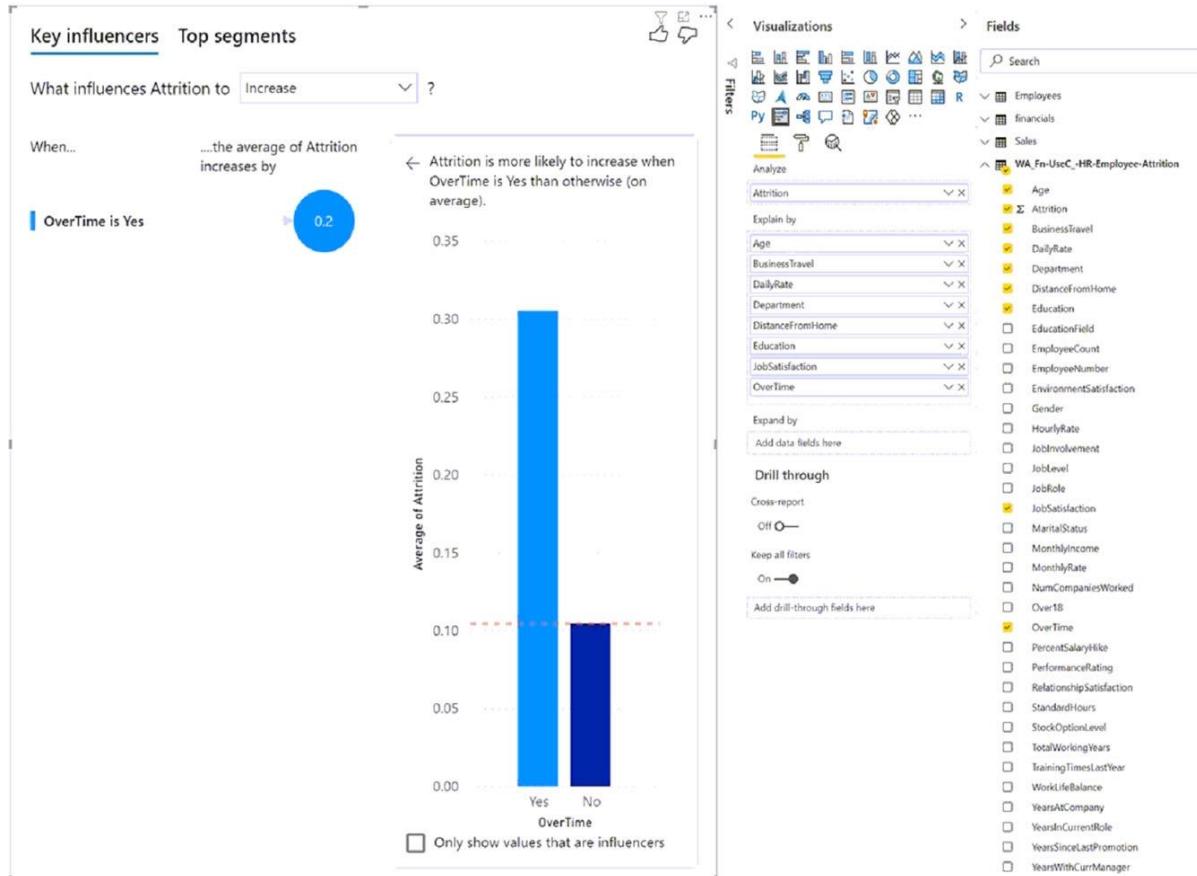
- **A. Waterfall chart ✗** – Used to show cumulative changes in a measure (e.g., profit contribution), not for continuous trend comparisons over time.

- **B. Stacked area chart ✗** – While it shows trends, it **stacks values**, making it harder to compare individual revenue and cost lines separately.
- **D. Donut chart ✗** – Best for **showing parts of a whole** (e.g., revenue share by category), not for trend analysis over time.

Question 149:

You have a report in Power BI Desktop.

You add a key influencers visual as shown in the exhibit. (Click the Exhibit tab.)



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Hot Area:

Answer Area

Identifying additional factors that increase attrition can be achieved by [answer choice].

turning on Cross-report
adding more fields to Explain by
adding more fields to Expand by
moving fields from Explain by to Expand by

Employee attrition is [answer choice] times greater when employees work overtime.

0.11
.2
1
3

Answer:

Box 1: adding more fields to Explain By

Box 2: 3

Question 150:

You build a report to help the sales team understand its **performance and the drivers of sales**. The team needs a **single visualization** to identify which factors affect success.

Options:

- A. **Key influencers**
- B. **Line and clustered column chart**
- C. **Q&A**
- D. **Funnel chart**

Answer:

A. Key influencers

Solution Explanation:

- The **Key Influencers** visualization is specifically designed to analyze the impact of different factors on a given outcome (e.g., sales success).
- It helps users **identify key drivers** by showing which variables most significantly affect sales performance.
- It provides both **quantitative and categorical insights**, making it easy to interpret the most important factors.

Why Other Options Are Incorrect?

- B. **Line and clustered column chart** ❌ – Good for showing trends but **not for identifying influencing factors**.
- C. **Q&A** ❌ – Allows users to ask natural language questions but does **not provide automatic factor analysis**.
- D. **Funnel chart** ❌ – Best for **visualizing stages in a process** (e.g., sales pipeline) but **not for analyzing key drivers**.

