

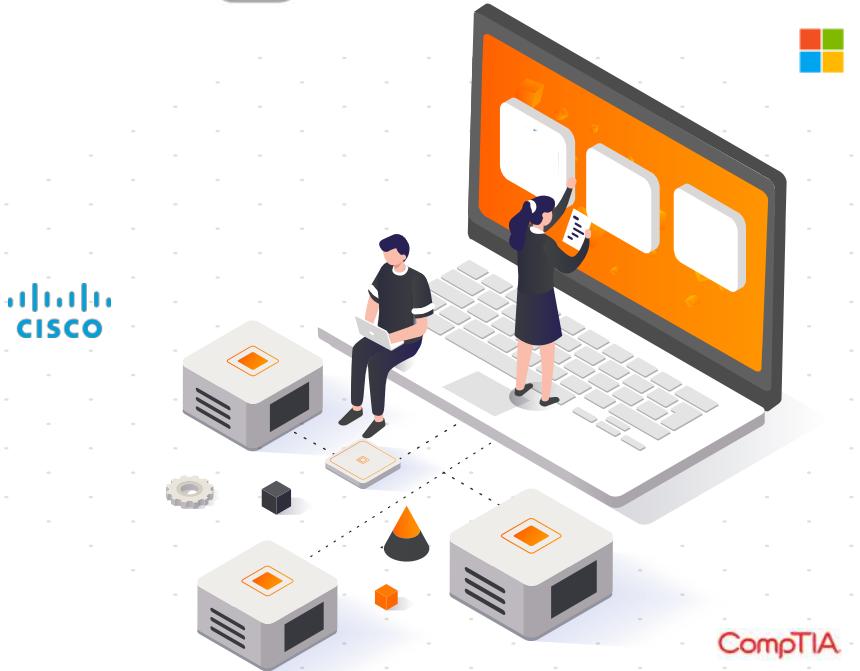


# CertyIQ

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# About CertyIQ

We here at CertyIQ eventually got enough of the industry's greedy exam paid for. Our team of IT professionals comes with years of experience in the IT industry Prior to training CertIQ we worked in test areas where we observed the horrors of the paywall exam preparation system.

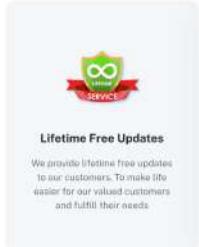
The misuse of the preparation system has left our team disillusioned. And for that reason, we decided it was time to make a difference. We had to make In this way, CertyIQ was created to provide quality materials without stealing from everyday people who are trying to make a living.

## Doubt Support

We have developed a very scalable solution using which we are able to solve 400+ doubts every single day with an average rating of 4.8 out of 5.

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John

October 19, 2022



Thanks you so much for your help. I scored 972 in my exam today. More than 90% were from your PDFs!

October 22, 2022



Passed my exam today with 891 marks. Out of 52 questions, 51 were from certyiq PDFs including Contoso case study.

Thank You certyiq team!

Dana

September 04, 2022



Thanks a lot for this updated AZ-900 Q&A. I just passed my exam and got 974, I followed both of your Az-900 videos and the 6 PDF, the PDFs are very much valid, all answers are correct. Could you please create a similar video/PDF for DP900, your content/PDF's is really awesome. The team did a really good job. Thank You 😊.

Henry Rome

2 months ago



These questions are real and 100 % valid. Thank you so much for your efforts, also your 4 PDFs are awesome, I passed the DP900 exam on 1 Sept. With 968 marks. Thanks a lot, buddy!

Esmaria

2 months ago



Simple easy to understand explanations. To anyone out there wanting to write AZ900, I highly recommend 6 PDF's. Thank you so much, appreciate all your hard work in having such great content. Passed my exam Today - 3 September with 942 score.

Ahamed Shibly

2 months ago



Customer support is realy fast and helpful, I just finished my exam and this video along with the 6 PDF helped me pass! Definitely recommend getting the PDFs. Thank you!

# Microsoft

(PL-300)

Microsoft Power BI Data Analyst

Total: **369 Questions**

Link: <https://certiq.com/papers/microsoft/pl-300>

## Question: 1

HOTSPOT -

You plan to create the Power BI model shown in the exhibit. (Click the Exhibit tab.)



The data has the following refresh requirements:

- ⇒ Customer must be refreshed daily.
- ⇒ Date must be refreshed once every three years.
- ⇒ Sales must be refreshed in near real time.
- ⇒ SalesAggregate must be refreshed once per week.

You need to select the storage modes for the tables. The solution must meet the following requirements:

- ⇒ Minimize the load times of visuals.
- ⇒ Ensure that the data is loaded to the model based on the refresh requirements.

Which storage mode should you select for each table? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Customer:

	▼
DirectQuery	
Dual	
Import	

Date:

	▼
DirectQuery	
Dual	
Import	

Sales:

	▼
DirectQuery	
Dual	
Import	

SalesAggregate:

	▼
DirectQuery	
Dual	
Import	

Answer:

## Answer Area

Customer:

▼
DirectQuery
Dual
Import

Date:

▼
DirectQuery
Dual
Import

Sales:

▼
DirectQuery
Dual
Import

SalesAggregate:

▼
DirectQuery
Dual
Import

### Explanation:

Box 1: Dual -

Customer should use the dual storage mode.

Dual: Tables with this setting can act as either cached or not cached, depending on the context of the query that's submitted to the Power BI dataset. In some cases, you fulfill queries from cached data. In other cases, you fulfill queries by executing an on-demand query to the data source.

Note: You set the Storage mode property to one of these three values: Import, DirectQuery, and Dual.

Box 2: Dual -

You can set the dimension tables (Customer, Geography, and Date) to Dual to reduce the number of limited relationships in the dataset, and improve performance.

**Box 3: DirectQuery -**

Sales should use the DirectQuery storage mode.

DirectQuery: Tables with this setting aren't cached. Queries that you submit to the Power BI dataset "for example, DAX queries" and that return data from

DirectQuery tables can be fulfilled only by executing on-demand queries to the data source. Queries that you submit to the data source use the query language for that data source, for example, SQL.

**Box 4: Import -**

Import: Imported tables with this setting are cached. Queries submitted to the Power BI dataset that return data from Import tables can be fulfilled only from cached data.

**Note:-**

Dual (Composite) Mode:

The dual storage mode is between Import and DirectQuery. It is a hybrid approach. Like importing data, the dual storage mode caches the data in the table. However, it leaves it up to Power BI to determine the best way to query the table depending on the query context.

- 1) Sales Must be Refreshed in Near real time so "Direct Query"
- 2) Sales Aggregate is once per week so "Import" (performance also required)
- 3) Both Date and Customer has relationship with both Sales and SalesAggregate tables so "Dual" because to support performance for DirectQuery(Sales) and Import(SalesAggregate)

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-storage-mode>

**CertyIQ****Question: 2**

You have a project management app that is fully hosted in Microsoft Teams. The app was developed by using Microsoft Power Apps.

You need to create a Power BI report that connects to the project management app.

Which connector should you select?

- A. Microsoft Teams Personal Analytics
- B. SQL Server database
- C. Dataverse
- D. Dataflows

**Answer: C****Explanation:**

Data sources in Power BI Desktop.

The Power Platform category provides the following data connections:

Power BI datasets -

Power BI dataflows -

## Common Data Service (Legacy)

Dataverse -

Dataflows -

Other data sources include Microsoft Teams Personal Analytics (Beta).

You can use the Microsoft Power BI template to import data into Power BI from Project for the web and Project Online. When you're using the template, you're connected to your Microsoft Dataverse instance, where your Microsoft Project web app data is stored.

<https://support.microsoft.com/en-us/office/use-power-bi-desktop-to-connect-with-your-project-data-df4ccca1-68e9-418c-9d0f-022ac05249a2>

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-data-sources>

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### Question: 3

For the sales department at your company, you publish a Power BI report that imports data from a Microsoft Excel file located in a Microsoft SharePoint folder.

The data model contains several measures.

You need to create a Power BI report from the existing data. The solution must minimize development effort.

Which type of data source should you use?

- A. Power BI dataset
- B. a SharePoint folder
- C. Power BI dataflows
- D. an Excel workbook

### Answer: A

#### Explanation:

Power BI dataset

because the case states there is already a report published and the datamodel contains measures. therefore and to be able to use the measures in the datamodel you should connect to the existing dataset (which was created when you published the report) instead of starting from scratch with the files in the SharePoint folder.

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### Question: 4

You import two Microsoft Excel tables named Customer and Address into Power Query. Customer contains the following columns:

- ⇒ Customer ID
- ⇒ Customer Name
- ⇒ Phone
- ⇒ Email Address
- ⇒ Address ID

Address contains the following columns:

- ⇒ Address ID
- ⇒ Address Line 1
- ⇒ Address Line 2

- ⇒ City
- ⇒ State/Region
- ⇒ Country
- ⇒ Postal Code

Each Customer ID represents a unique customer in the Customer table. Each Address ID represents a unique address in the Address table.

You need to create a query that has one row per customer. Each row must contain City, State/Region, and Country for each customer.

What should you do?

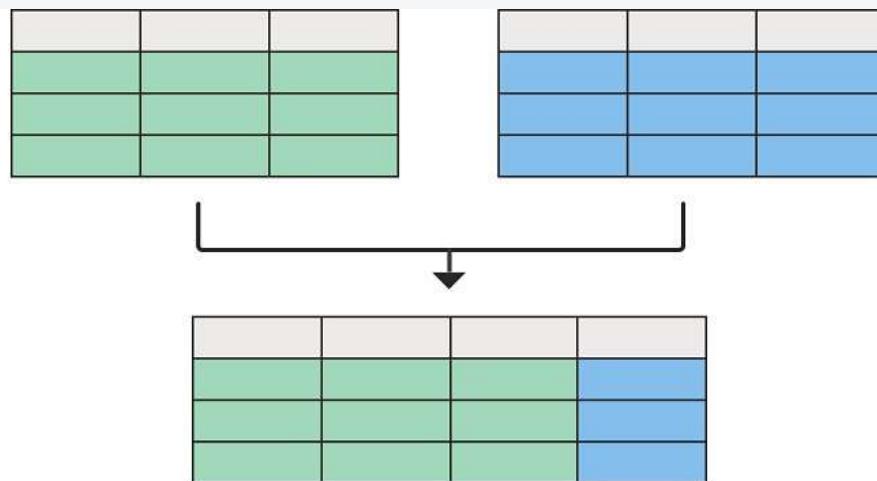
- A. Merge the Customer and Address tables.
- B. Group the Customer and Address tables by the Address ID column.
- C. Transpose the Customer and Address tables.
- D. Append the Customer and Address tables.

#### **Answer: A**

#### **Explanation:**

Remember Merge is JOIN, APPEND is UNION

A merge queries operation joins two existing tables together based on matching values from one or multiple columns. You can choose to use different types of joins, depending on the output you want.



Reference:

<https://docs.microsoft.com/en-us/power-query/merge-queries-overview>

#### **Question: 5**

**CertyIQ**

HOTSPOT -

You have two Azure SQL databases that contain the same tables and columns.

For each database, you create a query that retrieves data from a table named Customer.

You need to combine the Customer tables into a single table. The solution must minimize the size of the data model and support scheduled refresh in powerbi.com.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Option to use to combine the Customer tables:

Append Queries
Append Queries as New
Merge Queries
Merge Queries as New

Action to perform on the original two SQL database queries:

Delete the queries
Disable including the query in report refresh
Disable loading the query to the data model
Duplicate the queries

## Answer:

### Answer Area

Option to use to combine the Customer tables:

Append Queries
Append Queries as New
Merge Queries
Merge Queries as New

Action to perform on the original two SQL database queries:

Delete the queries
Disable including the query in report refresh
Disable loading the query to the data model
Duplicate the queries

## Explanation:

### Box 1: Append Queries as New -

When you have additional rows of data that you'd like to add to an existing query, you append the query.

There are two append options:

- \* Append queries as new displays the Append dialog box to create a new query by appending multiple tables.
- \* Append queries displays the Append dialog box to add additional tables to the current query.

Incorrect: When you have one or more columns that you'd like to add to another query, you merge the queries.

### Box 2: Disable loading the query to the data model

By default, all queries from Query Editor will be loaded into the memory of Power BI Model. You can disable the load for some queries, especially queries that used as intermediate transformation to produce the final query for the model.

Disabling Load doesn't mean the query won't be refreshed, it only means the query won't be loaded into the memory. When you click on Refresh model in Power

BI, or when a scheduled refresh happens even queries marked as Disable Load will be refreshed, but their data will be used as intermediate source for other queries instead of loading directly into the model. This is a very basic performance tuning tip, but very important when your Power BI model grows bigger and bigger.

Reference:

<https://docs.microsoft.com/en-us/power-query/append-queries>

<https://radacad.com/performance-tip-for-power-bi-enable-load-sucks-memory-up>

## Question: 6

CertyIQ

DRAG DROP -

In Power Query Editor, you have three queries named ProductCategory, ProductSubCategory, and Product.

Every Product has a ProductSubCategory.

Not every ProductSubCategory has a parent ProductCategory.

You need to merge the three queries into a single query. The solution must ensure the best performance in Power Query.

How should you merge the tables? To answer, drag the appropriate merge types to the correct queries. Each merge 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.

NOTE: Each correct selection is worth one point.

Select and Place:

Join kinds	Answer Area	Left Table	Right Table	Join Kind
Full outer		Product	ProductSubCategory	Join kind
Inner		ProductSubCategory	ProductCategory	Join kind
Left anti				
Left outer				
Right anti				
Right outer				

## Answer:

Join kinds	Answer Area	Left Table	Right Table	Join Kind
Full outer		Product	ProductSubCategory	Inner
Inner		ProductSubCategory	ProductCategory	Left outer
Left anti				
Left outer				
Right anti				
Right outer				

**Explanation:**

Box 1: Inner -

Every Product has a ProductSubCategory.

A standard join is needed.

One of the join kinds available in the Merge dialog box in Power Query is an inner join, which brings in only matching rows from both the left and right tables.

Box 2: Left outer -

Not every ProductSubCategory has a parent ProductCategory.

One of the join kinds available in the Merge dialog box in Power Query is a left outer join, which keeps all the rows from the left table and brings in any matching rows from the right table.

Reference:

<https://docs.microsoft.com/en-us/power-query/merge-queries-inner> <https://docs.microsoft.com/en-us/power-query/merge-queries-left-outer>

**CertyIQ****Question: 7**

You are building a Power BI report that uses data from an Azure SQL database named erp1. You import the following tables.

Name	Description
Products	Contains the product catalog
Orders	Contains high-level information about orders
Order Line Items	Contains the product ID, quantity, and price details of an order

You need to perform the following analyses:

- ⇒ Orders sold over time that include a measure of the total order value
- Orders by attributes of products sold

The solution must minimize update times when interacting with visuals in the report. What should you do first?

- A. From Power Query, merge the Order Line Items query and the Products query.
- B. Create a calculated column that adds a list of product categories to the Orders table by using a DAX function.
- C. Calculate the count of orders per product by using a DAX function.
- D. From Power Query, merge the Orders query and the Order Line Items query.

**Answer: D****Explanation:**

D. It's the Header/Detail Schema, and the most optimal way is to flatten the header into the detail table.

Source:

<https://www.sqlbi.com/articles/header-detail-vs-star-schema-models-in-tabular-and-power-bi/>

GPT: Merging the Orders query and the Order Line Items query in Power Query will allow you to create a

single query that combines the necessary data from the different tables. This will make it easier and more efficient to perform the required analyses, as you will have all the information you need in one place.

--- PBI will do the best aggregation base on Star Schema model, we now have 1 Fact table (Order Line Items) and 2 Dim tables (Products, Orders). Orders has common field with Products (ProductID), and pretty sure time series field (OrderDate); Orders Line Items has Price and Quanity.

--- We need summarize some values like "price" and "quantity" over-time by attributes product. But we only have common field in Dim table (Orders) so we need to merge Dim (Orders) and Fact (Order Line Items) to new single Fact table to design the right Star Schema model.

=> So that D is correct

## Question: 8

CertyIQ

You have a Microsoft SharePoint Online site that contains several document libraries. One of the document libraries contains manufacturing reports saved as Microsoft Excel files. All the manufacturing reports have the same data structure. You need to use Power BI Desktop to load only the manufacturing reports to a table for analysis. What should you do?

- A. Get data from a SharePoint folder and enter the site URL Select Transform, then filter by the folder path to the manufacturing reports library.
- B. Get data from a SharePoint list and enter the site URL. Select Combine & Transform, then filter by the folder path to the manufacturing reports library.
- C. Get data from a SharePoint folder, enter the site URL, and then select Combine & Load.
- D. Get data from a SharePoint list, enter the site URL, and then select Combine & Load.

## Answer: A

### Explanation:

We have to import Excel files from SharePoint, so we need the connector SharePoint folder which is used to get access to the files stored in the library. SharePoint list is a collection of content that has rows and columns (like a table) and is used for task lists, calendars, etc.

Since we have to filter only on manufacturing reports, we have to select Transform and then filter by the corresponding folder path.

## Question: 9

CertyIQ

DRAG DROP -

You have a Microsoft Excel workbook that contains two sheets named Sheet1 and Sheet2. Sheet1 contains the following table named Table1.

Products
abc
def
ghi
JKL
mno

Sheet2 contains the following table named Table2.

Products
abc
xyz
tuv
mno
pqr
stu

You need to use Power Query Editor to combine the products from Table1 and Table2 into the following table that has one column containing no duplicate values.

Products
abc
xyz
tuv
mno
pqr
stu
def
ghi
JKL

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.

Select and Place:

**Actions**

- From Power Query Editor, remove errors from the table.
- From Power Query Editor, select **Table1**, and then select **Remove duplicates**.
- From Power Query Editor, merge Table1 and Table2.
- From Power BI Desktop, import the data from Excel, and select **Table1** and **Table2**.
- From Power Query Editor, append Table2 to Table1.

**Answer Area****Answer:****Actions**

- From Power Query Editor, remove errors from the table.
- From Power Query Editor, select **Table1**, and then select **Remove duplicates**.
- From Power Query Editor, merge Table1 and Table2.
- From Power BI Desktop, import the data from Excel, and select **Table1** and **Table2**.
- From Power Query Editor, append Table2 to Table1.

**Answer Area**

- From Power BI Desktop, import the data from Excel, and select **Table1** and **Table2**.
- From Power Query Editor, append Table2 to Table1.
- From Power Query Editor, select **Table1**, and then select **Remove duplicates**.

**Explanation:**

From Power BI Desktop, import data from Excel, and select Table 1 and Table 2.

From Power Query Editor, append Table 2 to Table 1.

From Power Query Editor Select Table 1, and then Select Remove duplicates.