Question 151:

You have a table that contains the following three columns:

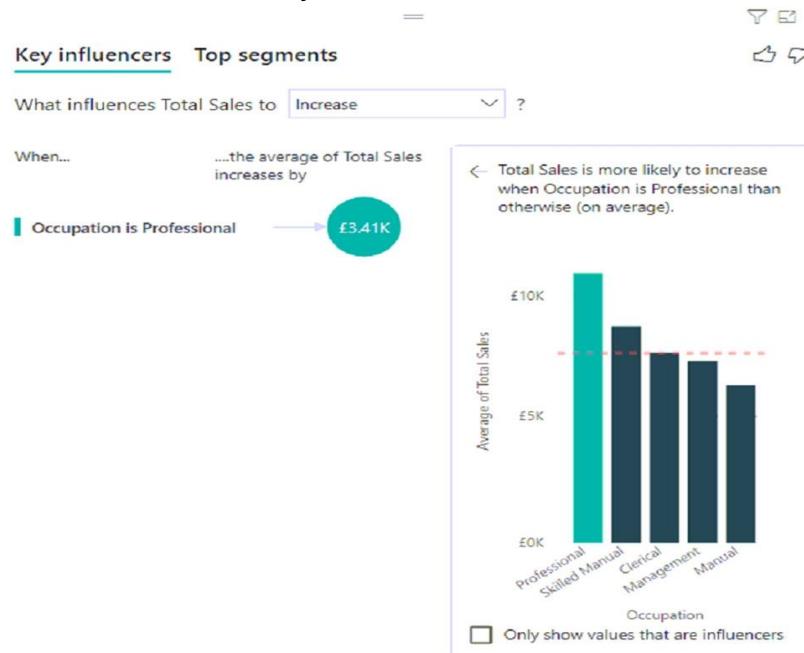
City -

-

⌚ Total Sales

🔗 Occupation

You need to create a key influencers visualization as shown in the exhibit. (Click the Exhibit tab.)



How should you configure the visualization? To answer, select the appropriate options in the answer area.

Hot Area:

Answer Area

Analyze:

City
Occupation
Total Sales

Explain by:

City
Occupation
Total Sales

Answer:

Box 1: **Total Sales** -

The key influencers visual helps you understand the factors that drive a metric you're interested in, here Total Sales. It analyses your data, ranks the factors that matter, and displays them as key influencers.

Box 2: **Occupation** -

Measures and summarized columns are automatically analysed at the level of the Explain by fields used.

Question 152:

You are using the **Key Influencers** visual to identify factors affecting the **quantity of items sold in an order**.

You added the following fields to the **Explain By** section:

- Customer Country
- Product Category
- Supplier Country
- Sales Employee
- Supplier Name
- Product Name
- Customer City

The **Key Influencers** visual provides insights based on the selected fields.



Options:

- Customers in Austria order 18.8 more units than the average order quantity.
- Customers in Boise order 20.37 percent more than the average order quantity.
- Product Category positively influences the quantity per order.
- Customers in Cork order lower quantities than average.

Answer:

 A. Customers in Austria order 18.8 more units than the average order quantity.

Solution Explanation:

- The **Key Influencers** visual identifies the top factors affecting the target variable (quantity sold per order).
- The results typically show numeric impacts like "**+18.8 units**" for customers in **Austria**, meaning their **orders contain 18.8 more units on average**.
- This aligns with option **A**, as **Key Influencers highlights Austria as a strong positive factor**.

Why Other Options Are Incorrect?

- **B. Customers in Boise order 20.37% more**  – The **visual shows absolute differences (units sold)** rather than percentages.
- **C. Product Category influences order quantity**  – The **visual identifies top individual factors** like customer location, **not broad categories**.
- **D. Customers in Cork order lower quantities**  – The question focuses on **top influencing factors**, and negative influences (lower quantities) are not explicitly stated.

Question 153:

You have a report that contains four pages. Each page contains slicers for the same four fields.

Users report that when they select values in a slicer on one page, the selections are not persisted on other pages.

You need to recommend a solution to ensure that users can select a value once to filter the results on all the pages.

Options:

- A. Create a bookmark for each slicer value.
- B. Replace the slicers with report-level filters.
- C. Sync the slicers across the pages.
- D. Replace the slicers with page-level filters.
- E. Replace the slicers with visual-level filters.

Answer:

- B. Replace the slicers with report-level filters.**
- C. Sync the slicers across the pages.**

Solution:

To ensure that slicer selections persist across all pages, you can either **replace slicers with report-level filters** (Option B) or **sync slicers across pages** (Option C).

- **Report-level filters** apply to all pages, ensuring consistent filtering across the entire report.
- **Syncing slicers** allows users to interact with the same slicer across multiple pages, keeping selections uniform.
- Both options provide an efficient way to maintain selections across different pages.
- This ensures a seamless experience for users without requiring manual selection on each page.

Why Other Options Are Incorrect?

X A. Create a bookmark for each slicer value – Bookmarks **store a specific view** but do not dynamically sync slicers. Users would need to **manually select bookmarks**, making it **inefficient**.

X D. Replace the slicers with page-level filters – Page-level filters apply **only to a single page**, so selections **won't persist across pages**, failing to meet the requirement.

X E. Replace the slicers with visual-level filters – Visual-level filters **only affect individual visuals**, not the entire report, so the selections won't apply across multiple pages.

Question 154:

Question:

You have a report that includes a card visualization.

You need to apply the following conditional formatting to the card while minimizing design effort:

- For values that are **greater than or equal to 100**, the **font of the data label** must be **dark red**.
- For values that are **less than 100**, the **font of the data label** must be **dark gray**.

Which type of format should you use?