**Reference:**

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-shape-and-combine-data>

**Question: 10**
**CertyIQ**

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59. You need to be able to analyze the complaints by the logged date and use a built-in date hierarchy. What should you do?

- A. Apply a transformation to extract the last 11 characters of the Logged column and set the data type of the new column to Date.
- B. Change the data type of the Logged column to Date.
- C. Split the Logged column by using at as the delimiter.
- D. Apply a transformation to extract the first 11 characters of the Logged column.

**Answer: C****Explanation:**

You should split the Logged column by using "at" as the delimiter. This will allow you to separate the date and time into separate columns, which will enable you to analyze the complaints by date and use a built-in date hierarchy. Alternatively, you could also use a transformation to extract the date and time from the Logged column and set the data type of the new columns to Date and Time, respectively. Option A is incorrect because it only extracts the last 11 characters of the Logged column, which would not include the date. Option B is incorrect because the data in the Logged column is in a non-standard date format and cannot be directly converted to the Date data type. Option D is incorrect because it only extracts the first 11 characters of the

Logged column, which would not include the time.

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### Question: 11

You have a Microsoft Excel file in a Microsoft OneDrive folder.

The file must be imported to a Power BI dataset.

You need to ensure that the dataset can be refreshed in powerbi.com.

Which two connectors can you use to connect to the file? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Excel Workbook
- B. Text/CSV
- C. Folder
- D. SharePoint folder
- E. Web

**Answer: DE**

**Explanation:**

We can import an excel file from multiple connectors (excel workbook, folder, web, share point) but if we must refresh the data from the service with no gateways then We must use web and share point connectors.

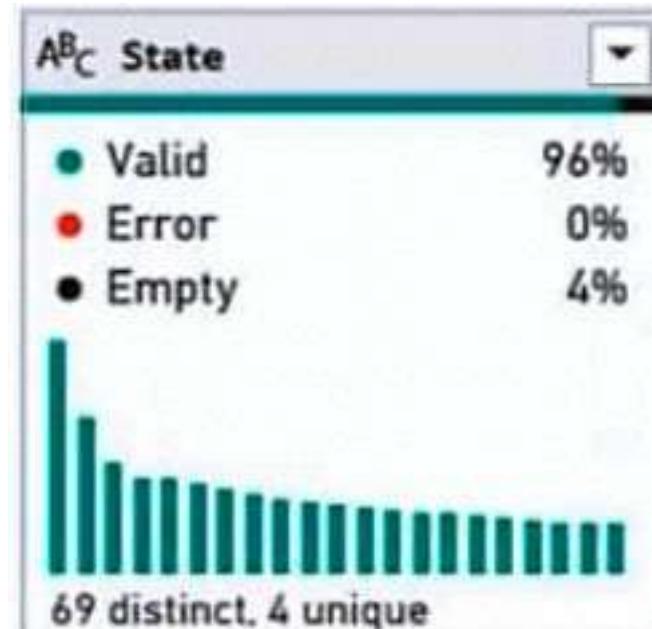
### Question: 12

CertyIQ

HOTSPOT -

You are profiling data by using Power Query Editor.

You have a table named Reports that contains a column named State. The distribution and quality data metrics for the data in State is 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 are [answer choice] different values in State including nulls.

4
65
69
73

There are [answer choice] non-null values that occur only once in State.

4
65
69
73

Answer:

## Answer Area

There are [answer choice] different values in State including nulls.

4
65
69
73

There are [answer choice] non-null values that occur only once in State.

4
65
69
73

Explanation:

Box 1: 69 -

69 distinct/different values.

Note: Column Distribution allows you to get a sense for the overall distribution of values within a column in your data previews, including the count of distinct values (total number of different values found in a given column) and unique values (total number of values that only appear once in a given column).

Box 2: 4 -

Reference:

<https://systemmanagement.ro/2018/10/16/power-bi-data-profiling-distinct-vs-unique/>

**Question: 13****HOTSPOT -**

You have two CSV files named Products and Categories.

The Products file contains the following columns:

- » ProductID
- » ProductName
- » SupplierID
- » CategoryID

The Categories file contains the following columns:

- » CategoryID
- » CategoryName
- » CategoryDescription

From Power BI Desktop, you import the files into Power Query Editor.

You need to create a Power BI dataset that will contain a single table named Product. The Product will table includes the following columns:

- » ProductID
- » ProductName
- » SupplierID
- » CategoryID
- » CategoryName
- » CategoryDescription

How should you combine the queries, and what should you do on the Categories query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Combine the queries by performing a:

Append
Merge
Transpose

On the Categories query:

Delete the query.
Disable the query load.
Exclude the query from report refresh.

**Answer:**

**Answer Area**

Combine the queries by performing a:

Append
Merge
Transpose

On the Categories query:

Delete the query.
Disable the query load.
Exclude the query from report refresh.

**Explanation:**

Box 1: Merge -

There are two primary ways of combining queries: merging and appending.

- \* When you have one or more columns that you'd like to add to another query, you merge the queries.
- \* When you have additional rows of data that you'd like to add to an existing query, you append the query.

Box 2: Disable the query load -

Managing loading of queries -

In many situations, it makes sense to break down your data transformations in multiple queries. One popular example is merging where you merge two queries into one to essentially do a join. In this type of situations, some queries are not relevant to load into Desktop as they are intermediate steps, while they are still required for your data transformations to work correctly. For these queries, you can make sure they are not loaded in Desktop by un-checking 'Enable load' in the context menu of the query in Desktop or in the Properties screen:

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-shape-and-combine-data>

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-include-in-report-refresh>

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### Question: 14

You have an Azure SQL database that contains sales transactions. The database is updated frequently. You need to generate reports from the data to detect fraudulent transactions. The data must be visible within five minutes of an update.

How should you configure the data connection?

- A. Add a SQL statement.
- B. Set the Command timeout in minutes setting.
- C. Set Data Connectivity mode to Import.
- D. Set Data Connectivity mode to DirectQuery.

Answer: D

Explanation:

DirectQuery: No data is imported or copied into Power BI Desktop. For relational sources, the selected tables and columns appear in the Fields list. For multi-dimensional sources like SAP Business Warehouse, the dimensions and measures of the selected cube appear in the Fields list. As you create or interact with a visualization, Power BI Desktop queries the underlying data source, so you're always viewing current data.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-use-directquery>

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### Question: 15

DRAG DROP -

You have a folder that contains 100 CSV files.

You need to make the file metadata available as a single dataset by using Power BI. The solution must NOT store the data of the CSV files.

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.

Select and Place:

**Actions**

- From Power BI Desktop, select **Get Data**, and then select Folder.
- From Power Query Editor, expand the Attributes column.
- From Power Query Editor, remove the Content column.
- From Power Query Editor, remove the Attributes column.
- From Power BI Desktop, select Get Data, and then select Text/CSV.
- From Power Query Editor, combine the Content column.

**Answer Area****Answer:****Actions**

- From Power BI Desktop, select **Get Data**, and then select Folder.
- From Power Query Editor, expand the Attributes column.
- From Power Query Editor, remove the Content column.
- From Power Query Editor, remove the Attributes column.
- From Power BI Desktop, select Get Data, and then select Text/CSV.
- From Power Query Editor, combine the Content column.

**Answer Area**

- From Power BI Desktop, select **Get Data**, and then select Folder.
- From Power Query Editor, remove the Content column.
- From Power Query Editor, expand the Attributes column.

**Explanation:**

1. Get data and select folder.
2. Remove the content column
3. Expand the attributes column.

**Get Data from the folder:**

This is the first step where you connect to the folder that contains your CSV files. Power BI will recognize all the CSV files in the folder and generate a dataset with both file metadata and content.

**Remove Content Column:**

After you load the data from the folder, Power BI typically presents two columns: Content (which contains the actual data of the CSV files) and Attributes (which contains the metadata). In this step, you would remove the Content column to ensure you're only working with the metadata (e.g., file names, paths, creation dates).

**Expand Attributes:**

The Attributes column contains a record with metadata for each file. To make the metadata more accessible and usable in your report, you'll need to expand this column. Expanding will break the record down into individual metadata fields (e.g., file name, file path, etc.), so that you can work with these attributes as separate columns in Power Query.

## Question: 16

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A business intelligence (BI) developer creates a dataflow in Power BI that uses DirectQuery to access tables from an on-premises Microsoft SQL server. The Enhanced Dataflows Compute Engine is turned on for the dataflow. You need to use the dataflow in a report. The solution must meet the following requirements:

- ⇒ Minimize online processing operations.
- ⇒ Minimize calculation times and render times for visuals.
- ⇒ Include data from the current year, up to and including the previous day.

What should you do?

- A. Create a dataflows connection that has DirectQuery mode selected.
- B. Create a dataflows connection that has DirectQuery mode selected and configure a gateway connection for the dataset.
- C. Create a dataflows connection that has Import mode selected and schedule a daily refresh.
- D. Create a dataflows connection that has Import mode selected and create a Microsoft Power Automate solution to refresh the data hourly.

### Answer: C

#### Explanation:

A daily update is adequate.

When you set up a refresh schedule, Power BI connects directly to the data sources using connection information and credentials in the dataset to query for updated data, then loads the updated data into the dataset. Any visualizations in reports and dashboards based on that dataset in the Power BI service are also updated.

#### Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-desktop-file-local-drive>

## Question: 17

CertyIQ

DRAG DROP

-

You publish a dataset that contains data from an on-premises Microsoft SQL Server database.

The dataset must be refreshed daily.

You need to ensure that the Power BI service can connect to the database and refresh the dataset.

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

Add the dataset owner to the data source.

Configure an on-premises data gateway.

Configure a virtual network data gateway.

Add a data source.

Configure a scheduled refresh.

## Answer Area

1

2

3

4

Answer:

## Answer Area

1 Configure an on-premises data gateway.

2 Add a data source.

3 Add the dataset owner to the data source.

4 Configure a scheduled refresh.

Explanation:

Configure an on premises data gateway.

Add a data source.

Add the dataset owner to the data source.

Configure a scheduled refresh.

Set up an on-premises data gateway: Download and install an on-premises data gateway on a machine that has access to the SQL Server database. Make sure that the gateway is registered to the same workspace as the dataset.

Configure a data source: In the Power BI service, go to the dataset settings, and select the data source. Then, enter the necessary details, including the server name, database name, and credentials.

Schedule refresh: In the dataset settings, go to the "Scheduled refresh" tab, and set up a refresh schedule. Ensure that the gateway is selected as the "Data source credentials" option.

Publish the dataset: Finally, publish the dataset to the Power BI service. The dataset will be refreshed according to the schedule you set up, and the on-premises data gateway will allow the service to connect to the SQL Server database.

### Question: 18

CertyIQ

You attempt to connect Power BI Desktop to a Cassandra database.

From the Get Data connector list, you discover that there is no specific connector for the Cassandra database.

You need to select an alternate data connector that will connect to the database.

Which type of connector should you choose?

- A. Microsoft SQL Server database
- B. ODBC
- C. OLE DB
- D. OData

### Answer: B

#### Explanation:

B is Correct because, B'cause it allows you to connect to data sources that aren't identified in the Get Data lists.

The ODBC connector lets you import data from any third-party ODBC driver simply by specifying a Data Source Name (DSN) or a connection string. As an option, you can also specify a SQL statement to execute against the ODBC driver.

List details a few examples of data sources to which Power BI Desktop can connect by using the generic ODBC interface:

<https://learn.microsoft.com/en-us/power-bi/connect-data/desktop-connect-using-generic-interfaces>

## Question: 19

DRAG DROP

You receive annual sales data that must be included in Power BI reports.

From Power Query Editor, you connect to the Microsoft Excel source shown in the following exhibit.

	Month	MonthNumber	2019	2020	2021
1	Jan	1	345	5526	3456
2	Feb	2	758	773	0
3	Mar	3	37763	570	null
4	Apr	4	8364	9417	null
5	May	5	58256	276	null
6	June	6	6722	235	null
7	July	7	55225	6297	null
8	Aug	8	673	63	null
9	Sep	9	552	357	null
10	Oct	10	7838	24214	null
11	Nov	11	83544	257	null
12	Dec	12	32455	389	null

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

- Visualizes the Sales value over a period of years and months
- Adds a slicer for the month
- Adds a slicer for the year

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

Select the Month and MonthNumber columns.

1

Select Unpivot other columns.

2

Rename the Attribute column as Year and the Value column as Sales.

3

Select the 2019, 2020, and 2021 columns.



Select Transpose.

Answer:

## Answer Area

- 1 Select the Month and MonthNumber columns.
- 2 Select Unpivot other columns.
- 3 Rename the Attribute column as Year and the Value column as Sales.

### Explanation:

Select the Month and Month Number Columns.

Select Unpivot Other Columns

Rename the Attribute Column as Year and the value Column as Sales.

Action 1: Select the Month and MonthNumber Columns. These columns will be used for the slicers to filter the data by month.

Action 2: Select unpivot other columns. This action will transform the 2019, 2020, and 2021 columns into rows, creating a column called "Attribute" that contains the years and a column called "Value" that contains the sales data. This step makes the data more suitable for visualization and filtering by year.

Action 3: Rename the Attribute column as Year and the value column as sales. Renaming the columns provides a more descriptive and meaningful structure for your data.

After performing these actions, your data will be in a format that allows you to create visuals and add slicers for the month and year in Power BI.

### Question: 20

CertyIQ

HOTSPOT

-

You are using Power BI Desktop to connect to an Azure SQL database.

The connection is configured as shown in the following exhibit.

## SQL Server database

Server  mydb.database.windows.net

Database (optional)  
 db1

Data Connectivity mode  Import  
 DirectQuery

### Advanced options

Command timeout in minutes (optional)

SQL statement (optional, requires database)

- Include relationship columns
- Navigate using full hierarchy
- Enable SQL Server Failover support

OK

Cancel

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 solution is worth one point.

## Answer Area

The default timeout for the connection from Power BI Desktop to the database will be

▼

unlimited  
one minute  
10 minutes

The Navigator will display

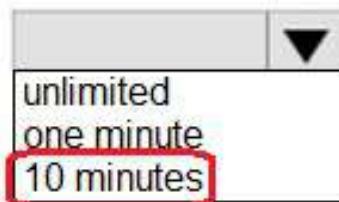
▼

all the tables  
only tables that contain data  
only tables that contain hierarchies

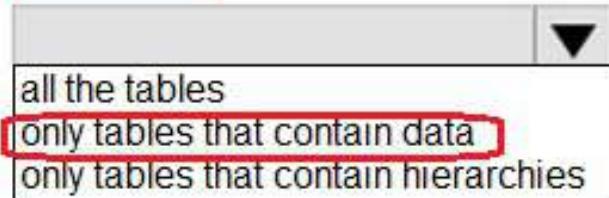
Answer:

## Answer Area

The default timeout for the connection from Power BI Desktop to the database will be



The Navigator will display



### Explanation:

10 minutes.

Only tables that Contain data.

Command timeout in minutes: If your connection lasts longer than 10 minutes (the default timeout), you can enter another value in minutes to keep the connection open longer. This option is only available in Power Query Desktop.

Navigate using full hierarchy: If checked, the navigator displays the complete hierarchy of tables in the database you're connecting to. If cleared, the navigator displays only the tables whose columns and rows contain data.

Include relationship columns: If checked, includes columns that might have relationships to other tables. If this box is cleared, you won't see those columns.

<https://learn.microsoft.com/en-us/power-query/connectors/azure-sql-database>

## Question: 21

CertyIQ

HOTSPOT

You have the Azure SQL databases shown in the following table.

Name	Stage	Server URL
db-powerbi-dev	Development	dev.database.windows.net
db-powerbi-uat	Test	uat.database.windows.net
db-powerbi-prod	Production	prod.database.windows.net

You plan to build a single PBIX file to meet the following requirements:

- Data must be consumed from the database that corresponds to each stage of the development lifecycle.
- Power BI deployment pipelines must NOT be used.
- The solution must minimize administrative effort.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Create:

	▼
One parameter	
Two parameters	
Three parameters	

Parameter type:

	▼
Text	
True/False	
Decimal number	

Answer:

## Answer Area

Create:

One parameter

Two parameters

Three parameters

Parameter type:

Text

True/False

Decimal number

### Explanation:

To meet the requirements specified, we can use a single parameter in the PBIX file that controls which database is used for data consumption based on the stage of the development lifecycle.

We can use a Text parameter type in Power BI to achieve this. The parameter can be used to switch between the different database connections when a user interacts with the report. The text parameter could include values such as "Development", "Staging", and "Production", which correspond to the different databases shown in the table.

The parameter can then be used in the queries to dynamically filter the data based on the selected stage of the development lifecycle. By using a single parameter, we can minimize administrative effort and ensure that the report works with each stage of the development lifecycle.

## Question: 22

CertyIQ

You are creating a query to be used as a Country dimension in a star schema.

A snapshot of the source data is shown in the following table.

Country	City
USA	Seattle
USA	New York
USA	Denver
UK	Manchester
UK	London
Japan	Tokyo
Brazil	Rio
Brazil	Sao Paulo

You need to create the dimension. The dimension must contain a list of unique countries.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Delete the Country column.
- B. Remove duplicates from the table.
- C. Remove duplicates from the City column.
- D. Delete the City column.
- E. Remove duplicates from the Country column.

**Answer: DE**

**Explanation:**

We all need the dimension to contain the list of unique countries. so we delete the city column because we don't need it and remove the duplicates from the country column. The correct answer is DE

The table has to contain unique values for "Country" column, so

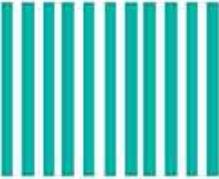
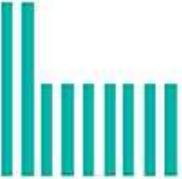
- delete the city column --> in fact this column is not requested
- Remove duplicates from the Country column

### Question: 23

CertyIQ

DRAG DROP

You use Power Query Editor to preview the data shown in the following exhibit.

ABC SKU	1 <sup>2</sup> <sub>3</sub> price	ABC 123 discount
● Valid ● Error ● Empty	100% 0% 0%	100% 0% 0%
		
11 distinct, 11 unique	9 distinct, 7 unique	
P00001	100	0.08
P00002	150	0.03
P00003	130	Error
P00004	200	0.06
P00005	80	Error
P00006	350	Error
P00007	100	Error
P00008	200	0.05
P00009	135	Error
P00010	90	Error
P00011	120	Error

You need to clean and transform the query so that all the rows of data are maintained, and error values in the discount column are replaced with a discount of 0.05. The solution must minimize administrative effort.

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

Select the **discount** column.

Select the **price** column.

For the discount column, change Data Type to **Decimal Number**.

For the discount column, change Data Type to **Whole Number**.