Options:

- A. Color scale
- B. Rules
- C. Field value

Answer:

 **B. Rules**

Solution:

The **Rules** formatting option allows you to define conditions based on specific values. In this case:

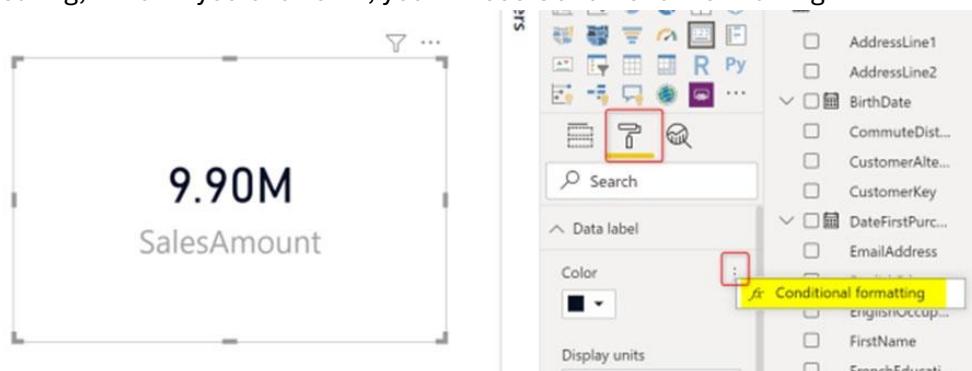
- A rule can be set where values ≥ 100 change the font to **dark red**.
- Another rule can be set where values < 100 change the font to **dark gray**.
- This approach is straightforward and doesn't require additional calculated fields.
- It ensures the formatting updates dynamically as data changes.

Why Other Options Are Incorrect?

 **A. Color scale** – The **Color scale** option applies a gradient of colors based on values, which is not suitable for **discrete conditions** like "greater than or equal to 100" and "less than 100".

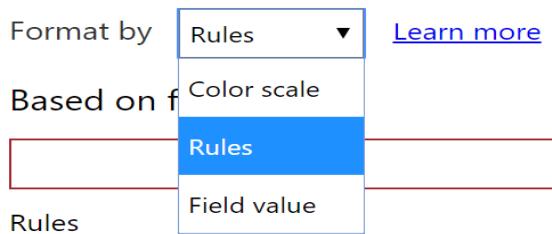
 **C. Field value** – This option is used when the color formatting is determined by a **separate measure or field** containing color values. Since we are directly setting conditions in this case, **Rules** is the better choice.

Finding the conditional formatting in the card visual is a bit tricky. There is no separate option for that. You need to go to the Format tab of the visual, and then expand the Data Label. The right beside the Data Label's colour you need to hover your mouse, and you will find a three dots icon appearing, which if you click on it, you will see Conditional Formatting.



Now in the Conditional Formatting tab, you can apply it in different methods. for example, you can choose Rules, and then

Color



The Rules mode will give you the ability to put custom roles as below;

This screenshot shows the 'Color' settings dialog. At the top, 'Format by' is set to 'Rules'. Below that, 'Based on field' is set to 'Sum of SalesAmount' and 'Summarization' is set to 'Sum'. There are three rules defined:

- If value is greater than or equal to 0 and is less than 500000, then red
- If value is greater than or equal to 500001 and is less than 800000, then yellow
- If value is greater than or equal to 8000001 and is less than 1500000, then green

Buttons for 'Reverse color order' and '+ New rule' are also visible.

Question 155:

You have a Power BI dashboard named DashboardA that contains a tile named TileA. TileA contains a treemap visual from a report named ReportA.

You need to provide the users of DashboardA with additional tiles that relate to the contents of TileA.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

- Actions**
- From Focus mode, pin the relevant visuals to DashboardA.
 - From Focus mode, review the generated visuals.
 - From DashboardA, select the TileA options, and then select **View insights**.
 - From ReportA, select the treemap visual options, and then select **Spotlight**.
 - From ReportA, select **Get Insights**.
 - From DashboardA, select **TileA** to open ReportA.

Answer Area

From DashboardA, select the TileA options, and then select **View insights**.

From Focus mode, review the generated visuals.

From Focus mode, pin the relevant visuals to DashboardA.

Question 156:

You are creating a dashboard using the **Power BI service**.

You have an existing **report page** that contains **three charts**.

You need to add the charts to the **dashboard** while **maintaining the interactivity** between the charts.

What should you do?

Options:

- A. Edit interactions in the report and set all interactions to Filter.
- B. Pin each chart as a tile.
- C. Edit the dashboard theme and pin each chart as a tile.
- D. Pin the report page as a live tile.

Answer:

- D. Pin the report page as a live tile.

Solution:

- **Pinning a report page as a live tile** ensures that the **interactivity** between charts remains intact.
- When users interact with one chart, the **filters and interactions apply across all visualizations** on the page.
- Unlike individual tiles, a **live page tile updates dynamically** when the underlying data changes.
- This method requires less effort compared to pinning individual tiles separately.

Why Other Options Are Incorrect?

✗ A. Edit interactions in the report and set all interactions to Filter – This **only affects report-level interactions**, not dashboard behavior. Dashboard tiles do not maintain interactivity unless pinned as a **live page**.

✗ B. Pin each chart as a tile – **Pinned tiles are static** and do not maintain interactivity. Each chart will function **independently**, which does not meet the requirement.

✗ C. Edit the dashboard theme and pin each chart as a tile – Changing the **dashboard theme** only affects styling, **not interactivity**. Also, **pinning charts individually** makes them static, breaking interactions.

Question 157:

You need to create a visual as shown in the following exhibit.