Select **Replace Errors** to replace each error value with 0.05.

#### Answer Area



**Answer:**

Actions	Answer Area
Select the <b>discount</b> column.	Select the <b>discount</b> column.
Select the <b>price</b> column.	Select <b>Replace Errors</b> to replace each error value with 0.05.
For the discount column, change Data Type to <b>Decimal Number</b> .	(C) For the discount column, change Data Type to <b>Decimal Number</b> .
For the discount column, change Data Type to <b>Whole Number</b> .	(D)
Select <b>Replace Errors</b> to replace each error value with 0.05.	

### Explanation:

Select the discount Column

Select Replace Errors to replace each error value with 0.05

For the discount column ,Change Data Type to Decimal Number.

- **Step 1: Select the "discount" column.**

- This step narrows the actions to the relevant column (discount). No changes should be applied to unrelated columns like "price."
- Without selecting the correct column, subsequent operations would either fail or affect unintended data.

- **Step 2: Replace Errors to replace each error value with 0.05 .**

- This action is critical to ensure that error rows in the **discount** column are resolved.
- Replacing the errors before converting the data type ensures that the replacement value ( 0.05 ) is valid and won't cause further issues during transformation.
- Skipping this step would leave the column with unresolved errors, making it incomplete.

- **Step 3: Change Data Type to Decimal Number.**

- Once errors are replaced, changing the data type ensures the column has consistent formatting.
- "Decimal Number" is the appropriate data type for a **discount** field, as it may include fractional values.
- If this step were performed before handling errors, Power Query could fail or generate additional errors due to invalid data formats.

### Question: 24

HOTSPOT

CertyIQ

You attempt to use Power Query Editor to create a custom column and receive the error message shown in the following exhibit.

The screenshot shows the Power Query Editor interface with a yellow error bar at the top. The error message is: "Expression.Error: We cannot apply operator & to types Text and Number." Below the message, it says "Details:" followed by "Operator=&" and "Left=A" and "Right=1".

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

The error is caused by [answer choice].

▼
error values in the source data mismatched data types NULL values

The desired outcome of the custom column is [answer choice].

▼
1A A&1 A1

Answer:

### Answer Area

The error is caused by [answer choice].

▼
error values in the source data mismatched data types NULL values

The desired outcome of the custom column is [answer choice].

▼
1A A&1 A1

Explanation:

mismatched data types

A1

Mismatched data types and A1 are the correct answers.

The custom column expression is trying to concatenate (use the "&" operator) a text value and a number value, which are mismatched data types.

In this case, the left side of the operator is a text value (e.g., "A"), and the right side is a number value (e.g., 1).

To achieve the desired outcome of the custom column as "A1", you should ensure that both sides of the "&" operator have the same data type, which is text in this case.

CertyIQ

### Question: 25

From Power Query Editor, you attempt to execute a query and receive the following error message.

Datasource.Error: Could not find file.

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

NOTE: Each correct selection is worth one point.

- A.You do not have permissions to the file.
- B.An incorrect privacy level was used for the data source.
- C.The file is locked.
- D.The referenced file was moved to a new location.

**Answer: AD**

**Explanation:**

A and D. A if PBI cant find the file in the given path and D due this.

<https://community.fabric.microsoft.com/t5/Power-Query/SOLVED-Datasource-error-could-not-find-file/td-p/252703>

CertyIQ

### Question: 26

You have data in a Microsoft Excel worksheet as shown in the following table.

	A	B	C
1	SKU	price	discount
2	P00001	100	0.08
3	P00002	150	0.03
4	P00003	130	#DIV/0!
5	P00004	200	0.06
6	P00005	80	#NAME?
7	P00006	350	#N/A
8	P00007	100	#NULL!
9	P00008	200	0.05
10	P00009	135	#NUM!
11	P00010	90	#REF!
12	P00011	120	#VALUE!

You need to use Power Query to clean and transform the dataset. The solution must meet the following requirements:

- If the discount column returns an error, a discount of 0.05 must be used.
- All the rows of data must be maintained.
- Administrative effort must be minimized.

What should you do in Power Query Editor?

- Select Replace Errors.
- Edit the query in the Query Errors group.
- Select Remove Errors.
- Select Keep Errors.

**Answer: A**

**Explanation:**

A. Select Replace Errors - is correct. C&D will remove some rows Option B, "Edit the query in the Query Errors

group", would technically also allow to achieve the required result. However, this would not be the optimal solution given the constraints provided in the scenario, which specifies that administrative effort must be minimized.

CertyIQ

### Question: 27

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

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

What should you do?

- A.Apply the Parse function from the Data transformations options to the Logged column.
- B.Change the data type of the Logged column to Date.
- C.Split the Logged column by using at as the delimiter.
- D.Create a column by example that starts with 2018-12-31.

### Answer: C

#### Explanation:

Split the Logged column by using at as the delimiter.

You should split the Logged column by using "at" as the delimiter. This will allow you to separate the date and time into separate columns, which will enable you to analyze the complaints by date and use a built-in date hierarchy. Alternatively, you could also use a transformation to extract the date and time from the Logged column and set the data type of the new columns to Date and Time, respectively. Option A is incorrect because it only extracts the last 11 characters of the Logged column, which would not include the date. Option B is incorrect because the data in the Logged column is in a non-standard date format and cannot be directly converted to the Date data type. Option D is incorrect because it only extracts the first 11 characters of the Logged column, which would not include the time.

CertyIQ

### Question: 28

DRAG DROP

-

You have two Microsoft Excel workbooks in a Microsoft OneDrive folder.

Each workbook contains a table named Sales. The tables have the same data structure in both workbooks.

You plan to use Power BI to combine both Sales tables into a single table and create visuals based on the data in the table. The solution must ensure that you can publish a separate report and dataset.

Which storage mode should you use for the report file and the dataset file? To answer, drag the appropriate modes to the correct files. Each mode 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.

NOTE: Each correct selection is worth one point.

## Storage modes

DirectQuery

Import

LiveConnect

Push

## Answer Area

Report file: Storage mode

Dataset file: Storage mode

Answer:

## Answer Area

Report file: Import

Dataset file: DirectQuery

Explanation:

Report file: Import.

In Power BI, when you import data, it means that the data is loaded into the Power BI Desktop file. In this case, you would import the data from both Excel workbooks into your Power BI Desktop report file. This allows you to create visuals and reports based on the imported data. Importing the data ensures that you can work with the data even when you're not connected to OneDrive.

Dataset: Direct Query.

To keep the data in OneDrive and maintain a live connection to the source, you should use Direct Query for the dataset. Direct Query allows Power BI to retrieve and query data from the original data source (in this case, the Excel workbooks in OneDrive) in real-time without importing it into the dataset. This ensures that your dataset is always up-to-date and reflects changes made to the source data.

## Question: 29

CertyIQ

You use Power Query to import two tables named Order Header and Order Details from an Azure SQL database. The Order Header table relates to the Order Details table by using a column named Order ID in each table.

You need to combine the tables into a single query that contains the unique columns of each table.

What should you select in Power Query Editor?

A. Merge queries

- B.Combine files
- C.Append queries

**Answer: A**

**Explanation:**

A. Merge queries.

The "Merge queries" option in Power Query Editor allows you to combine two or more tables by matching rows based on a common column (in this case, the Order ID column). This operation is similar to performing a SQL JOIN, where you can include columns from both tables in the resulting combined query

**Question: 30**

**CertyIQ**

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

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

What should you do?

- A.Apply a transformation to extract the last 11 characters of the Logged column and set the data type of the new column to Date.
- B.Change the data type of the Logged column to Date.
- C.Split the Logged column by using at as the delimiter.
- D.Apply the Parse function from the Date transformations options to the Logged column.

**Answer: C**

**Explanation:**

Split the Logged column by using at as the delimiter.

By **splitting** the "Logged" column using "at" as the delimiter, you separate the date and time into two distinct columns.

The first column would contain the **date** (2018-12-31).

The second column would contain the **time** (08:59).

Once you have the date part isolated, you can change its **data type to Date** in Power BI.

This transformation allows you to use the **date** part for analysis (e.g., creating date hierarchies), as Power BI recognizes it as a valid **date** data type.

**Why Option C Works Well:**

**Splitting** ensures that you isolate the date portion in a **cleaner format** that Power BI can understand and handle properly for analysis.

By setting the **date column** to a Date data type, you enable the **built-in date hierarchy** for analyzing complaints by day, month, quarter, etc.

The time portion can be discarded or kept for further analysis (e.g., if you wanted to analyze complaints by time of day).

#### Why Option D (Parse Function) Isn't Ideal in This Case:

The **Parse function** is often useful for converting recognized date/time formats into proper date types.

However, since the "Logged" column has non-standard text ("at") in the middle of the date-time format, the **Parse function** might not work as smoothly or effectively compared to splitting the column by the "at" delimiter, which directly handles the non-standard format.

### Question: 31

CertyIQ

HOTSPOT

-

You have a folder that contains 50 JSON files.

You need to use Power BI Desktop to make the metadata of the files available as a single dataset. The solution must NOT store the data of the JSON files.

Which type of data source should you use, and which transformation should you perform? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

**Data source type:**

	▼
Folder	
JSON	
Text/CSV	

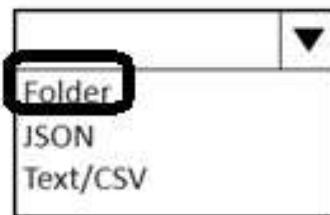
**Transformation:**

▼
Combine the files of the Content column. Delete the Attribute column. Delete the Content column. Expand the Attribute column.

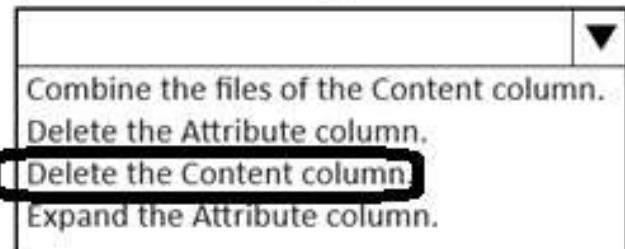
**Answer:**

## Answer Area

Data source type:



Transformation:



### Explanation:

Data source type: Folder

Transformation: Delete the Content column.

This approach will allow you to access the metadata for all the JSON files in the folder without importing the actual data from the JSON files into the dataset.

## Question: 32

CertyIQ

You have a PBIX file that imports data from a Microsoft Excel data source stored in a file share on a local network.

You are notified that the Excel data source was moved to a new location.

You need to update the PBIX file to use the new location.

What are three ways to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.From the Datasets settings of the Power BI service, configure the data source credentials.
- B.From the Data source settings in Power BI Desktop, configure the file path.
- C.From Current File in Power BI Desktop, configure the Data Load settings.
- D.From Power Query Editor, use the formula bar to configure the file path for the applied step.
- E.From Advanced Editor in Power Query Editor, configure the file path in the M code.

### Answer: BDE

### Explanation:

B.From the Data source settings in Power BI Desktop, configure the file path.

D.From Power Query Editor, use the formula bar to configure the file path for the applied step.

E.From Advanced Editor in Power Query Editor, configure the file path in the M code.

1. B. From the Data source settings in Power BI Desktop, configure the file path.
  - Power BI Desktop provides an option to edit the data source settings, where you can modify the file path of the Excel data source.
  - When the file is moved to a new location, updating the file path ensures that Power BI can locate and load the data from the new location.
2. D. From Power Query Editor, use the formula bar to configure the file path for the applied step.
  - If the data source is referenced in the Power Query Editor, you can modify the file path directly in the formula bar for the step that references the Excel file.
  - This method works well if the data load step is already applied, and you need to point to the new file path in the query.
3. E. From Advanced Editor in Power Query Editor, configure the file path in the M code.
  - In Advanced Editor within Power Query Editor, you can directly modify the M code used to define the data source.
  - If the file path was hardcoded in the M code, you can update it manually to point to the new location.

#### Why the Other Options Are Incorrect:

##### A. From the Datasets settings of the Power BI service, configure the data source credentials.

This option is related to managing authentication and credentials to access the data source (e.g., user permissions or authentication methods), but it does not handle the file path or location change.

It's useful for cloud-based sources, but for local network data sources, the file path needs to be updated within Power BI Desktop or the Power Query Editor.

##### C. From Current File in Power BI Desktop, configure the Data Load settings.

The Current File option in Power BI Desktop allows you to change data load settings, but it does not address the file path for an Excel data source. This setting is more related to options like whether to import or load data from the current file into the model, rather than specifying the path of the Excel file.

#### Summary:

To update the file path for the Excel data source after it has been moved:

**B, D, and E** are the appropriate solutions, as they allow you to configure the new file path within the data source settings, Power Query Editor, or M code.

You have a Power BI semantic model that contains the data sources shown in the following table.

Name	Description
Employee review data	Contains sensitive information Must <b>NOT</b> be folded into any other data sources
Sales opportunities	Contains less sensitive information Must only be available internally

You need to configure the privacy levels of the data sources.

What should you configure for each data source? To answer, select the appropriate options in the answer area.

NOTE: Each correct answer is worth one point.

## Answer Area

Employee review data:

- None
- Organizational
- Private
- Public

Sales opportunities:

- None
- Organizational
- Private
- Public

Answer:

## Answer Area

Employee review data:

None  
Organizational  
**Private**  
Public

Sales opportunities:

None  
**Organizational**  
Private  
Public

### Explanation:

Private.

Organizational.

- **Employee Review Data:** This data source likely contains sensitive information. Therefore, it's appropriate to set its privacy level to **Private** to ensure confidentiality.
- **Sales Opportunities Data:** While this data is internal, it may not be as sensitive as employee reviews. Setting its privacy level to **Organizational** allows sharing within the organization while maintaining necessary security measures.

The consensus among contributors is that assigning the **Private** privacy level to the Employee Review Data and **Organizational** to the Sales Opportunities Data is the correct approach. This configuration helps maintain data security and compliance within Power BI.

## Question: 34

CertyIQ

You plan to use Power BI Desktop to create a bug tracking dashboard that will pull data from Analytics in Azure DevOps.

From Power BI Desktop, you need to configure a data connector to authenticate to Azure DevOps. The solution must meet the following requirements:

- Use Analytics views.
- Filter data from the cloud.

Which connector should you use?

A.OData queries

B.Azure DevOps (Boards only)

C.Azure DevOps Server (Boards only)

D.OData Feed

**Answer: B**

**Explanation:**

**Connector Choice: Azure DevOps (Boards only):**

This connector is designed to connect **Power BI Desktop** to **Azure DevOps Analytics views**, which is explicitly mentioned in the requirements.

It allows filtering data directly from the cloud using Analytics views, meeting both key requirements.

**Key Requirements Addressed:**

**Use Analytics views:** The **Azure DevOps (Boards only)** connector directly supports Analytics views in Azure DevOps, enabling structured access to work items and tracking data.

**Filter data from the cloud:** The connector allows filtering and querying data without the need to download or process large datasets locally.

**Why Other Options Are Incorrect:**

**A. OData queries:**

While OData queries can pull data from Azure DevOps, they do not natively support Analytics views, which is a specific requirement in this scenario.

**C. Azure DevOps Server (Boards only):**

This connector is intended for **on-premises Azure DevOps Server** (formerly known as TFS), not for Azure DevOps Services in the cloud.

Since the requirement mentions pulling data from the cloud, this is not suitable.

**D. OData Feed:**

The OData Feed connector is generic and does not directly integrate with Azure DevOps Analytics views.

It requires more manual effort to configure queries and lacks built-in optimization for Analytics views.

**Summary:**

The **Azure DevOps (Boards only)** connector is the most appropriate option because it directly supports **Analytics views** and provides the ability to filter data from the cloud efficiently.

**Question: 35**

HOTSPOT

-

You use Power Query Editor to preview the data shown in the following exhibit.

**CertyIQ**

A <sup>B</sup> Column1	A <sup>B</sup> Column2	A <sup>B</sup> Column3	A <sup>B</sup> Column4
 10 distinct, 9 unique	 10 distinct, 9 unique	 10 distinct, 9 unique	 8 distinct, 5 unique
1			
2			
3 metric_order	metric	actual	goal
4 1	Project Percent Complete	55	60
5 2	On-Time Task Completion	97	100
6 3	Promised Requirements Met	92	100
7 5	Costs	1,570,250	1,580,000
8 4	Team Utilization Rate	110	95
9 6	Customer Satisfaction Index	78	90
10 7	Team Satisfaction Index	91	90
11 8	Post-Deployment Support Hours	100	85

You confirm that the data will always start on row 3, and row 3 will always contain the column names.

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

NOTE: Each correct selection is worth one point.

### Answer Area

To configure the query to start on row 3, select [answer choice]

▼

- Keep top rows
- Remove errors
- Remove top rows

To use the values in row 3 as the column names, select [answer choice]

▼

- Rename
- Replace values
- Use first row as headers

Answer:

### Answer Area

To configure the query to start on row 3, select [answer choice]

▼

- Keep top rows
- Remove errors
- Remove top rows

To use the values in row 3 as the column names, select [answer choice]

▼

- Rename
- Replace values
- Use first row as headers

### **Explanation:**

Remove top rows.

Use First row as headers.

**Remove Top Rows:** Use the "Remove Top Rows" function to eliminate the first two rows, bringing row 3 to the top.

**Use First Row as Headers:** Apply the "Use First Row as Headers" transformation to promote the current top row (originally row 3) to header status.

### **Conclusion:**

By following these steps, you ensure that Power Query correctly interprets the dataset's structure, with appropriate headers and data rows, facilitating accurate data analysis in Power BI.

**CertyIQ**

### **Question: 36**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a data source that contains a column. The column contains case sensitive data.

You have a Power BI semantic model in DirectQuery mode.

You connect to the model and discover that it contains undefined values and errors.

You need to resolve the issue.

Solution: You implicitly convert the values into the required type.

Does this meet the goal?

A.Yes

B.No

### **Answer: B**

### **Explanation:**

Correct answer is B:No.

The issue stems from the **case-sensitive data** in the column. Undefined values and errors are likely caused by mismatched case sensitivity between the **data source** and **Power BI semantic model** when working in **DirectQuery mode**.

### **Why the Suggested Solution Doesn't Meet the Goal:**

### **Implicit Type Conversion:**

This solution focuses on type conversion but does not address the core issue: **case sensitivity**.

Errors are not caused by a data type mismatch; they are due to **case sensitivity mismatches** in the source data, which is unrelated to type conversion.

Implicit type conversion will not resolve errors resulting from case sensitivity.

### **What Should Be Done:**

To resolve the issue, you need to ensure that the **case sensitivity** is handled properly. The correct approach would involve:

Configuring the **DirectQuery connection** to ensure case-insensitive comparisons.