Month Name	Total Sales	Sales Last Year	% Growth to Last Year
January	£559,263.79	£144,365.51	74.19%
February	£583,915.29	£215,923.28	63.02%
March	£684,091.92	£211,347.46	69.11%
April	£957,686.49	£350,270.97	63.43%
May	£841,473.26	£310,708.65	63.08%
June	£876,911.71	£298,356.83	65.98%
July	£922,410.09	£348,435.28	62.23%
August	£1,002,219.24	£388,213.68	61.26%
September	£1,152,976.22	£407,595.76	64.65%
October	£1,262,647.67	£465,583.06	63.13%
November	£555,548.44	£555,548.44	0.00%
December	£553,615.45	£553,615.45	0.00%
Total	£9,952,759.56	£4,249,964.36	57.30%

The indicator color for Total Sales will be based on % Growth to Last Year.

The solution must use the existing calculations only.

How should you configure the visual? To answer, select the appropriate options in the answer area.

Hot Area:

Answer Area

Conditional
formatting:

▼
Background color
Data bars
Font color
Icons
Web URL

Format by:

▼
Color scale
Field value
Rules

Answer:

Verified Answer

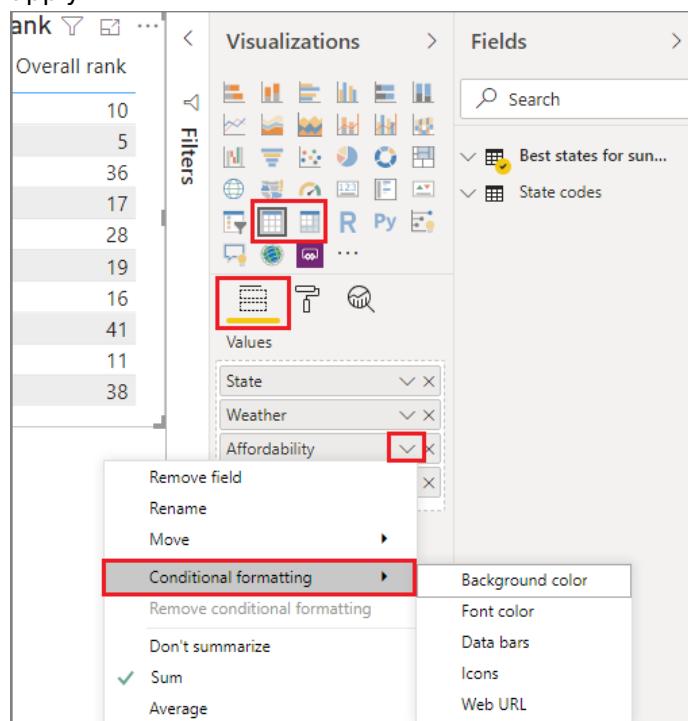
A. BACKGROUND COLOR

B. RULES

Explanation:

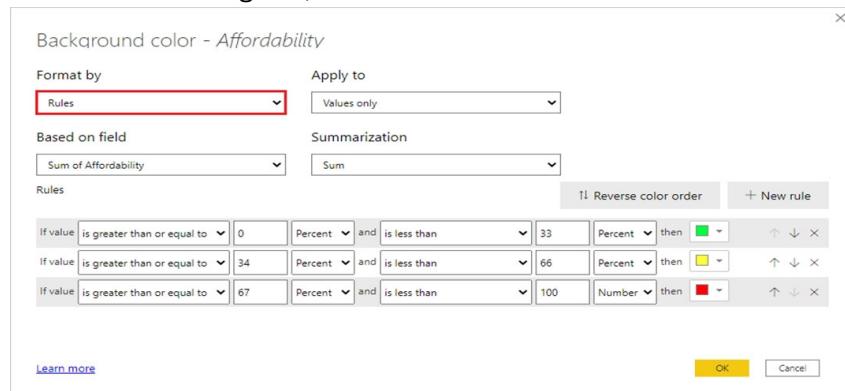
Box 1: Background color -

To apply conditional formatting, select a Table or Matrix visualization in Power BI Desktop. In the Visualizations pane, right-click or select the down-arrow next to the field in the Values well that you want to format. Select Conditional formatting, and then select the type of formatting to apply.



Box 2: Rules -

To format cell background or font color by rules, in the Format by field of the Background color or Font color dialog box, select Rules.



Question 158:

You are using existing reports to build a dashboard that will be viewed frequently in portrait mode on mobile phones.

You need to build the dashboard.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

- Pin items from the reports to the dashboard.
- Open the dashboard.
- Create a phone layout for the existing reports.
- Edit the Dashboard mobile view.
- Rearrange, resize, or remove items from the mobile layout.

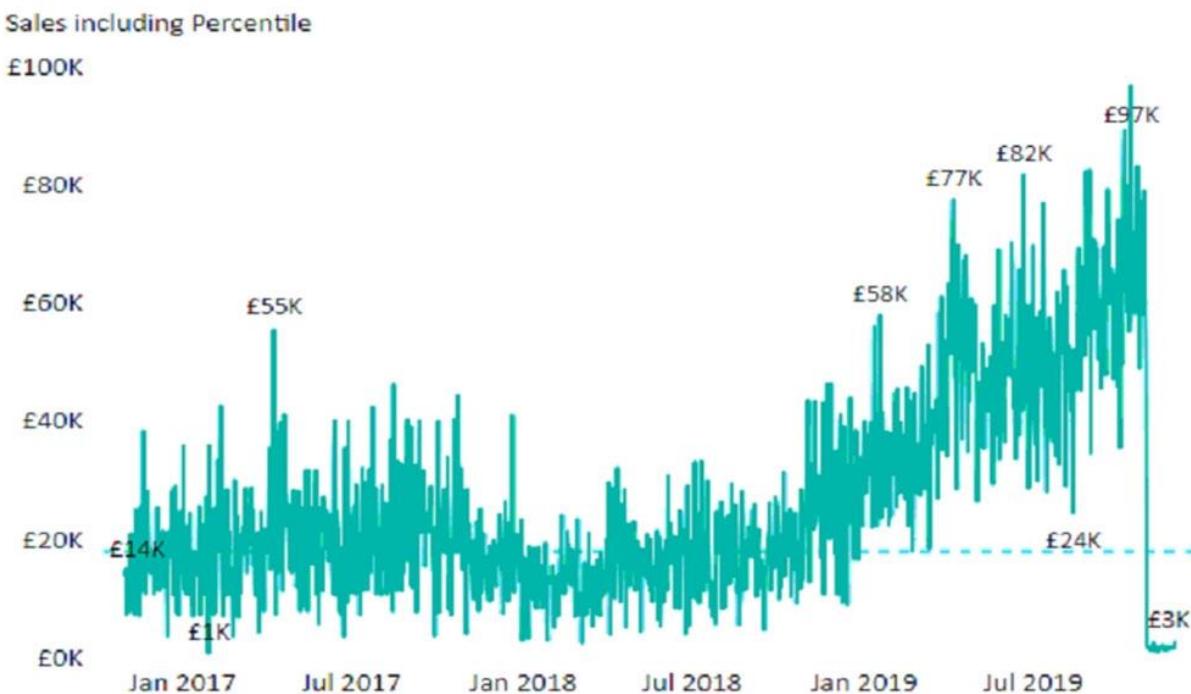
Answer Area

- Pin items from the reports to the dashboard.
- Open the dashboard.
- Edit the Dashboard mobile view.
- Rearrange, resize, or remove items from the mobile layout.



Question 159:

You plan to create the chart shown in the following exhibit.



How should you create the dashed horizontal line denoting the 40th percentile of daily sales for the period shown?

Options:

- A. Add a measure to the visual that uses the following DAX expression. Measure1 = PERCENTILEX.INC (Sales,sales[Total Sales],0.40)
- B. Add a measure to the visual that uses the following DAX expression. Measure1 = PERCENTILEX.EXC (Sales,sales[Total Sales],0.40)

C. Add a new percentile line that uses Total Sales as the measure and 40% as the percentile.

D. Create a horizontal line that has a fixed value of 24,000.

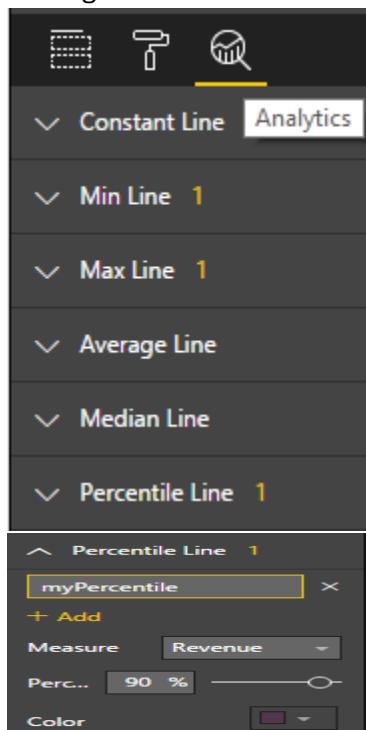
Answer:

C Add a new percentile line that uses Total Sales as the measure and 40% as the percentile.

Explanation:

The analytics feature enables you to show percentiles across groups specified along a specific axis.

1. Click on the analytics tab
2. Select Percentile
3. You can choose a specific percentile along with other formatting options.
4. Drag a date or non-numeric dimension into the Axis of a column chart



Question 160:

You are building a **Power BI report**.

Users will view the report **on their mobile devices**.

You need to configure the report to **display data based on each user's location**.

Which two actions should you perform?

Options:

- A. From Power Query Editor, detect the data types of the relevant columns.
- B. In **Data Category**, set the **geographic data category** for the relevant columns.

- C. Create a **hierarchy** for columns of the geography data type.
- D. Use the columns of the geography data type in all visuals.
- E. For the relevant columns, set **synonyms** to match common geographical terms.

Answer:

- B. In Data Category, set the geographic data category for the relevant columns.
- D. Use the columns of the geography data type in all visuals.

Solution:

- To display data based on a user's location, Power BI must recognize geographic data like country, state, city, etc.
- Setting the Data Category (Option B) ensures that Power BI understands which columns represent location-based data and allows automatic location-based filtering on mobile devices.
- Using geographic data columns in visuals (Option D) ensures that the report dynamically updates based on the user's location when viewed on a mobile device.
- This approach enables location-aware filtering in the Power BI mobile app.

Why Other Options Are Incorrect?

- A. Detecting data types in Power Query Editor – While setting the correct data type is useful, it does not enable location-based filtering in mobile reports.
- C. Creating a hierarchy for geography columns – Hierarchies help in drill-down analysis, but they do not affect location-based filtering dynamically.
- E. Setting synonyms for geographical terms – Synonyms only help with Q&A functionality (natural language queries) and do not enable location-based filtering.

Question 161:

You have a report that contains a **donut chart** and a **clustered column chart**. Interactions between the visuals use the default settings.

You need to modify the report so that when you select a column in the **column chart**, the **donut chart** redraws using only the data from the selected column.

Options:

- A. Select the **donut chart** and set the column chart interaction to **Filter**.
- B. Select the **column chart** and set the donut chart interaction to **Filter**.