Using **Power Query transformations** to standardize the case of the column data (e.g., converting all text to lowercase or uppercase).

Verifying the settings in the source system to ensure consistency in case sensitivity.

### **Summary:**

The proposed solution (**implicitly converting values into the required type**) does not address the core issue of **case sensitivity** in the data source.

Therefore, the correct answer is **B. No**.

## **Question: 37**

**CertyIQ**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a data source that contains a column. The column contains case sensitive data.

You have a Power BI semantic model in DirectQuery mode.

You connect to the model and discover that it contains undefined values and errors.

You need to resolve the issue.

Solution: You change the semantic model mode.

Does this meet the goal?

A.Yes

B.No

### **Answer: B**

### **Explanation:**

No is a right answer.

### Why Changing the Semantic Model Mode Doesn't Resolve the Issue:

Switching the semantic model from DirectQuery to Import or other modes won't inherently resolve case-sensitivity problems because:

The underlying data remains case-sensitive.

Undefined values and errors caused by case mismatches will still persist unless case sensitivity is addressed explicitly.

The problem is related to data handling rather than the model mode.

### What Should Be Done:

To resolve the issue, you should:

Normalize the case of the column values in Power Query (e.g., convert all text to lowercase or uppercase).

Ensure that the case sensitivity settings in the data source align with those in Power BI.

Configure DirectQuery settings to handle case sensitivity where applicable.

### Summary:

Changing the semantic model mode does not solve the issue of case sensitivity in the data. The correct approach would involve addressing case sensitivity explicitly in the data source or during the transformation process.

Therefore, the correct answer is B. No.

## Question: 38

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a data source that contains a column. The column contains case sensitive data.

You have a Power BI semantic model in DirectQuery mode.

You connect to the model and discover that it contains undefined values and errors.

You need to resolve the issue.

Solution: You normalize casing in the source query or Power Query Editor.

Does this meet the goal?

A.Yes

B.No

### Answer: A

#### Explanation:

Correct answer is A:Yes.

The issue arises because the data source contains **case-sensitive data**, and the Power BI semantic model in **DirectQuery mode** encounters errors due to mismatches in case sensitivity. Normalizing the casing in the **source query or Power Query Editor** resolves this issue by ensuring consistency in how data is interpreted.

#### Why Normalizing Casing Resolves the Issue:

##### Case Normalization:

Transforming all text values in the column to either **lowercase** or **uppercase** eliminates case sensitivity issues.

Power BI can then correctly match and interpret the data, preventing undefined values and errors.

##### DirectQuery Mode Compatibility:

By normalizing the casing in the source query or Power Query Editor, the data sent to the semantic model is consistent, and DirectQuery can function correctly.

#### How Normalizing Casing Works:

##### In Power Query Editor:

Use transformations like "**Transform > Format > Lowercase**" or "**Uppercase**" on the column containing case-sensitive data.

##### In the **source query** (if applicable):

Use SQL functions like LOWER() or UPPER() in the query to ensure consistent case handling at the data source level.

#### Why This Meets the Goal:

The solution directly addresses the root cause: case sensitivity.

It ensures consistent data comparison, preventing undefined values and errors in the semantic model.

#### Summary:

Normalizing casing in the **source query or Power Query Editor** effectively resolves case sensitivity issues in the data, ensuring that Power BI can interpret and process the data correctly. Therefore, the correct answer is **A. Yes.**

### Question: 39

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct

solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a data source that contains a column. The column contains case sensitive data.

You have a Power BI semantic model in DirectQuery mode.

You connect to the model and discover that it contains undefined values and errors.

You need to resolve the issue.

Solution: You add an index key and normalize casing in the data source.

Does this meet the goal?

A.Yes

B.No

**Answer: A**

**Explanation:**

Correct answer is A:Yes.

This solution effectively resolves the issue by addressing both the case sensitivity problem and ensuring the integrity of the data model with an index key. Therefore, the correct answer is A. Yes.

**Question: 40**

CertyIQ

You have a Microsoft Excel file in a Microsoft OneDrive folder.

The file must be imported to a Power BI semantic model.

You need to ensure that the semantic model can be refreshed in PowerBi.com.

Which two connectors can you use to connect to the file? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A.Web

B.Excel Workbook

C.Folder

D.Text/CSV

E.SharePoint folder

**Answer: AE**

**Explanation:**

A. Web.

E. SharePoint folder.

1. A. Web:

- The **Web connector** allows Power BI to access files via a URL, including files stored in **OneDrive**.
- Using the shared link from OneDrive, the Web connector can directly fetch and refresh the file.

2. E. SharePoint folder:

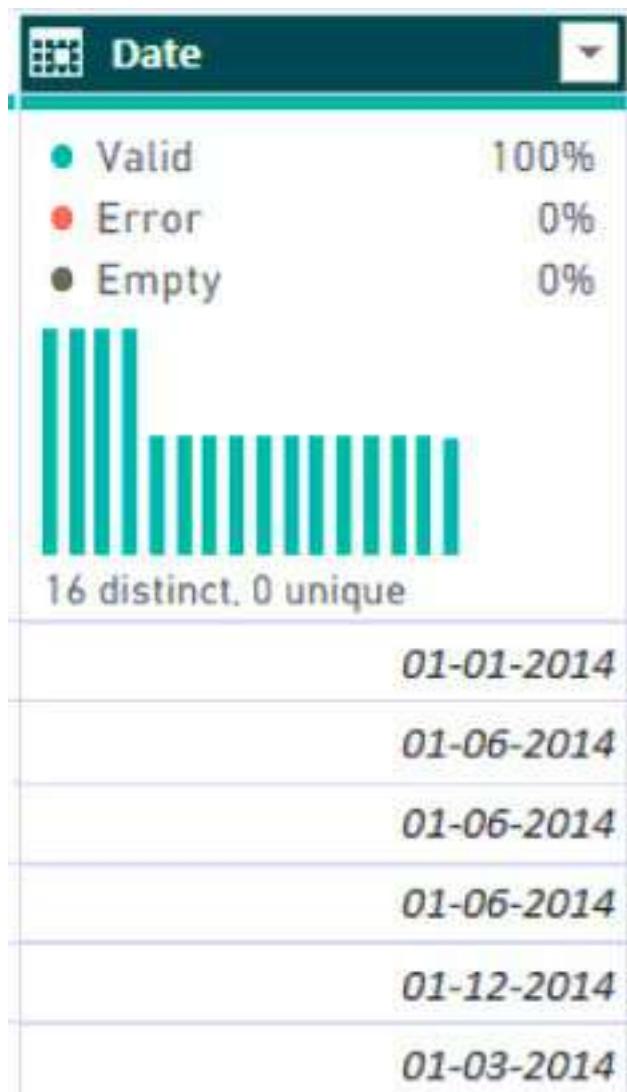
- OneDrive is built on **SharePoint Online**. Using the **SharePoint folder connector**, you can connect to files stored in OneDrive by providing the SharePoint path.
- This supports scheduled refresh in **PowerBI.com**.

To connect to an Excel file stored in **OneDrive** and ensure it can be refreshed in **PowerBI.com**, the **Web** and **SharePoint folder** connectors are the best options. Therefore, the correct answers are **A and E**.

**Question: 41**

CertyIQ

You use Power Query Editor to preview a column named Date as shown in the following exhibit.



You need to change the Date column to contain only the year. The solution must minimize administrative effort.

What should you do?

- A.Split the column by delimiter.
- B.Split the column by number of characters.
- C.Extract the text after the delimiter.
- D.Transform the column to contain only the year.

**Answer: D**

**Explanation:**

Transform the column to contain only the year.

**Minimal Administrative Effort:**

By adding a new column, you preserve the original **Date** column while introducing a new column that contains just the year. This way, no data is lost, and the transformation is straightforward.

**Using Power Query:**

In Power Query, you can **Add Column > Date > Year**, which is an easy and direct way to extract the year from the date. This is typically a minimal-effort approach because it doesn't require complex formulas or additional steps.

**Preserving Original Data:**

Adding a new column ensures that you retain the original date data, which could be useful for other transformations or analysis.

**Conclusion:**

Option **D** is correct because it provides a simple way to **add a column** that contains the year, offering a non-invasive solution while keeping the original data intact. This aligns with the requirement for **minimal administrative effort**.

**Question: 42**

CertyIQ

HOTSPOT

-

You are designing the data model for a Power BI semantic model.

You have the following tables in the star schema.

Name	Description
Date	Contains one row for each day from the last five years: Each row contains attributes for the year, quarter, month, week of the year, and day of the week. Date is the unique identifier of a row.
Patient	Contains one row per patient: Each row contains attributes for the patient key, patient source ID, first name, last name, date of birth, gender, address, city, state, and country. Patient key is the unique identifier of a row.
Test	Contains one row per test: Each row contains attributes for the test key, test source ID, type, and name. The test key is the unique identifier of a row.
Test Result	Contains one row per administered test: Each row contains attributes for the date the test was administered, test key, patient key, result value, and comments.

Which table is the fact table of the star schema, and which column in the Patient table is the surrogate key of the star schema? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

### Answer Area

Fact table:

Date  
 Patient  
 Test  
 Test Result

Surrogate key:

Date of birth  
 Last name  
 Patient key  
 Patient source ID

Answer:

## Answer Area

Fact table:

Date
Patient
Test
<b>Test Result</b>

Surrogate key:

Date of birth
Last name
<b>Patient key</b>
Patient source ID

### Explanation:

Test Result.

Patient key.

## **Fact Table = Test Result:**

### **1. Test Result as the Fact Table:**

- The **Test Result** table contains measurable or transactional data, such as test outcomes, dates, or scores.
- This table serves as the **center of analysis**, as it aggregates metrics tied to patients, tests, or other related entities.

### **2. Why It's the Fact Table:**

- Fact tables often contain foreign keys linking to dimension tables. In this case, **Test Result** might link to dimension tables such as **Patient**, **Test Type**, or **Date**.

---

## **Surrogate Key = PatientKey:**

### **1. PatientKey as the Surrogate Key:**

- While **PatientKey** typically belongs to a dimension table (e.g., **Patient**), its use as a surrogate key in the fact table suggests that **each test result is tied to a specific patient**.
- This would mean that the **PatientKey** acts as a foreign key in the **Test Result** table and links each test record to a patient in the **Patient dimension table**.

### **2. Why It's the Surrogate Key:**

- If **PatientKey** is system-generated and uniquely identifies patients in the dataset, it can serve as a surrogate key.
- It's possible the **Test Result** table uses this key to identify the patient associated with each test.

The correct answers, based on the configuration, are:

**Fact Table:** Test Result

Contains the core transactional or measurable data (e.g., test scores, results, dates).

**Surrogate Key:** PatientKey

Links each test record in the fact table to the corresponding patient in the **Patient dimension table**.

## **Question: 43**

**CertyIQ**

You use Power BI Desktop to import two tables named Customer and Contacts.

The Customer table contains the following columns:

- Customer\_Name
- Customer\_ID

•Website

The Contacts table contains the following columns:

- Contact ID
- Contact Email
- Contact Name
- Customer Name

A web-based contact form is used to fill the Contacts table. The data is not sanitized.

You need to create a merge for the Customer and Contacts tables.

What should you do?

- A.Disable fuzzy matching.
- B.Enable fuzzy matching.
- C.Set Join Kind to Left Outer.

**Answer: B**

**Explanation:**

enabling fuzzy matching (Option B), Power BI can perform a join that allows for slight variations and discrepancies in the "Customer Name" field between the two tables, effectively handling imperfect data. Fuzzy matching helps ensure that even non-exact matches are found and merged correctly, improving the accuracy of your merged dataset.

Disabling fuzzy matching would only allow exact matches, which may result in incomplete or inaccurate merges due to the unsanitized data. Setting the Join Kind to Left Outer doesn't address the issue of data inconsistencies and would still require exact matches unless fuzzy matching is enabled.

**Question: 44**

CertyIQ

HOTSPOT

You are using Microsoft Power BI Desktop to profile data in Power Query Editor.

Table data is displayed as shown in the following exhibit.

ABC 123 _id	ABC 123 date	data.Entries.menuAmount
1	2024-02-07	01/01/1900
1	2024-02-07	02/01/1900
1	2024-02-07	Error

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

Before you can transform the date column to show only the day, you must

[answer choice]:

change the data type.  
use the Parse command on the column.  
use the Replace Values command on the column.

To fix the error displayed for the data.Entries.menuAmount column, you must

[answer choice]:

change the data type.  
rename the column.  
use Conditional Formatting.

## Answer:

### Answer Area

Before you can transform the date column to show only the day, you must

[answer choice]:

change the data type.  
use the Parse command on the column.  
use the Replace Values command on the column.

To fix the error displayed for the data.Entries.menuAmount column, you must

[answer choice]:

change the data type.  
rename the column.  
use Conditional Formatting.

## Explanation:

1. Before you can transform the date column to show only the day, you must:

### Change the data type.

To extract only the day from a date column, you typically need to ensure that the column is in a date or datetime data type. If the column is not already in a date format, you will need to change its data type to a date or datetime format before performing any date-specific transformations.

2. To fix the error displayed for the data entries, menu Amount column, you must:

### Change the data type.

If the menu Amount column contains errors, it might be due to an incorrect data type. For example, if the column is supposed to contain numeric values but is set as text, you would need to change the data type to numeric (e.g., integer or decimal) to resolve the errors.

## Question: 45

CertyIQ

### HOTSPOT

You have a Power BI semantic model named Model1 that contains a table named Sales.

Sales contains 10 million records and the following data.

Column name	Data type	Description
PurchaseID	Text	Contains a unique ID for each order
CustomerID	Text	Contains a unique ID for each customer
PurchaseDateTime	Date/Time/Timezone	Contains the date and time that each order occurred
Region	Text	Contains the region where each order occurred
TotalAmount	Decimal number	Contains the total cost of each order

The related report displays the weekly sales per region.

You need to minimize the size of Model1.

How should you modify the CustomerID column and the PurchaseDateTime column? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

CustomerID:

Change the data type to Binary.  
Remove any duplicate values.  
Remove the column.

PurchaseDateTime:

Change the data type to Duration.  
Remove the column.  
Split the column into separate date and time columns.

Answer:

## Answer Area

CustomerID:

Change the data type to Binary.  
Remove any duplicate values.  
Remove the column.

PurchaseDateTime:

Change the data type to Duration.  
Remove the column.  
Split the column into separate date and time columns.

**Explanation:**

Customer ID : **Remove the column.**

The CustomerID field is typically a unique identifier for customers in a dataset.

Removing this column suggests that the CustomerID is not necessary for the analysis being performed.

This might be applicable in cases where the dataset is being anonymized, or if the column does not contribute to the required insights.

PurchaseDateTime :**Split the column into separate date and time columns.**

The PurchaseDateTime field likely contains a timestamp, which includes both date and time information.

Splitting it into separate date and time columns makes it easier to analyze trends based on dates (e.g., daily sales) or time (e.g., peak purchasing hours).

This transformation is commonly performed in data preprocessing to facilitate time-based analysis.

**CertyIQ****Question: 46**

You have a Microsoft Power BI Desktop report named Report1 that uses an Azure SQL database as a data source.

A user named User1 plans to create a report by using the same data source as Report1.

You need to simplify the connection to the data source for User1.

Which type of file should you create?

- A.PBIDS
- B.XLSX
- C.PBIT
- D.PBIX

**Answer: A****Explanation:**

A. PBIDS.

A .pbids (Power BI data source) file is specifically designed to simplify connections to a data source. If the user double-clicks the .pbids file, Power BI Desktop opens and automatically connects them to the specified data source – making it easy for someone else (User1) to reuse the same Azure SQL connection as in Report1.

**CertyIQ****Question: 47**

HOTSPOT

-

You have a Power BI semantic model.

You discover that the semantic model contains values that display as errors.

You need to use data profiling features in Power Query to preview the data and identify the issues.

What should you select to gain insight into the number of errors in the model, and what should you select to resolve the errors? To answer, select the appropriate options in the answer area.

NOTE: Each correct answer is worth one point.

## Answer Area

To gain insight, select:

Column distribution	▼
Column quality	▼
Formula Bar	▼
Monospaced	▼

To resolve the errors, select:

Keep Errors	▼
Remove Duplicates	▼
Remove Empty	▼
Replace Errors	▼

Answer:

## Answer Area

To gain insight, select:

Column distribution	▼
Column quality	▼
Formula Bar	▼
Monospaced	▼

To resolve the errors, select:

Keep Errors	▼
Remove Duplicates	▼
Remove Empty	▼
Replace Errors	▼

Explanation:

1. To gain insight, Select: **Column quality**.

Column quality provides useful information about valid, error, and empty values in a column.

This helps assess the data's reliability and cleanliness before analysis.

It is particularly useful when dealing with datasets that may have missing or incorrect values.

## 2. To resolve the errors, Select: **Remove Empty**.

Remove Empty helps eliminate blank or missing values from the dataset.

Empty values can cause issues in data analysis, affecting calculations and visualizations.

Removing empty values ensures cleaner and more accurate data.

**CertyIQ**

### Question: 48

You plan to create a Power BI semantic model named Model1 that will contain data from an Azure SQL database named DB1.

Model1 must show updated data within two minutes of the data being updated in DB1.

You need to select a connectivity mode for the connection to DB1.

What should you choose?

- A.DirectQuery
- B.live connection
- C.import

### Answer: A

#### Explanation:

A. Direct Query.

Direct Query Mode – Queries are sent to the data source in real-time without importing data.

DirectQuery mode ensures that Power BI always retrieves the latest data directly from DB1 every time a user interacts with a report.

**CertyIQ**

### Question: 49

You need to create a semantic model in Power BI Desktop. The solution must meet the following requirements:

- The model must contain a table named Orders that has one row per order. Each row will contain the total amount per order.
- The orders must be filtered to the selected CustomerID value.
- Users must select the CustomerID value from a list.
- The list of customers must come from an OData source.

Which three objects should you create in Power Query Editor? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.an Orders query that has a filter on CustomerID
- B.a Customers query that has a filter on CustomerID
- C.an Orders query that has a single column containing a list of customers
- D.a Customers query that has a single column containing a list of customer IDs
- E.a parameter for CustomerID that uses a query to populate the suggested values

F.a parameter for CustomerID that uses manually entered values to populate the suggested values

**Answer: ADE**

**Explanation:**

- A. An Orders query that has a filter on CustomerID: This query will fetch the orders and apply a filter based on the selected CustomerID to ensure the orders are filtered to the selected CustomerID value.
- D. A Customers query that has a single column containing a list of customer IDs: This query will fetch the list of customers from the OData source and provide a list of customer IDs that users can select from.
- E. A parameter for CustomerID that uses a query to populate the suggested values: This parameter will be used to dynamically filter the Orders query based on the selected CustomerID value. It will use the Customers query to populate the suggested values for the CustomerID parameter.