C. **Select the donut chart** and set the column chart interaction to **None**.

D. **Select the column chart** and set the donut chart interaction to **None**.

Answer:

 **B. Select the column chart and set the donut chart interaction to Filter.**

Solution:

- By **default**, Power BI **highlights** the donut chart when you select a column in the column chart.
- You need to **change this interaction** so that instead of highlighting, the donut chart **filters to show only the selected data**.
- To do this, **select the column chart**, go to the **Format tab** → **Edit Interactions**, and **set the interaction for the donut chart to "Filter"**.
- Now, when you select a column, the **donut chart will update to display only the relevant data from that selection** instead of showing all data with highlights.

Why Other Options Are Incorrect?

 **A. Selecting the donut chart and setting the column chart interaction to Filter**

- Interactions must be set from the chart that triggers the filter (**column chart**) to the affected chart (**donut chart**).
- Setting interactions from the **donut chart** will not change how it responds to the column chart selection.

 **C. Selecting the donut chart and setting the column chart interaction to None**

- This would **prevent** the column chart from affecting the donut chart, which is the **opposite** of the required behavior.

 **D. Selecting the column chart and setting the donut chart interaction to None**

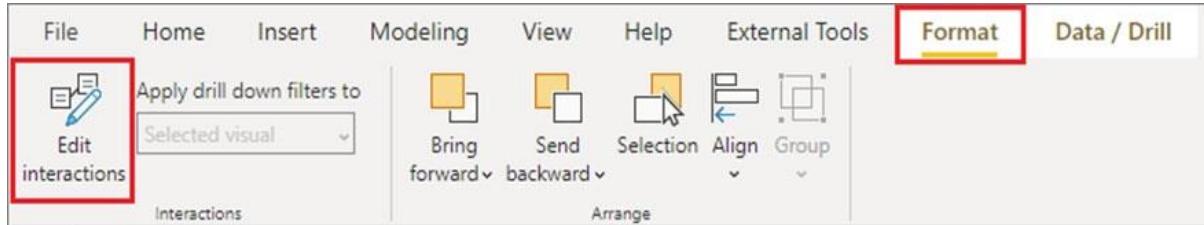
- This would **disable interactions completely**, meaning the donut chart **would not change at all** when selecting a column, which is not the intended result.

Explanation:

Filters remove all but the data you want to focus on.

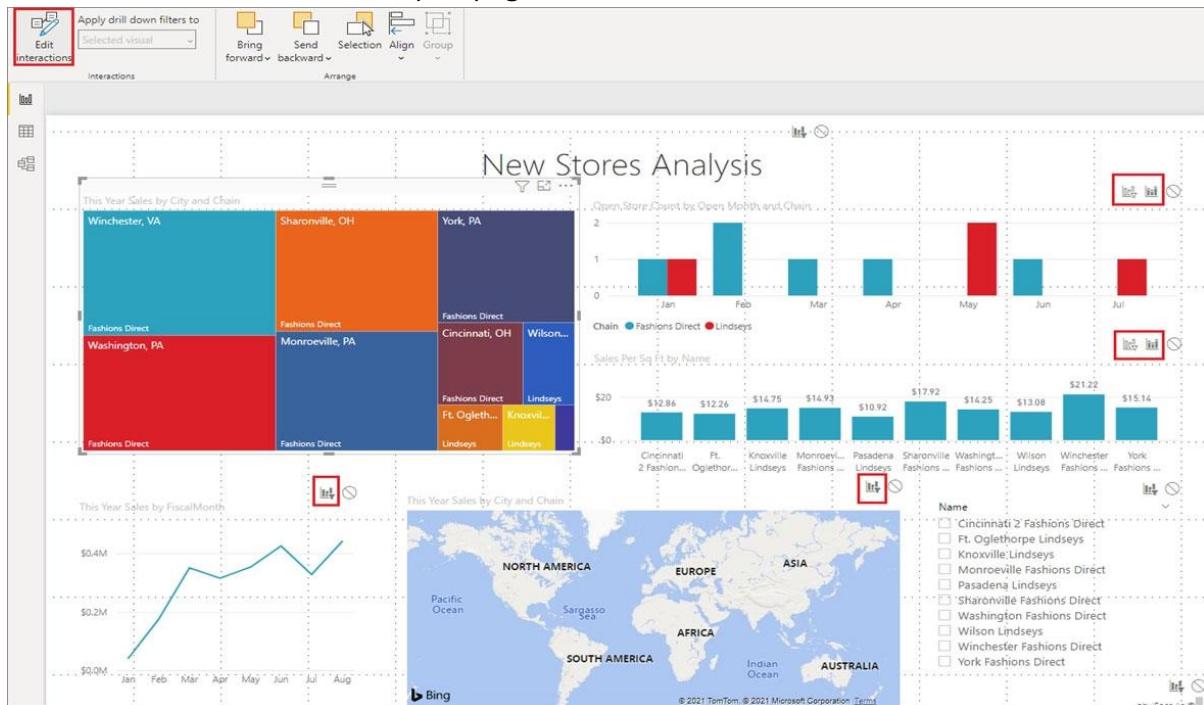
Note: Enable the visual interaction controls.

1. Select a visualization to make it active.
2. Display the Visual Interactions options.
3. In Power BI Desktop, select Format > Edit interactions.