**CertyIQ**

**Question: 50**

You use Power BI Desktop to create a report named RPT1 that loads data from a Microsoft Excel file named File1. File1 is located in a network share.

File1 is moved to a different folder.

When you open RPT1 in Power BI Desktop, you discover that the report displays outdated data.

You need to ensure that the data in File1 refreshes properly.

What should you do?

- A.Change the data source.
- B.Clear the permissions of File1.
- C.Export a PBIDS file.
- D.Modify the permissions for File1.

**Answer: A**

**Explanation:**

- A. Change the data source.

Since File1 has been moved to a different folder, the path to the file has changed. Power BI Desktop relies on static file paths to locate data sources like Excel, CSV, or text files. When the original file is no longer in the expected location, Power BI cannot find it during refresh, and it may use cached/outdated data.

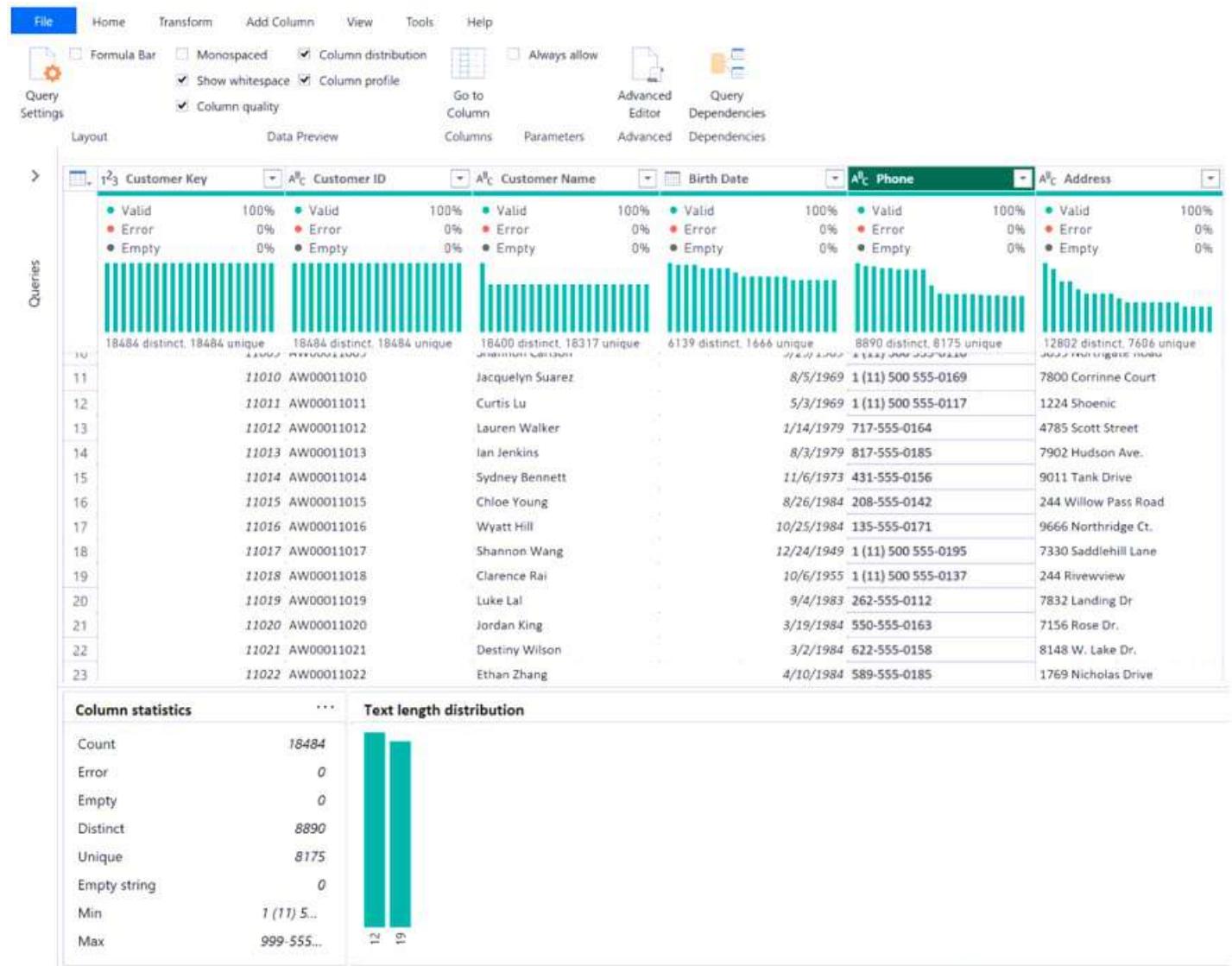
**CertyIQ**

**Question: 51**

HOTSPOT

-

You have a query that contains customer data in Power Query Editor 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

Some values in the [answer choice] column are repeated.

Customer ID  
Customer Key  
Customer Name

To standardize the values in the Phone column to 10 digits and exclude country calling codes, [answer choice].

extract the text after the ")" delimiter  
extract the last 12 characters  
split the column at the right-most occurrence of ")"

### Answer:

## Answer Area

Some values in the [answer choice] column are repeated.

Customer ID
Customer Key
Customer Name
extract the text after the ")" delimiter
extract the last 12 characters
split the column at the right-most occurrence of ")"

To standardize the values in the Phone column to 10 digits and exclude country calling codes, [answer choice].

### Explanation:

**Customer Name.**

**Extract the last 12 characters.**

Customer Name because it has a greater number of distinct vs unique values in the column. This implies that there are repeating values in it. -Second statement requires 10 digits in the phone number. If choose "extract the text after the ")" delimiter", it will leave a leading whitespace for certain rows since there is a space after the ")" in certain rows and this counts as a digit which would make it 11 digits which does NOT meet the requirement.BUT, if we use the other option "Extract the last 12 characters", then it will NOT include the leading whitespace and correctly satisfy the 10 digit requirement as well as not including whitespace which can throw off calculations, sort orders, etc.

## Question: 52

CertyIQ

You have a Power BI report named Report that contains the following tables.

Name	Description
Product	10 rows with a primary key named ProductId
Sales person	Five rows with a primary key named SalesPersonId
Calendar	Standard calendar table without time columns that is generated from a calculated table
Customer	25 rows with a primary key named CustomerId
Invoice	12 million rows from the last three months with many-to-one relationships to Product, Sales Person, Calendar, and Customer

For the last three days, refresh in Power BI has failed, and you receive the following error message: "You have reached the maximum allowable memory allocation for your tier. Consider upgrading to a tier with more available memory."

You need to resolve the error and ensure that query response times are minimized for end users.

What should you do?

- A.Merge the Sales person and invoice tables based on the SalesPersonId column.
- B.Change the invoice table to a DirectQuery table and read the data live from the source, retaining only the dimension tables as import tables.
- C.Reduce the size of the invoice table by summarizing sales by Product, Sales person, Calendar, and Customer.
- D.Change the invoice table to a composite table that contains historical data as a DirectQuery table and hot data as an import table, and then partition the table.

**Answer: D**

**Explanation:**

D. Change the invoice table to a composite table that contains historical data as a DirectQuery table and hot data as an import table, and then partition the table.

Combines Import (fast performance) with DirectQuery (real-time, but slower).

Hot data (recent, frequently queried) is kept in Import mode for performance.

Historical data (older, less frequently queried) is kept in DirectQuery to reduce memory usage.

**Question: 53**

**CertyIQ**

You have a table named DIMCountries that contains a column named Country as shown in the following table.

Country
Afghanistan
afghanistan
Albania
Algeria
American Samoa
Andorra
andorra
Antarctica
Argentina

You plan to use DIMCountries as a dimension in a report.

You need to ensure that the Country column in DIMCountries lists each country only once.

Which two actions should you perform on the Country column? Each correct answer presents part of the solution.

NOTE: Each correct answer is worth one point.

- A.Change Data category to Country.
- B.Remove duplicate values.
- C.Apply a clean transform.
- D.Replace the empty fields.
- E.Apply a Capitalize Each Word transform.

**Answer: BD**

**Explanation:**

B. Remove duplicate valuesThis will ensure each country appears only once by removing duplicate rows in the Country column.

D. Replace the empty fieldsThis ensures that there are no blank or null values in the Country column, which

might otherwise appear as missing or extra entries.

CertyIQ

**Question: 54**

HOTSPOT

- You plan to use Power Query Editor to get data from an API.

The API returns a JSON response.

You have a username and password for the API.

Which data source and authentication method should you use to connect to the API? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Data source:

- Dataflows
- JSON
- OData
- Web

Authentication:

- Anonymous
- Basic
- Organizational account
- Web API

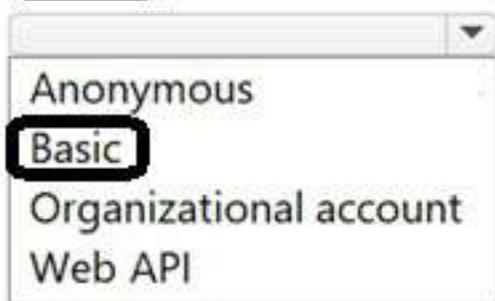
Answer:

## Answer Area

Data source:



Authentication:



### Explanation:

Data source: Web

Power Query uses the Web connector to fetch data from APIs (which typically return JSON or XML).

Authentication: Basic.

Since you have a username and password, the most common authentication for APIs that require these is Basic Authentication (username and password sent encoded in the HTTP header). If the API uses some other auth method (like OAuth), that would differ, but given username/password, Basic Auth is the standard.

CertyIQ

## Question: 55

You are creating a report in Power BI Desktop.

You load a data extract that includes a free text field named col1.

You need to analyze the frequency distribution of the string lengths in col1. The solution must not affect the size of the model.

What should you do?

- A. In the report, add a DAX calculated column that calculates the length of col1
- B. In the report, add a DAX function that calculates the average length of col1
- C. From Power Query Editor, add a column that calculates the length of col1
- D. From Power Query Editor, change the distribution for the Column profile to group by length for col1

### Answer: D

### Explanation:

A will affect the size of the model as would C.

B doesn't give you enough information about the distribution (just the average)

D is the right answer.

1. Power Query Editor -> View -> Enable Column Profile

2. Select three dots (top left corner) in the profile pane appear at the bottom of the Query Editor window.

3. Group By -> Text length

Using Column Profiling in Power Query Editor allows you to analyze the frequency distribution of string lengths in col1 without adding new columns or increasing the size of the model. This meets the requirements efficiently, as the analysis is performed in-memory and not persisted in the model.

### Question: 56

CertyIQ

You have a collection of reports for the HR department of your company. The datasets use row-level security (RLS). The company has multiple sales regions.

Each sales region has an HR manager.

You need to ensure that the HR managers can interact with the data from their region only. The HR managers must be prevented from changing the layout of the reports.

How should you provision access to the reports for the HR managers?

- A. Publish the reports in an app and grant the HR managers access permission.
- B. Create a new workspace, copy the datasets and reports, and add the HR managers as members of the workspace.
- C. Publish the reports to a different workspace other than the one hosting the datasets.
- D. Add the HR managers as members of the existing workspace that hosts the reports and the datasets.

### Answer: A

#### Explanation:

correct ans looks as A since an app would prevent to change the layout

In the Power BI service, members of a workspace have access to datasets in the workspace. RLS doesn't restrict this data access. and RLS is used to restrict access to data not to layout of the report. Members are allowed to change the report layout.

Reference:

<https://kunaltripathy.com/2021/10/06/bring-your-power-bi-to-power-apps-portal-part-ii/>

### Question: 57

CertyIQ

You need to provide a user with the ability to add members to a workspace. The solution must use the principle of least privilege.

Which role should you assign to the user?

- A. Viewer
- B. Admin
- C. Contributor
- D. Member

### Answer: D

#### Explanation:

Member role allows adding members or other with lower permissions to the workspace.

# Workspace roles

Capability	Admin	Member	Contributor	Viewer
Update and delete the workspace.	✓			
Add/remove people, including other admins.	✓			
Allow Contributors to update the app for the workspace	✓			
Add members or others with lower permissions.	✓	✓		

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

## Question: 58

CertyIQ

You have a Power BI query named Sales that imports the columns shown in the following table.

Name	Description	Sample value
ID	A unique value that represents a sale	10253
Sale_Date	Sales date A column to extract the date of the sale	2021-11-23T09:53:00
Customer_ID	Represents a unique customer ID number	13158
Delivery_Time	Elapsed delivery time in hours Can contain null values	51.52
Status	Sales status Contains only the following two values: Finished and Canceled	Finished
Canceled_Date	Cancellation date and time Can contain null values	2021-11-24T14:11:23

Users only use the date part of the Sales\_Date field. Only rows with a Status of Finished are used in analysis. You need to reduce the load times of the query without affecting the analysis.

Which two actions achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Remove the rows in which Sales[Status] has a value of Canceled.
- B. Remove Sales[Sale\_Date].
- C. Change the data type of Sale[Delivery\_Time] to Integer.
- D. Split Sales[Sale\_Date] into separate date and time columns.
- E. Remove Sales[Canceled Date].

## Answer: AD

### Explanation:

A: Removing uninteresting rows will increase query performance.

D: Splitting the Sales\_Date column will make comparisons on the Sales date faster.

The Power BI Desktop data model only supports date/time, but they can be formatted as dates or times independently. Date/Time – Represents both a date and time value. Underneath the covers, the Date/Time

value is stored as a Decimal Number Type. Since there's a T in the dates column before split, it's saved as a source text value. Splitting converts it to a numeric value. This reduces the size.

### Question: 59

CertyIQ

You build a report to analyze customer transactions from a database that contains the tables shown in the following table.

Table name	Column name
Customer	CustomerID (primary key)
	Name
	State
	Email
Transaction	TransactionID (primary key)
	CustomerID (foreign key)
	Date
	Amount

You import the tables.

Which relationship should you use to link the tables?

- A. one-to-many from Transaction to Customer
- B. one-to-one between Customer and Transaction
- C. many-to-many between Customer and Transaction
- D. one-to-many from Customer to Transaction

### Answer: D

#### Explanation:

One on the primary Key side (customer table), many on the foreign key side (Transaction table) of the relation.

### Question: 60

CertyIQ

You have a custom connector that returns ID, From, To, Subject, Body, and Has Attachments for every email sent during the past year. More than 10 million records are returned.

You build a report analyzing the internal networks of employees based on whom they send emails to.

You need to prevent report recipients from reading the analyzed emails. The solution must minimize the model size. What should you do?

- A. From Model view, set the Subject and Body columns to Hidden.
- B. Remove the Subject and Body columns during the import.
- C. Implement row-level security (RLS) so that the report recipients can only see results based on the emails they sent.

**Answer: B**

**Explanation:**

"prevent report recipients from reading the analyzed emails"

The Subject and the Body are not needed in the report. Dropping them resolves the security problem and minimizes the model.

**Question: 61**

CertyIQ

HOTSPOT -

You create a Power BI dataset that contains the table shown in the following exhibit.

Business Unit	⋮
Cost Center	
Headcount	
ID	
Name	
<a href="#">Collapse ^</a>	

You need to make the table available as an organizational data type in Microsoft Excel.

How should you configure the properties of the table? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Row label:

	▼
Cost Center	
Headcount	
ID	
Name	

Key column:

	▼
Cost Center	
Headcount	
ID	
Name	

Is featured table:

	▼
No	
Yes	

Answer:

# Answer Area

Row label:

	▼
Cost Center	
Headcount	
ID	
Name	

Key column:

	▼
Cost Center	
Headcount	
ID	
Name	

Is featured table:

	▼
No	
Yes	

Explanation:

**Box 1: Row label: Name**

See: <https://www.myonlinetraininghub.com/power-bi-organizational-data-types-in-excel#:~:text=Power%20BI%20Organizational%20Data%20Types%20in%20Excel%20allow%20you%20to,company%2C%20to%20name%20a%20few.>

**Box 2: ID -**

The Key column field value provides the unique ID for the row. This value enables Excel to link a cell to a specific row in the table.

**Box 3: Yes -**

In the Data Types Gallery in Excel, your users can find data from featured tables in your Power BI datasets.

Reference:

## Question: 62

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



A manager can represent only a single country.

You need to use row-level security (RLS) to meet the following requirements:

- ⇒ The managers must only see the data of their respective country.
- ⇒ The number of RLS roles must be minimized.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create a single role that filters Country[Manager\_Email] by using the USERNAME DAX function.
- B. Create a single role that filters Country[Manager\_Email] by using the USEROBJECTID DAX function.
- C. For the relationship between Purchase Detail and Purchase, select Apply security filter in both directions.
- D. Create one role for each country.
- E. For the relationship between Purchase and Purchase Detail, change the Cross filter direction to Single.

## Answer: AC

### Explanation:

A: You can take advantage of the DAX functions `username()` or `userprincipalname()` within your dataset. You can use them within expressions in Power BI

Desktop. When you publish your model, it will be used within the Power BI service.

Note: To define security roles, follow these steps.

Import data into your Power BI Desktop report, or configure a DirectQuery connection.

1. From the Modeling tab, select Manage Roles.
2. From the Manage roles window, select Create.
3. Under Roles, provide a name for the role.
4. Under Tables, select the table to which you want to apply a DAX rule.
5. In the Table filter DAX expression box, enter the DAX expressions. This expression returns a value of true or false. For example: [Entity ID] = Value.

6. After you've created the DAX expression, select the checkmark above the expression box to validate the expression.

Note: You can use `username()` within this expression.

7. Select Save.

C: By default, row-level security filtering uses single-directional filters, whether the relationships are set to single direction or bi-directional. You can manually enable bi-directional cross-filtering with row-level security by selecting the relationship and checking the Apply security filter in both directions checkbox. Select this option when you've also implemented dynamic row-level security at the server level, where row-level security is based on username or login ID.

Reference:

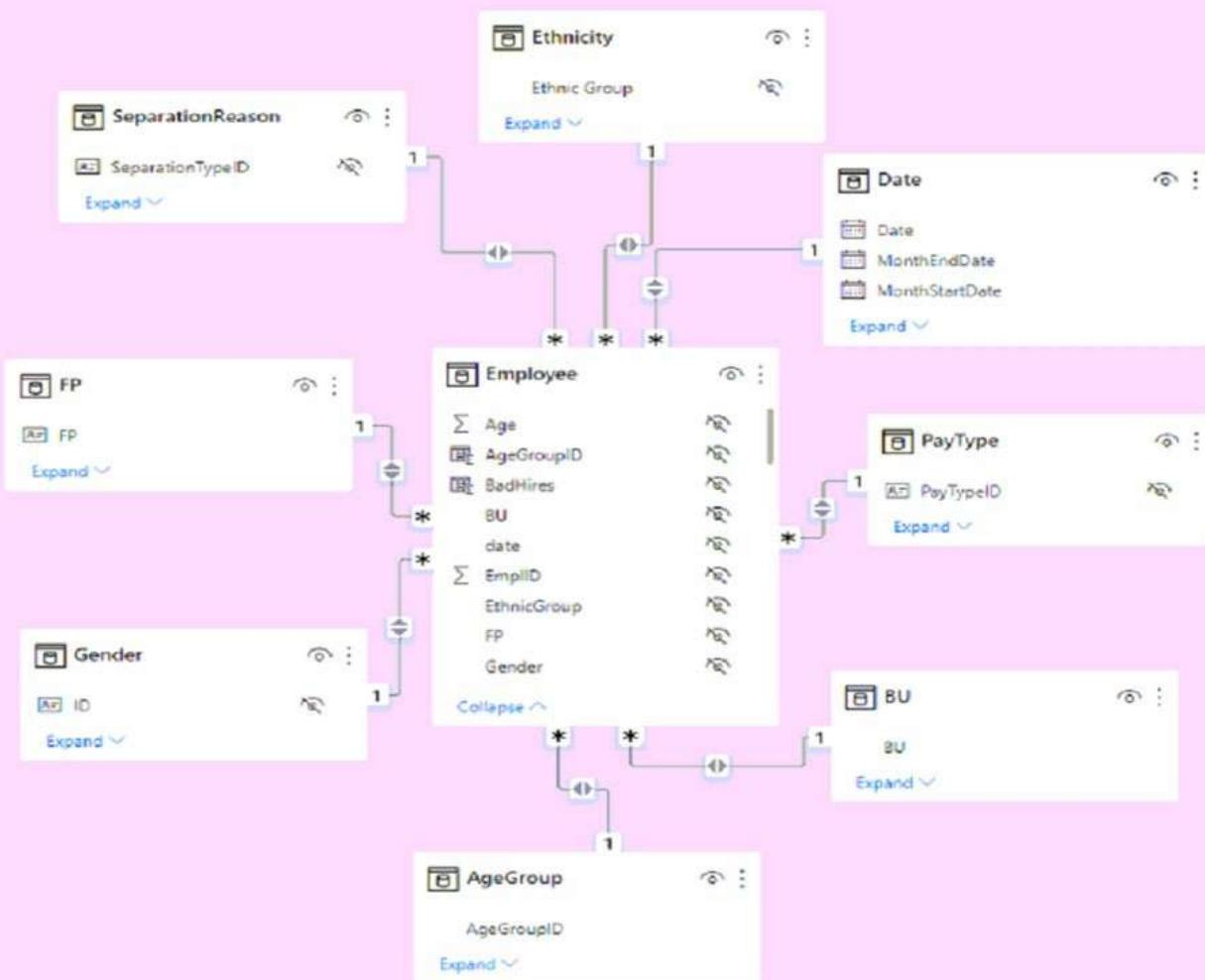
<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

### Question: 63

CertyIQ

HOTSPOT -

You have a Power BI imported dataset that contains the data model 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

Changing the [answer choke] setting of the relationships will improve report query performance.

▼
Cardinality
Cross filter direction
Assume Referential Integrity

The data model is organized into a [answer choice].

▼
star schema
snowflake schema
denormalized table

## Answer:

### Answer Area

Changing the [answer choice] setting of the relationships will improve report query performance.

▼
Cardinality
Cross filter direction
Assume Referential Integrity

The data model is organized into a [answer choice].

▼
star schema
snowflake schema
denormalized table

## Explanation:

### Box 1: cross filter direction -

As the answer correctly states "Assume Referential Integrity" only works for direct query connections.

### Box 2: Star schema -

Star schema is a mature modeling approach widely adopted by relational data warehouses. It requires modelers to classify their model tables as either dimension or fact.

Generally, dimension tables contain a relatively small number of rows. Fact tables, on the other hand, can contain a very large number of rows and continue to grow over time.

### Example:



Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/desktop-assume-referential-integrity>

<https://docs.microsoft.com/en-us/power-bi/guidance/star-schema>

## Question: 64

CertyIQ

HOTSPOT -

You have a Power BI model that contains a table named Sales and a related date table. Sales contains a measure named Total Sales.

You need to create a measure that calculates the total sales from the equivalent month of the previous year.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Sales Previous Year =

	▼
CALCULATE	
EVALUATE	
SUM	
SUMX	

[Total Sales],

	▼	(
DATESMTD		
PARALLELPERIOD		
SAMEPERIODLASTYEAR		
TOTALMTD		

	▼
[Date]	
'Date' [Date]	
'Date' [Month]	

)

)

Answer:

Sales Previous Year =

```

CALCULATE
EVALUATE
SUM
SUMX
[Total Sales],
(
    DATESMTD
    PARALLELPERIOD
    SAMEPERIODLASTYEAR
    TOTALMTD
)
    [
        [Date]
        'Date'[Date]
        'Date'[Month]
    ]

```

### Explanation:

**CALCULATE**

**SAMEPERIODLASTYEAR**

**'DATE'[DATE]**

**Box 1: CALCULATE -**

**Box 2: SAMEPERIODLASTYEAR**

accepts a data column, Month will usually be either text (Jan) or Integer (1). so: CALCULATE([Total Sales], SAMEPERIODLASTYEAR('Date'[Date]))

**Box 3: 'DATE' [DATE]**

Reference:

<https://docs.microsoft.com/en-us/dax/parallelperiod-function-dax> <https://docs.microsoft.com/en-us/dax/sameperiodlastyear-function-dax>

### Question: 65

CertyIQ

DRAG DROP -

You plan to create a report that will display sales data from the last year for multiple regions.

You need to restrict access to individual rows of the data on a per region-basis by using roles.

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.

Select and Place:

**Actions**

- Publish the report.
- Assign users to the role.
- Add a filter to the report.
- Create a role definition.
- Import the data to Power BI Desktop.

**Answer Area****Answer:****Actions**

- Publish the report.
- Assign users to the role.
- Add a filter to the report.
- Create a role definition.
- Import the data to Power BI Desktop.

**Answer Area**

- Import the data to Power BI Desktop.
- Create a role definition.
- Publish the report.
- Assign users to the role.

**Explanation:**

With respect, you can not assign users to a role until AFTER the report has been published to the Power BI Service. Those posting that you create the role and then assign users to the role BEFORE publishing are incorrect. Roles are created in Power BI Desktop. Desktop does not have any way to assign users to the roles. They are empty when created. Role assignment happens in the service.

Publish the report to the Power BI service. Go to your Workspace, using the Dataset, select the More Options menu(...) and click Security. This is where the Roles are populated.

**1) Import your data into Power BI Desktop**

**2) Create the role definition (on the Modeling tab)**

**3) Publish the report to the Power BI service**

**4) Assign users to the role**

**Question: 66****CertyIQ**

DRAG DROP -

You create a data model in Power BI.

Report developers and users provide feedback that the data model is too complex.

The model contains the following tables.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	region_id	Integer
Manager	manager_id	Integer
	name	Varchar

The model has the following relationships:

- There is a one-to-one relationship between Sales\_Region and Region\_Manager.
- There are more records in Manager than in Region\_Manager, but every record in Region\_Manager has a corresponding record in Manager.
- There are more records in Sales\_Manager than in Sales\_Region, but every record in Sales\_Region has a corresponding record in Sales\_Manager.

You need to denormalize the model into a single table. Only managers who are associated to a sales region must be included in the reports.

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.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Actions	Answer Area
Merge [Region_Manager] and [Manager] by using an inner join.	
Merge [Sales_Manager] and [Sales_Region] by using a left join.	
Merge [Sales_Region] and [Sales_Manager] by using an inner join.	
Merge [Sales_Region] and [Sales_Manager] by using an inner join as a new query named [Sales_Region_and_Manager].	
Merge [Sales_Region] and [Region_Manager] by using a right join as a new query named [Sales_Region_and_Region_Manager].	
Merge [Sales_Region] and [Region_Manager] by using an inner join.	

### Answer:

Actions	Answer Area
Merge [Region_Manager] and [Manager] by using an inner join.	Merge [Region_Manager] and [Manager] by using an inner join.
Merge [Sales_Manager] and [Sales_Region] by using a left join.	Merge [Sales_Region] and [Sales_Manager] by using an inner join.
Merge [Sales_Region] and [Sales_Manager] by using an inner join.	
Merge [Sales_Region] and [Sales_Manager] by using an inner join as a new query named [Sales_Region_and_Manager].	Merge [Sales_Region] and [Region_Manager] by using an innerjoin.
Merge [Sales_Region] and [Region_Manager] by using a right join as a new query named [Sales_Region_and_Region_Manager].	
Merge [Sales_Region] and [Region_Manager] by using an inner join.	

### Explanation:

- Merge [Region\_Manager] and [Manager] by using an inner join.
- Merge [Sales\_Region] and [Sales\_Manager] by using an inner join.
- Merge [Sales\_Region] and [Region\_Manager] by using an innerjoin.

6.Merge [Sales\_Region] and [Region\_Manager] by using an inner join.

CertyIQ

### Question: 67

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Change any DAX measures to use iterator functions.
- B. Enable visual interactions.
- C. Replace the default visuals with AppSource visuals.
- D. Split the visuals onto multiple pages.

### Answer: D

#### Explanation:

One page with many visuals may also make your report loading slow. Please appropriately reduce the number of visualizations on one page.

Reference:

<https://community.powerbi.com/t5/Desktop/Visuals-are-loading-extremely-slow/td-p/1565668>

CertyIQ

### Question: 68

HOTSPOT -

You are creating a Microsoft Power BI imported data model to perform basket analysis. The goal of the analysis is to identify which products are usually bought together in the same transaction across and within sales territories.

You import a fact table named Sales as shown in the exhibit. (Click the Exhibit tab.)

SalesRowID	ProductKey	OrderDateKey	OrderDate	CustomerKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	OrderQuantity	LineTotal	TaxAmt	Freight	LastModified	AuditID	
1	310	20101229	2010-12-29 00:00:00.000	21768	6	S043697	1	1	3578.27	286.2616	89.4568	2011-01-10 00:00:00.000	127	
2	2	346	20101229	2010-12-29 00:00:00.000	28389	7	S043698	1	1	3399.99	271.9992	84.9998	2011-01-10 00:00:00.000	127
3	3	346	20101229	2010-12-29 00:00:00.000	25863	1	S043699	1	1	3399.99	271.9992	84.9998	2011-01-10 00:00:00.000	127
4	4	336	20101229	2010-12-29 00:00:00.000	14501	4	S043700	1	1	699.0982	55.9279	17.4775	2011-01-10 00:00:00.000	127
5	5	346	20101229	2010-12-29 00:00:00.000	11003	9	S043701	1	1	3399.99	271.9992	84.9998	2011-01-10 00:00:00.000	127
6	6	311	20101230	2010-12-30 00:00:00.000	27645	4	S043702	1	1	3578.27	286.2616	89.4568	2011-01-11 00:00:00.000	127
7	7	310	20101230	2010-12-30 00:00:00.000	16624	9	S043703	1	1	3578.27	286.2616	89.4568	2011-01-11 00:00:00.000	127

The related dimension tables are imported into the model.

Sales contains the data shown in the following table.

Column name	Data type	Description
SalesRowID	Integer	ID of the row from the source system, which represents a unique combination of SalesOrderNumber and SalesOrderLineNumber
ProductKey	Integer	Surrogate key that relates to the product dimension
OrderDateKey	Integer	Surrogate key that relates to the date dimension and is in the YYYYMMDD format
OrderDate	Datetime	Date and time an order was processed
CustomerKey	Integer	Surrogate key that relates to the customer dimension
SalesTerritoryKey	Integer	Surrogate key that relates to the sales territory dimension
SalesOrderNumber	Text	Unique identifier of an order
SalesOrderLineNumber	Integer	Unique identifier of a line within an order
OrderQuantity	Integer	Quantity of the product ordered
LineTotal	Decimal	Total sales amount of a line before tax
TaxAmt	Decimal	Amount of tax charged for the items on a specified line within an order
Freight	Decimal	Amount of freight charged for the items on a specified line within an order
LastModified	Datetime	The date and time that a row was last modified in the source system
AuditID	Integer	The ID of the data load process that last updated a row

You are evaluating how to optimize the model.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

Statements	Yes	No
The SalesRowID and AuditID columns can be removed from the model without impeding the analysis goals.	<input checked="" type="radio"/>	<input type="radio"/>
Both the OrderDateKey and OrderDate columns are necessary to perform the basket analysis.	<input type="radio"/>	<input checked="" type="radio"/>
The TaxAmt column must retain the current number of decimal places to perform the basket analysis.	<input type="radio"/>	<input checked="" type="radio"/>

#### Answer:

#### Answer Area

Statements	Yes	No
The SalesRowID and AuditID columns can be removed from the model without impeding the analysis goals.	<input checked="" type="radio"/>	<input type="radio"/>
Both the OrderDateKey and OrderDate columns are necessary to perform the basket analysis.	<input type="radio"/>	<input checked="" type="radio"/>
The TaxAmt column must retain the current number of decimal places to perform the basket analysis.	<input type="radio"/>	<input checked="" type="radio"/>

**Explanation:**

Box 1: Yes -

Those two columns not need in the analysis.

Box 2: No -

Can remove the surrogate key OrderDateKey from the analysis.

Box 3: No -

Tax charged not relevant for the analysis.

**CertyIQ****Question: 69**

You have a Microsoft Power BI data model that contains three tables named Orders, Date, and City. There is a one-to-many relationship between Date and Orders and between City and Orders.

The model contains two row-level security (RLS) roles named Role1 and Role2. Role1 contains the following filter. City[State Province] = "Kentucky"

Role2 contains the following filter.

Date[Calendar Year] = 2020 -

If a user is a member of both Role1 and Role2, what data will they see in a report that uses the model?

- A. The user will see data for which the State Province value is Kentucky or where the Calendar Year is 2020.
- B. The user will receive an error and will not be able to see the data in the report.
- C. The user will only see data for which the State Province value is Kentucky.
- D. The user will only see data for which the State Province value is Kentucky and the Calendar Year is 2020.

**Answer: A****Explanation:**

A, from the Microsoft documentation (<https://docs.microsoft.com/en-us/power-bi/guidance/rls-guidance>):

"When a report user is assigned to multiple roles, RLS filters become additive. It means report users can see table rows that represent the union of those filters."

This means that you would see all data where either Role1 OR Role2 applies, so the answer is A not D.

Example from MS Learn linked below:

<https://learn.microsoft.com/en-us/power-bi/guidance/rls-guidance>

"Consider a model with two roles: The first role, named Workers, restricts access to all Payroll table rows by using the following rule expression:

DAX:

FALSE()

A rule will return no table rows when its expression evaluates to false.

Yet, a second role, named Managers, allows access to all Payroll table rows by using the following rule expression:

DAX:

TRUE()

Take care: Should a report user map to both roles, they'll see all Payroll table rows."

It seems to be indeed A in that scenario. User will see the data from the first as well as the second filter, it is FILTER A OR FILTER B (not FILTER A AND FILTER B)

## Question: 70

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: From Power Query Editor, you import the table and then add a filter step to the query.

Does this meet the goal?

A. Yes

B. No

### Answer: B

#### Explanation:

This would load the entire table in the first step.

Instead: You add a WHERE clause to the SQL statement.

Reference:

<https://docs.microsoft.com/en-us/power-query/native-database-query>

## Question: 71

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: You write a DAX expression that uses the FILTER function.

Does this meet the goal?

A. Yes

B. No

### Answer: B

#### Explanation:

Instead: You add a WHERE clause to the SQL statement.

Note: DAX is not a language designed to fetch the data like SQL rather than used for data analysis purposes.

It is always a better and recommended approach to transform the data as close to the data source itself. For example, your data source is a relational database; then, it's better to go with T-SQL.

SQL is a structured query language, whereas DAX is a formula language used for data analysis purposes. When our data is stored in some structured database systems like SQL server management studio, MySQL, or others, we have to use SQL to fetch the stored data.

Reference:

<https://www.learndax.com/dax-vs-sql-when-to-use-dax-over-sql/>

CertyIQ

## Question: 72

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: You add a WHERE clause to the SQL statement.

Does this meet the goal?

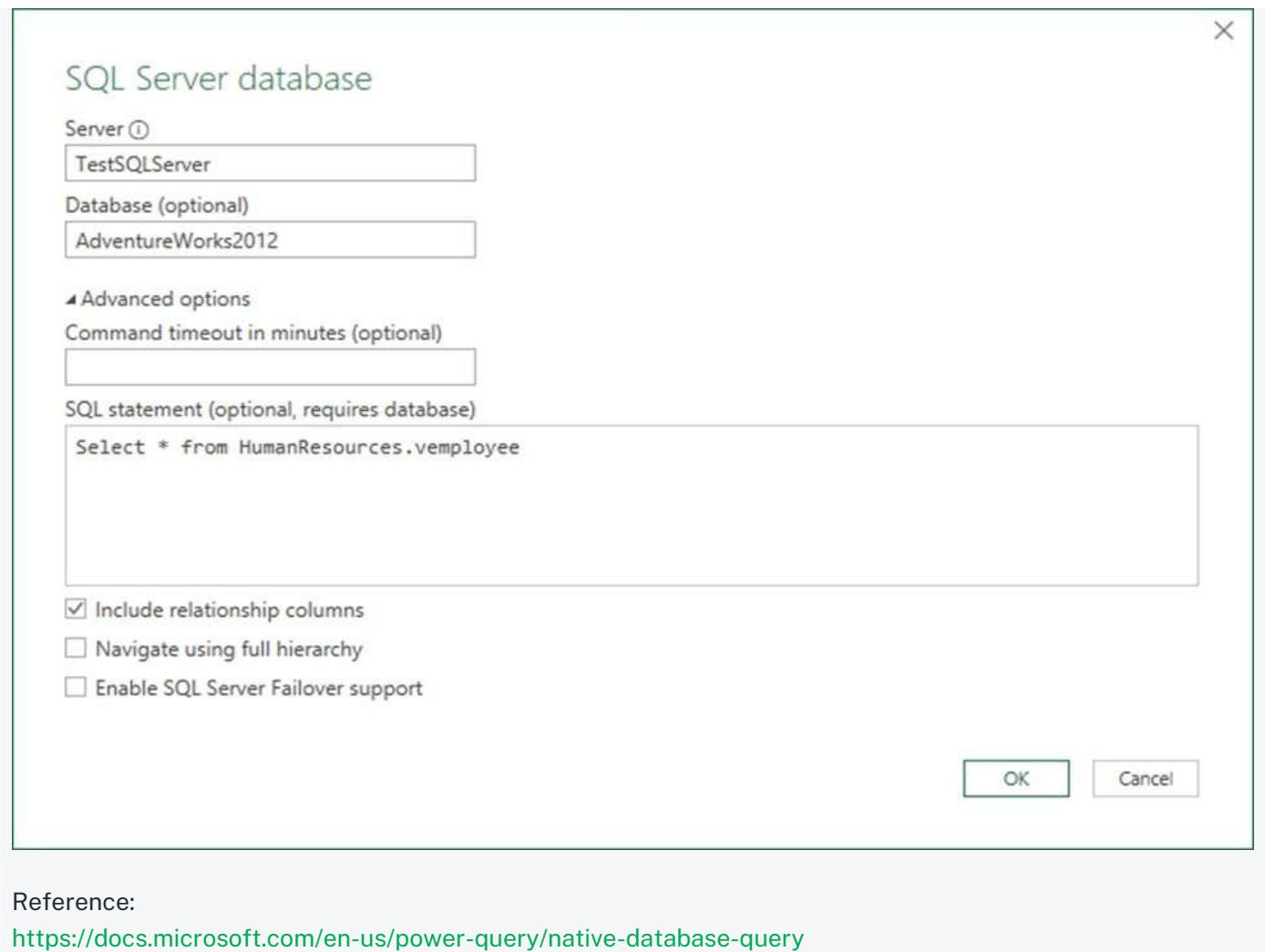
- A. Yes
- B. No

## Answer: A

### Explanation:

Power Query enables you to specify your native database query in a text box under Advanced options when connecting to a database. In the example below, you'll import data from a SQL Server database using a native database query entered in the SQL statement text box.