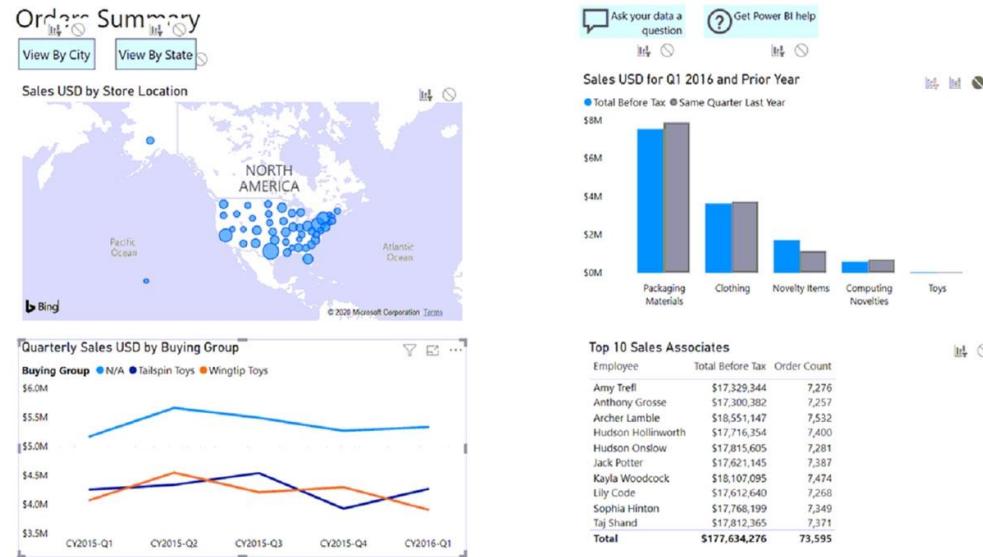
4. To display the visualization interaction controls, select Edit interactions. Power BI adds filter and highlight icons to all of the other visualizations on the report page.

We can see that the tree map is cross-filtering the line chart and the map, and is cross-highlighting the column chart. You can now change how the selected visualization interacts with the other visualizations on the report page.



Question 162:

You have a report page that contains the visuals shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

Answer Area

Selecting a quarter on the line chart will [answer choice] the clustered column chart.

	▼
cross-filter	
cross-highlight	
not affect	

Selecting a data point on the Tailspin Toys line on the line chart will [answer choice] the map.

	▼
cross-filter	
cross-highlight	
not affect	

Answer:

Box 1: not affect

Box 2: cross-filter -

Question 163:

Question:

You are creating a **Power BI report** using **Power BI Desktop**.

You need to include a **visual that shows trends and other useful information automatically**. The **visual must update** based on selections in **other visuals**.

Options:

- A. Q&A
- B. Smart Narrative
- C. Key Influencers
- D. Decomposition Tree

Answer:

D. Decomposition Tree

Solution:

- A **decomposition tree** is an **AI-powered visual** in Power BI that **automatically breaks down data** and shows **trends** dynamically.
- It allows **drill-down analysis** by breaking data into **hierarchical components**, making it **interactive and responsive** to other visuals.
- The **tree updates dynamically** when users **filter or select** data in other visuals, making it perfect for understanding trends and patterns.

Why Other Options Are Incorrect?

X A. Q&A

- The **Q&A visual** allows users to **ask questions in natural language** and get answers as visuals, but it does not automatically **show trends** or update **based on selections** in other visuals.

X B. Smart Narrative

- **Smart Narrative** generates **automatic textual summaries** of report insights but does **not show trends graphically**.

X C. Key Influencers

- The **Key Influencers** visual **identifies factors that affect an outcome** but does **not focus on trends** over time.

Question 164:

In Power BI Desktop, you have a dataset that contains a table.

You create a table visual on a Power BI report page as shown in the following exhibit.

Plant Name	Plant Image
Pothos	https://raw.githubusercontent.com/ml
Spider plant	https://raw.githubusercontent.com/ml
philodendron	https://raw.githubusercontent.com/ml
ZZ plant	https://raw.githubusercontent.com/ml

You need to configure the visual to display the referenced image instead of the URL in the Plant Image column.

What should you do?

Options:

- A. From the Formatting tab, select Values, and then set URL icons to On for the table.
- B. Set the Data category of the Plant Image field to Web URL.
- C. Set the Data type of the Plant Image field to Binary.
- D. Set the Data category of the Plant Image field to Image URL.

Answer:

- D. Set the Data category of the Plant Image field to Image URL.

Question 165:

You have a Microsoft Excel spreadsheet named Excel1 that contains survey results.

You have a Power BI dashboard named DashboardA that has Q&A enabled.

You need to ensure that users who can access DashboardA can ask questions based on the contents of Excel1 and pin visuals based on their queries to DashboardA. The solution must minimize development time.

Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
From powerbi.com, pin a range from Excel1 to DashboardA.	From Excel, format the data in Excel1 as a table.
From Excel, format the data in Excel1 as a table.	From powerbi.com, import Excel1 as a dataset.
From powerbi.com, import Excel1 as a dataset.	
From powerbi.com, add a tile for the Excel1 dataset to DashboardA.	From powerbi.com, add a tile for the Excel1 dataset to DashboardA
From Excel, create a named range by using the data in Excel1.	
From powerbi.com, upload Excel1.	

Question 166:

You have a **clustered bar chart** that contains a measure named **Salary** as the **value** and a field named **Employee** as the **axis**.

- **Salary** is a **numerical amount** representing **US dollars**.
- You need to **create a reference line** to show which employees are **above the median salary**.

Solution Attempted:

- You **create a constant line** and set the value to **0.5**.

Options:

- A. Yes
B. No

Answer:

 B. No

Solution Explanation:

- A **constant line** with a value of **0.5** does **not** correctly represent the **median salary**.
- **Median salary** is a **calculated value** based on the dataset and is **not a fixed number like 0.5**.
- The correct approach is to **calculate the median** using a **DAX measure** and use it as a **reference line**.

Correct Approach:

- Use **DAX** to calculate the **median salary**:
- $\text{MedianSalary} = \text{MEDIAN}(\text{Table}[Salary])$
- Then, add a **percentile or median reference line** using this measure in the visual.

Why is Option A (Yes) Incorrect?