1. Connect to a SQL Server database using Power Query. Select the SQL Server database option in the connector selection.
2. In the SQL Server database popup window:
3. Specify the Server and Database where you want to import data from using native database query.
4. Under Advanced options, select the SQL statement field and paste or enter your native database query, then select OK.



Reference:

<https://docs.microsoft.com/en-us/power-query/native-database-query>

### Question: 73

CertyIQ

DRAG DROP -

You are preparing a financial report in Power BI.

You connect to the data stored in a Microsoft Excel spreadsheet by using Power Query Editor as shown in the following exhibit.

	Column1	1.2 Column2	1.2 Column3	1.2 Column4	1.2 Column5	1.2 Column6
1	Measure	2016	2017	2018	2019	2020
2	Revenue	0.5	0.6	0.55	0.61	0.42
3	Overheads	0.11	0.330410907	0.167055779	0.360178153	0.183179995
4	Cost of Goods	0.204388253	0.165848321	0.25	0.17	0.109073918

You need to prepare the data to support the following:

- ⇒ Visualizations that include all measures in the data over time
- ⇒ Year-over-year calculations for all the measures

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.

Select and Place:

**Actions**

- Use headers as the first row.
- Rename the Measure column as Year.
- Rename the Attribute column as Year.
- Use the first row as headers.
- Transpose the table.
- Unpivot all the columns other than Measure.
- Change the data type of the Year column to Date.

**Answer Area****Answer:****Actions**

- Use headers as the first row.
- Rename the Measure column as Year.
- Rename the Attribute column as Year.
- Use the first row as headers.
- Transpose the table.
- Unpivot all the columns other than Measure.
- Change the data type of the Year column to Date.

**Answer Area**

- Use the first row as headers.
- Unpivot all the columns other than Measure.
- Rename the Attribute column as Year.
- Change the data type of the Year column to Date.

**Explanation:**

1. Use first row as header
2. Unpivot all columns other than "Measure"
3. Rename "Attribute" to "Year"
4. Change data type of "Year" column to Date

**Reference:**

<https://docs.microsoft.com/en-us/power-query/unpivot-column>

**Question: 74****CertyIQ****HOTSPOT -**

You are creating an analytics report that will consume data from the tables shown in the following table.

<b>Table name</b>	<b>Column name</b>	<b>Data type</b>
Sales	sales_id	Integer
	sales_date	Datetime
	Customer_id	Integer
	sales_amount	Floating
	employee_id	Integer
	sales_ship_date	Datetime
	store_id	Varchar(100)
Employee	employee_id	Integer
	first_name	Varchar(100)
	last_name	Varchar(100)
	employee_photo	Binary

There is a relationship between the tables.

There are no reporting requirements on employee\_id and employee\_photo.

You need to optimize the data model.

What should you configure for employee\_id and employee\_photo? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Employee\_id:

Change Type
Delete
Hide
Sort

Employee\_photo:

Change Type
Delete
Hide
Sort

**Answer:**

## Answer Area

Employee\_id:

Change Type
Delete
Hide
Sort

Employee\_photo:

Change Type
Delete
Hide
Sort

### Explanation:

Box 1: Hide -

Need in the relation, so cannot delete it.

Hide: We should hide the "employee\_id" column if there are no reporting requirements on it. This means it won't be visible in the report, but it will still be available for any potential relationships or calculations with the model.

Box 2: Delete -

Delete: Since there are no reporting requirements on the "employee\_photo" column, we should delete it from the data model to reduce unnecessary storage and improve performance. This means that the "employee\_photo" data is not needed for any calculations or relationships within the model.

### Reference:

<https://community.powerbi.com/t5/Desktop/How-to-Hide-a-Column-in-power-Bi/m-p/414470>

**HOTSPOT -**

You plan to create Power BI dataset to analyze attendance at a school. Data will come from two separate views named View1 and View2 in an Azure SQL database.

View1 contains the columns shown in the following table.

Name	Data type
Attendance Date	Date
Student ID	Bigint
Period Number	Tinyint
Class ID	Int

View2 contains the columns shown in the following table.

Name	Data type
Class ID	Bigint
Class Name	Varchar(200)
Class Subject	Varchar(100)
Teacher ID	Int
Teacher First Name	Varchar(100)
Teacher Last Name	Varchar(100)
Period Number	Tinyint
School Year	Varchar(50)
Period Start Time	Time
Period End Time	Time

The views can be related based on the Class ID column.

Class ID is the unique identifier for the specified class, period, teacher, and school year. For example, the same class can be taught by the same teacher during two different periods, but the class will have a different class ID. You need to design a star schema data model by using the data in both views. The solution must facilitate the following analysis:

- » The count of classes that occur by period
- » The count of students in attendance by period by day
- » The average number of students attending a class each month

In which table should you include the Teacher First Name and Period Number fields? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## **Answer Area**

Teacher First Name:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Period Number:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Answer:

## **Answer Area**

Teacher First Name:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

Period Number:

Attendance fact
Class dimension
Teacher dimension
Teacher fact

## Explanation:

**Box 1: Teacher Dimension-**

**Box 2: Class Dimension-**

teacher's dim and class dim because teacher name and period number are static information that are directly related to the keys (teacher ID and class ID) so they belong in the relevant dimension tables. Since the "Class ID is unique for the class, period, teacher and school year" this information should be included in the class dimension table and not repeated for each student's attendance to keep your model as small as possible and to avoid mistakes.

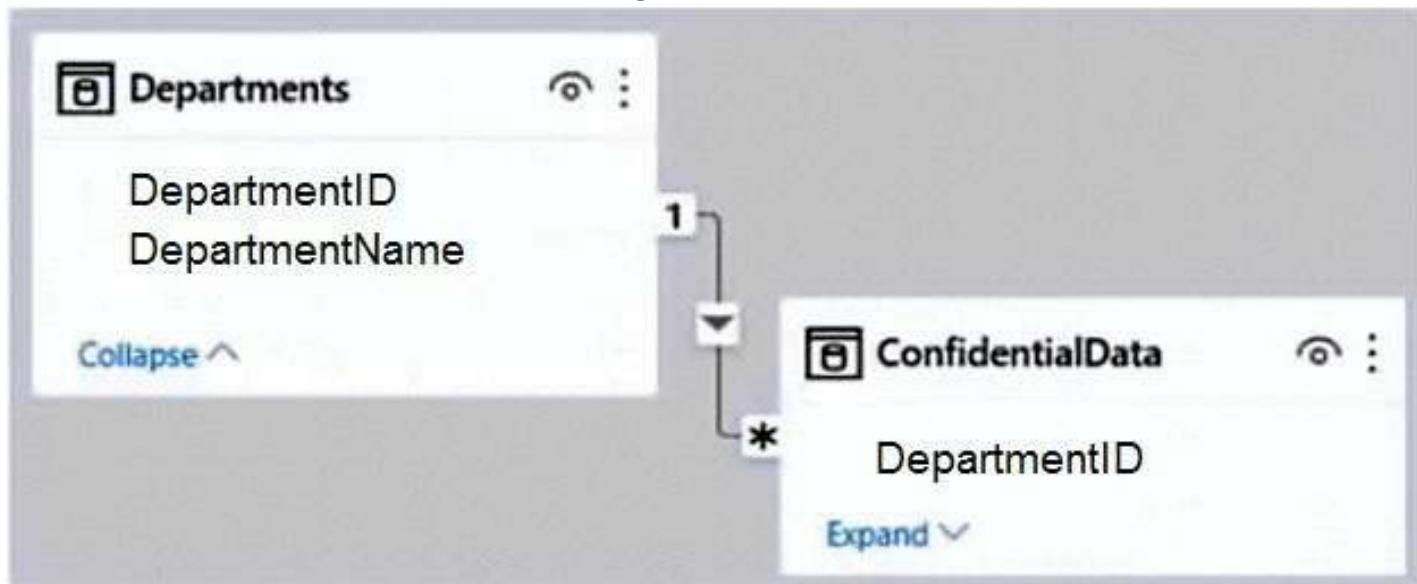
Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/star-schema>

CertyIQ

## Question: 76

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



There are four departments in the Departments table.

You need to ensure that users can see the data of their respective department only.

What should you do?

- A. Create a slicer that filters Departments based on DepartmentID.
- B. Create a row-level security (RLS) role for each department, and then define the membership of the role.
- C. Create a DepartmentID parameter to filter the Departments table.
- D. To the ConfidentialData table, add a calculated measure that uses the CURRENTGROUP DAX function.

## Answer: B

### Explanation:

Row-level security (RLS) with Power BI can be used to restrict data access for given users. Filters restrict data access at the row level, and you can define filters within roles.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

## Question: 77

CertyIQ

In Power BI Desktop, you are building a sales report that contains two tables. Both tables have row-level security (RLS) configured.

You need to create a relationship between the tables. The solution must ensure that bidirectional cross-filtering honors the RLS settings.

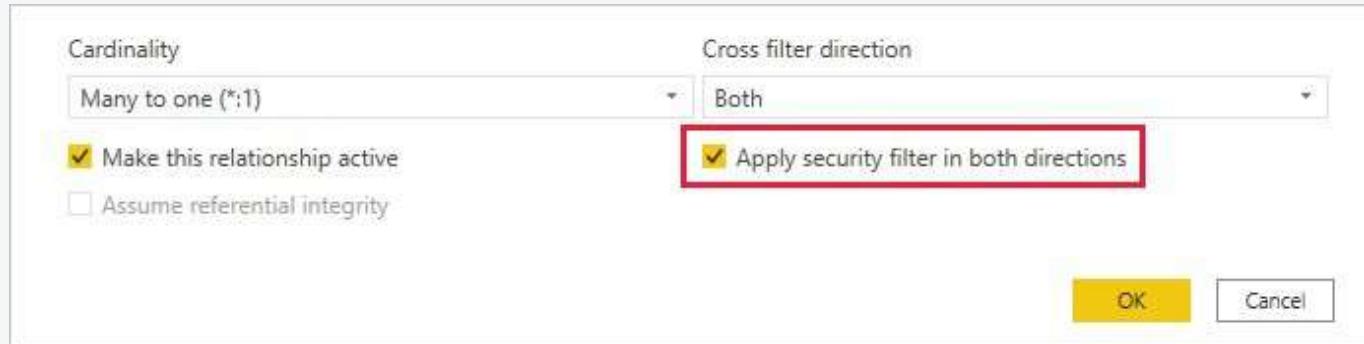
What should you do?

- A. Create an inactive relationship between the tables and select Apply security filter in both directions.
- B. Create an active relationship between the tables and select Apply security filter in both directions.
- C. Create an inactive relationship between the tables and select Assume referential integrity.
- D. Create an active relationship between the tables and select Assume referential integrity.

## Answer: B

### Explanation:

By default, row-level security filtering uses single-directional filters, whether the relationships are set to single direction or bi-directional. You can manually enable bi-directional cross-filtering with row-level security by selecting the relationship and checking the Apply security filter in both directions checkbox. Select this option when you've also implemented dynamic row-level security at the server level, where row-level security is based on username or login ID.



### Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

## Question: 78

CertyIQ

### HOTSPOT -

You have a column named UnitsInStock as shown in the following exhibit.

## Properties

### Formatting

#### Data type

Whole number

#### Format

Whole number

#### Percentage format

No

#### Thousands separator

Yes

#### Decimal places

0

### Advanced

#### Sort by column

UnitsInStock (Default)

#### Data category

Uncategorized

#### Summarize by

None

#### Is nullable

Yes

## Fields

Search

> Order Details

> Orders

> Products

CategoryID

Discontinued

ProductID

ProductName

QuantityPerUnit

ReorderLevel

SupplierID

UnitPrice

UnitsInStock

UnitsOnOrder

UnitsInStock has 75 non-null values, of which 51 are unique.

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

When a table visual is created in a report and UnitsInStock is added to the values, there will be [answer choice] in the table.

0 rows
1 row
51 rows
75 rows

Changing the Summarize by setting of the UnitsInStock column, and then adding the column to a table visual, will [answer choice] the number of rows in the table visual.

maintain
reduce
increase

## Answer:

### Answer Area

When a table visual is created in a report and UnitsInStock is added to the values, there will be [answer choice] in the table.

0 rows
1 row
51 rows
75 rows

Changing the Summarize by setting of the UnitsInStock column, and then adding the column to a table visual, will [answer choice] the number of rows in the table visual.

maintain
reduce
increase

## Explanation:

### Box 1: 75 rows -

Is nullable allows NULL values in the column.

### Box 2: reduce -

We're not dealing with a matrix here, we're dealing with a simple table. In simple tables values that occur more than once won't be shown in the rows multiple times. Since you're they tell you you have 51 unique values (and the other ones aren't null values) you can be sure it's more than 51. Since you'll already have 51 rows of unique values.

So the first is answer is 75.

Furthermore, when you add another table, change the sign to summarize, you will add up all the values of the 51 unique values and all the rest. Which means you will get one single row, displaying the sum of all these values.

Therefore, the second answer is reduce.

## Reference:

<https://blog.crossjoin.co.uk/2019/01/20/is-nullable-column-property-power-bi/>

**Question: 79**

CertyIQ

HOTSPOT -

You have a Power BI report.

You have the following tables.

Name	Description
Balances	The table contains daily records of closing balances for every active bank account. The closing balances appear for every day the account is live, including the last day.
Date	The table contains a record per day for the calendar years of 2000 to 2025. There is a hierarchy for financial year, quarter, month, and day.

You have the following DAX measure.

Accounts :=

```
CALCULATE (
DISTINCTCOUNT(Balances[AccountID]),
LASTDATE('Date'[Date]))
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Statements	Yes	No
A table visual that displays the date hierarchy at the year level and the [Accounts] measure will show the total number of accounts that were live throughout the year.	<input type="radio"/>	<input type="radio"/>
A table visual that displays the date hierarchy at the month level and the [Accounts] measure will show the total number of accounts that were live throughout the month.	<input type="radio"/>	<input type="radio"/>
A table visual that displays the date hierarchy at the day level and the [Accounts] measure will show the total number of accounts that were live that day.	<input type="radio"/>	<input type="radio"/>

**Answer:****Answer Area**

Statements	Yes	No
A table visual that displays the date hierarchy at the year level and the [Accounts] measure will show the total number of accounts that were live throughout the year.	<input type="radio"/>	<input checked="" type="radio"/>
A table visual that displays the date hierarchy at the month level and the [Accounts] measure will show the total number of accounts that were live throughout the month.	<input type="radio"/>	<input checked="" type="radio"/>
A table visual that displays the date hierarchy at the day level and the [Accounts] measure will show the total number of accounts that were live that day.	<input checked="" type="radio"/>	<input type="radio"/>

**Explanation:**

Box 1: No -

It will show the total number of accounts that were live at the last day of the year only.

Note:

DISTINCTCOUNT counts the number of distinct values in a column.

LASTDATE returns the last date in the current context for the specified column of dates.

Box 2: No -

It will show the total number of accounts that were live at the last day of the month only.

Box 3: Yes -

Reference:

<https://docs.microsoft.com/en-us/dax/distinctcount-function-dax> <https://docs.microsoft.com/en-us/dax/lastdate-function-dax>

## Question: 80

CertyIQ

You have the tables shown in the following table.

Table name	Column name
Campaigns	Campaign_ID
	Name
Ads	Ad_id
	Name
	Campaign_id
Impressions	Impression_id
	Ad_id
	Site_name
	Impression_time
	Impression_date

The Impressions table contains approximately 30 million records per month.

You need to create an ad analytics system to meet the following requirements:

⇒ Present ad impression counts for the day, campaign, and site\_name. The analytics for the last year are required. Minimize the data model size.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Create one-to-many relationships between the tables.
- B. Group the Impressions query in Power Query by Ad\_id, Site\_name, and Impression\_date. Aggregate by using the CountRows function.
- C. Create a calculated table that contains Ad\_id, Site\_name, and Impression\_date.
- D. Create a calculated measure that aggregates by using the COUNTROWS function.

**Answer: AB**

**Explanation:**

Incorrect:

Not C: A calculated table would increase the data model size.

Not D: Need Impression\_date etc.

Grouping in power query reduces the number of rows in the impression table that is gonna be loaded in the model. Creating relationships doesn't increase the size of the model. Therefore, the answer AB is correct!

Creating one-to-many relationships = optimizing the model. => A is correct.

Group the Impressions query in Power Query = pre-summarizing the data which results in a smaller and more efficient data model => B is correct.

### Question: 81

CertyIQ

HOTSPOT -

You are creating a Microsoft Power BI data model that has the tables shown in the following table.

Table name	Column name
Sales	SalesID
	ProductID
	DateKey
	SalesAmount
Products	ProductID
	ProductName
	ProductCategoryID
ProductCategory	ProductCategoryID
	CategoryName

The Products table is related to the ProductCategory table through the ProductCategoryID column. Each product has one product category.

You need to ensure that you can analyze sales by product category.

How should you configure the relationship from ProductCategory to Products? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Cardinality:

One-to-many
One-to-one
Many-to-many

Cross-filter direction:

Single
Both

Answer:

## Answer Area

Cardinality:

One-to-many
One-to-one
Many-to-many

Cross-filter direction:

Single
Both

Explanation:

One-to-many because several products have the same product category. Single because the performance is

much better and the assignment states only that you need to be able to analyze sales by product category.

#### **Box 1: One-to-many -**

The one-to-many and many-to-one cardinality options are essentially the same, and they're also the most common cardinality types.

Incorrect: A many-to-many relationship means both columns can contain duplicate values. This cardinality type is infrequently used. It's typically useful when designing complex model requirements. You can use it to relate many-to-many facts or to relate higher grain facts. For example, when sales target facts are stored at product category level and the product dimension table is stored at product level.

#### **Box 2: Single -**

Incorrect:

Bear in mind that bi-directional relationships can impact negatively on performance. Further, attempting to configure a bi-directional relationship could result in ambiguous filter propagation paths. In this case, Power BI Desktop may fail to commit the relationship change and will alert you with an error message.

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-relationships-understand>

#### **Question: 82**

CertyIQ

You import a Power BI dataset that contains the following tables:

- ⇒ Date
- ⇒ Product
- ⇒ Product Inventory

The Product Inventory table contains 25 million rows. A sample of the data is shown in the following table.

ProductKey	DateKey	MovementDate	UnitCost	UnitsIn	UnitsOut	UnitsBalance
167	20101228	28-Dec-10	0.19	0	0	875
167	20101229	29-Dec-10	0.19	0	0	875
167	20110119	19-Jan-11	0.19	0	0	875
167	20110121	21-Jan-11	0.19	0	0	875
167	20110122	22-Jan-11	0.19	0	0	875

The Product Inventory table relates to the Date table by using the DateKey column. The Product Inventory table relates to the Product table by using the ProductKey column.

You need to reduce the size of the data model without losing information.  
What should you do?

- A. Change Summarization for DateKey to Don't Summarize.
- B. Remove the relationship between Date and Product Inventory
- C. Change the data type of UnitCost to Integer.
- D. Remove MovementDate.

#### **Answer: D**

#### **Explanation:**

The DateKey and MovementDate columns have the same information. Movementdate can be removed.

D, because the best way to reduce the data model size is to remove the unnecessary column.

Incorrect:

Not C: Integer data type would lose data.

CertyIQ

### Question: 83

HOTSPOT -

You are enhancing a Power BI model that has DAX calculations.

You need to create a measure that returns the year-to-date total sales from the same date of the previous calendar year.

Which DAX functions should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

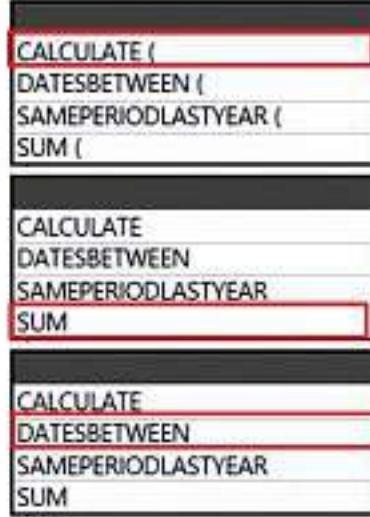
Hot Area:

#### Answer Area