- ✗ A constant line set to **0.5** assumes that the **Salary values are between 0 and 1**, which is incorrect because **Salary values are in US dollars** (e.g., \$50,000, \$75,000).
- ✗ The **median salary** must be calculated dynamically based on the data rather than being a **fixed constant**.

Question 167:

You have a **clustered bar chart** that contains a measure named **Salary** as the **value** and a field named **Employee** as the **axis**.

- **Salary is a numerical amount representing US dollars.**
- You need to **create a reference line** to show which employees are **above the median salary**.

Solution Attempted:

- You **create an average line** by using the **Salary measure**.

Options:

- A. Yes
B. No

Answer:

✗ B. No

Solution Explanation:

- The **median** and **average (mean)** are **not the same**.
- A **median line** would correctly divide the data so that **50% of the employees** have salaries **above** the median and **50% are below**.
- An **average (mean) line** might not accurately reflect the middle salary because it can be **skewed by outliers** (e.g., very high or very low salaries).
- Therefore, an **average line does not correctly meet the requirement** of identifying employees **above the median salary**.

✓ Correct Approach:

- Instead of an **average line**, create a **median line** by using a **DAX measure**:
- MedianSalary = MEDIAN(Table[Salary])

- Use this **MedianSalary** measure as the **reference line** in the visual.

Why is Option A (Yes) Incorrect?

✗ The **average (mean)** salary does not guarantee that **50% of employees** are below and **50% are above** it, as the **median salary does**.

✗ The **goal is to find employees above the median**, so using the **mean** is not the correct solution.

Question 168:

Question:

You have a **clustered bar chart** that contains a measure named **Salary** as the **value** and a field named **Employee** as the **axis**.

- **Salary** is a **numerical amount** representing **US dollars**.
- You need to **create a reference line** to show which employees are **above the median salary**.

Solution Attempted:

- You **create a percentile line** by using the **Salary measure** and set the **percentile to 50%**.

Options:

- A. Yes
B. No

Answer:

A. Yes

Solution Explanation:

- The **50th percentile** is **exactly the median** of a dataset.
- A **percentile line at 50%** correctly identifies the middle salary, ensuring that **50% of employees have salaries above it** and **50% are below it**.
- Since the goal is to **identify employees above the median salary**, setting a **50% percentile line** is the correct approach.
- Unlike the **average (mean)**, which can be skewed by **extreme values**, the **median (50th percentile)** gives a more **accurate central reference**.

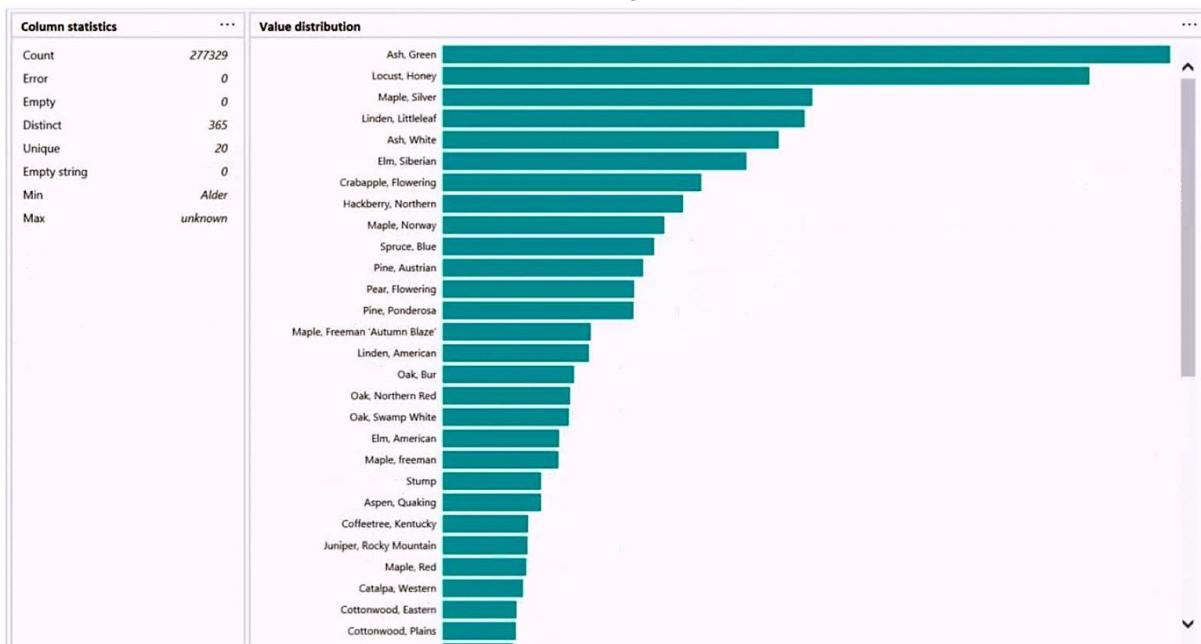
Why is Option B (No) Incorrect?

- ✖ The **50th percentile is the median**, so this method is **correct**.
- ✖ A different approach (such as using an average line) **would be incorrect**, but a percentile line set to **50%** achieves the goal.

Question 169:

You are profiling data by using Power Query Editor.

You have a table that contains a column named column1. Column statistics and Value distribution for column1 are shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

There [answer choice] only once.

are 20 values that occur
are 365 values that occur
are 277,329 values that occur
is one value that occurs

The Pear, Flowering species is found more often in column1 than the [answer choice] species.

Ash, Green
Crabapple, Flowering
Elm, American
Spruce, Blue

Answer:

Box 1: **are 20 values that occur -**

Box 2: **Elm, American -**