```
Sales PYTD =  
VAR startyear =  
    STARTOFYEAR ( PREVIOUSYEAR ( 'Calendar'[Date] ) )  
VAR enddate =  
    LASTDATE ( Sales[Date] ) - 365  
RETURN  
    CALCULATE (  
        DATESBETWEEN ( 'Calendar'[Date], startyear, enddate ),  
        SAMEPERIODLASTYEAR ( Sales[sales] )  
    )  
    SUM ( Sales[sales] )  
CALCULATE (  
    DATESBETWEEN ( 'Calendar'[Date], startyear, enddate ),  
    SAMEPERIODLASTYEAR ( Sales[sales] )  
) SUM ( Sales[sales] )  
CALCULATE (  
    DATESBETWEEN ( 'Calendar'[Date], startyear, enddate ),  
    SAMEPERIODLASTYEAR ( Sales[sales] )  
) SUM ( Sales[sales] )
```

Answer:

## Answer Area

```
Sales PYTD =  
VAR startyear =  
    STARTOFTYEAR ( PREVIOUSYEAR ( 'Calendar'[Date] ) )  
VAR enddate =  
    LASTDATE ( Sales[Date] ) - 365  
RETURN  


```
CALCULATE (  
DATESBETWEEN (  
SAMEPERIODLASTYEAR (  
SUM (  
  
CALCULATE  
DATESBETWEEN  
SAMEPERIODLASTYEAR  
SUM  
  
CALCULATE  
DATESBETWEEN  
SAMEPERIODLASTYEAR  
SUM  
)
```



( Sales[sales] ),  
( 'Calendar'[Date], startyear, enddate )


```

### Explanation:

#### Box 1: CALCULATE -

Example:

Total sales on the last selected date =

```
CALCULATE (  
SUM ( Sales[Sales Amount] ),  
'Sales'[OrderDateKey] = MAX ( 'Sales'[OrderDateKey] )  
)
```

#### Box 2: SUM -

#### Box 3: DatesBetween

This is due to the expected parameters. DatesBetween expects two parameters as per the exhibit, SamePeriodLastYear expects one parameter (but two are used in the exhibit)

Reference:

<https://docs.microsoft.com/en-us/dax/calculate-function-dax>

<https://dax.guide/sameperiodlastyear/>

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are modeling data by using Microsoft Power BI. Part of the data model is a large Microsoft SQL Server table named Order that has more than 100 million records.

During the development process, you need to import a sample of the data from the Order table.

Solution: You add a report-level filter that filters based on the order date.

Does this meet the goal?

A. Yes

B. No

### Answer: B

#### Explanation:

You want the raw data, not a report with the data.

Instead add a WHERE clause to the SQL statement.

Reference:

<https://docs.microsoft.com/en-us/power-query/native-database-query>

## Question: 85

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI report that imports a date table and a sales table from an Azure SQL database data source.

The sales table has the following date foreign keys:

- ⇒ Due Date
- ⇒ Order Date
- ⇒ Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: For each date foreign key, you add inactive relationships between the sales table and the date table.

Does this meet the goal?

A. Yes

B. No

### Answer: B

#### Explanation:

Instead: Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables.

You can reference an inactive relationship with DAX function USERELATIONSHIP(), but using DAX is not mentioned here.

So follow this refactory methodology:

Create a copy of the role-playing table, providing it with a name that reflects its role. If it's an Import table, we recommend defining a calculated table. If it's a DirectQuery table, you can duplicate the Power Query query.

Source: <https://learn.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

CertyIQ

## Question: 86

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI report that imports a date table and a sales table from an Azure SQL database data source.

The sales table has the following date foreign keys:

- ⇒ Due Date
- ⇒ Order Date
- ⇒ Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: From Power Query Editor, you rename the date query as Due Date. You reference the Due Date query twice to make the queries for Order Date and

Delivery Date.

Does this meet the goal?

- A. Yes
- B. No

## Answer: A

### Explanation:

1. It's not going to be great solution from the performance side...but that's not part of the requirements
2. Answer is YES. That's not the best solution regarding the performance but it's not the subject.

The solution meets the goal because:

**1. Separate Date Tables for Each Foreign Key:**

- By renaming the original date query as **Due Date** and referencing it twice to create **Order Date** and **Delivery Date**, separate date tables are created for each foreign key.
- This allows proper relationships to be established between the **Sales** table and each **date table**, supporting analysis across all the date fields.

**2. Use of Referenced Queries:**

- Referencing a query in Power Query duplicates the logic without duplicating the data in memory. This approach ensures efficient management of the data model size.

**3. Aligns with Best Practices:**

- When multiple date fields in a fact table (e.g., **Sales**) need to be analyzed independently, creating separate date dimension tables for each foreign key is a best practice.

---

## Conclusion:

The proposed solution properly supports the analysis of sales over time based on all the date foreign keys, making the answer **A (Yes)**.

## Question: 87

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI report that imports a date table and a sales table from an Azure SQL database data source.

The sales table has the following date foreign keys:

- ⇒ Due Date
- ⇒ Order Date
- ⇒ Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: From the Fields pane, you rename the date table as **Due Date**. You use a DAX expression to create **Order Date** and **Delivery Date** as calculated tables.

Does this meet the goal?

- A. Yes
- B. No

## Answer: A

### Explanation:

Refactoring methodology -

Here's a methodology to refactor a model from a single role-playing dimension-type table, to a design with one table per role.

1. Remove any inactive relationships.
2. Consider renaming the role-playing dimension-type table to better describe its role. In the example (not

present here), the Airport table is related to the ArrivalAirport column of the Flight table, so it's renamed as Arrival Airport.

3. Create a copy of the role-playing table, providing it with a name that reflects its role. If it's an Import table, we recommend defining a calculated table. If it's a DirectQuery table, you can duplicate the Power Query query.

In the example, the Departure Airport table was created by using the following calculated table definition.

Departure Airport = 'Arrival Airport'

Create an active relationship to relate the new table.

4. Consider renaming the columns in the tables so they accurately reflect their role. In the example, all columns are prefixed with the word Departure or Arrival.

These names ensure report visuals, by default, will have self-describing and non-ambiguous labels. It also improves the Q&A experience, allowing users to easily write their questions.

5. Consider adding descriptions to role-playing tables. (In the Fields pane, a description appears in a tooltip when a report author hovers their cursor over the table.) This way, you can communicate any additional filter propagation details to your report authors.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

## Question: 88

CertyIQ

DRAG DROP -

You receive revenue data that must be included in Microsoft Power BI reports.

You preview the data from a Microsoft Excel source in Power Query as shown in the following exhibit.

	ABC Column1	ABC Column2	123 Columns	123 Column4	123 Columns	123 Column6
	<ul style="list-style-type: none"> <li>● Valid 100%</li> <li>● Error 0%</li> <li>● Empty 0%</li> </ul>	<ul style="list-style-type: none"> <li>● Valid 100%</li> <li>● Error 0%</li> <li>● Empty 0%</li> </ul>	<ul style="list-style-type: none"> <li>● Valid 100%</li> <li>● Error 0%</li> <li>● Empty 0%</li> </ul>	<ul style="list-style-type: none"> <li>● Valid 100%</li> <li>● Error 0%</li> <li>● Empty 0%</li> </ul>	<ul style="list-style-type: none"> <li>● Valid 100%</li> <li>● Error 0%</li> <li>● Empty 0%</li> </ul>	<ul style="list-style-type: none"> <li>● Valid 100%</li> <li>● Error 0%</li> <li>● Empty 0%</li> </ul>
1	Department	Product		2016	2017	2018
2	Bikes	Carbon mountainbike		1002815	1006617	1007814
3	Bikes	Aluminium road bike		1007024	1001454	1005842
4	Bikes	Touring bike		1003676	1005171	1001669
5	Accessories	Bell		76713	10247	60590
6	Accessories	Bottle holder		26690	29613	67955
7	Accessories	Satnav		83189	40113	71684
8	Accessories	Mobilephone holder		68641	80336	58099
						45706

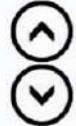
You plan to create several visuals from the data, including a visual that shows revenue split by year and product. You need to transform the data to ensure that you can build the visuals. The solution must ensure that the columns are named appropriately for the data that they contain.

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.

Select and Place:

- Actions**
- Select Department and Product and **Unpivot Columns**.
  - Select **Use First Row as Headers**.
  - Select Department and Product and **Unpivot Other Columns**.
  - Rename the Attribute column to Year and the Value column to Revenue.
  - Select **Use Header as First Row**.
  - Rename the Attribute column to Revenue and the Value column to Year.

**Answer Area**



**Answer:**

**Actions**

- Select Department and Product and **Unpivot Columns**.
- Select **Use First Row as Headers**.
- Select Department and Product and **Unpivot Other Columns**.
- Rename the Attribute column to Year and the Value column to Revenue.
- Select **Use Header as First Row**.
- Rename the Attribute column to Revenue and the Value column to Year.

**Answer Area**

- Select **Use First Row as Headers**.
- Select Department and Product and **Unpivot Other Columns**.
- Rename the Attribute column to Year and the Value column to Revenue.

**Explanation:**

**Correct Sequence = 2>3>4**

Select Use First Row as Headers

Select Department and Product and Unpivot Other Column

Rename the Attribute column to YEAR and the Value column to REVENUE

**Question: 89**

CertyIQ

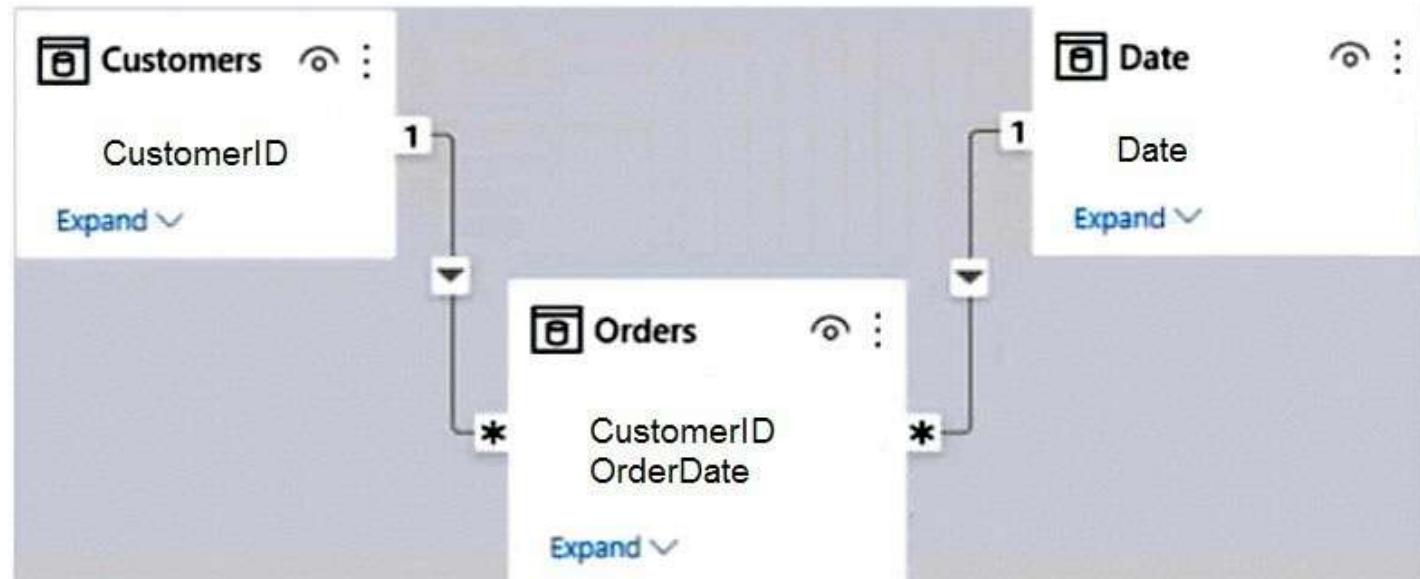
**HOTSPOT -**

You have a Power BI report named Orders that supports the following analysis:

- ⇒ Total sales over time
- ⇒ The count of orders over time
- ⇒ New and repeat customer counts

The data model size is nearing the limit for a dataset in shared capacity.

The model view for the dataset is shown in the following exhibit.



The data view for the Orders table is shown in the following exhibit.

OrderID	CustomerID	OrderDate	ProductID	UnitPrice	Quantity	Discount	SalesTotal
10293	TORTU	8/29/1996 12:00:00 AM	18	\$50	12	0	600
10294	TORTU	8/29/1996 12:00:00 AM	63	\$35.1	5	0	175.5
10295	TORTU	8/29/1996 12:00:00 AM	75	\$6.2	6	0	37.2
10296	RATTC	8/29/1996 12:00:00 AM	1	\$14.4	18	0	259.2

The Orders table relates to the Customers table by using the CustomerID column.

The Orders table relates to the Date table by using the OrderDate column.

For each of the following statements, select Yes if the statement is true, Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
Summarizing Orders by the CustomerID, OrderID, and OrderDate columns will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input type="radio"/>
Removing the CustomerID column from Orders will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input type="radio"/>
Removing the UnitPrice and Discount columns from Orders will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input type="radio"/>

## Answer:

### Answer Area

Statements	Yes	No
Summarizing Orders by the CustomerID, OrderID, and OrderDate columns will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input checked="" type="radio"/>
Removing the CustomerID column from Orders will reduce the model size while still supporting the current analysis.	<input type="radio"/>	<input checked="" type="radio"/>
Removing the UnitPrice and Discount columns from Orders will reduce the model size while still supporting the current analysis.	<input checked="" type="radio"/>	<input type="radio"/>

## Explanation:

Box 1: No -

Would not support total sales over time.

Box 2: No -

Would not support new and repeat customer counts

Box 3: Yes

No: Summarizing orders with these columns may actually increase the model size as creates a more detailed representation of the data. It will not reduce the model size.

No: Since there's a relationship between the Orders table and the Customers table using the CustomerID column, removing it might affect the ability to analyze data by customer, so it may not support the current analysis.

Yes: Removing unnecessary columns like UnitPrice and Discount that are not used in the analysis will likely reduce the model size without affecting the ability to analyze total sales over time, order counts, and customer counts.

## HOTSPOT -

You are building a financial report by using Power BI.

You have a table named financials that contains a column named Date and a column named Sales.

You need to create a measure that calculates the relative change in sales as compared to the previous quarter.

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

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

```
Sales QoQ% =
```

```
IF(
```

```
    ISFILTERED('financials'[Date]),
```

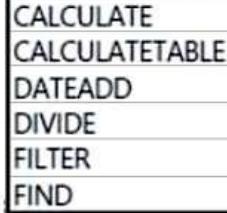
```
    ERROR("Uh oh."),
```

```
    VAR PREV_QUARTER =
```



```
(SUM('financials'[Sales]),
```

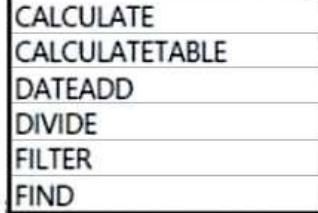
```
'financials'[Date].[Date], -1, QUARTER)
```



```
)
```

```
RETURN
```

```
(SUM('financials'[Sales]) - PREV_QUARTER, PREV_QUARTER)
```



**Answer:**

## Answer Area

```
Sales QoQ% =  
IF(  
    ISFILTERED('financials'[Date]),  
    ERROR("Uh oh."),  
    VAR PREV_QUARTER =  
        CALCULATE  
        CALCULATETABLE  
        DATEADD  
        DIVIDE  
        FILTER  
        FIND  
        (SUM('financials'[Sales]),  
         ('financials'[Date].[Date], -1, QUARTER))  
    )  
    RETURN  
        CALCULATE  
        CALCULATETABLE  
        DATEADD  
        DIVIDE  
        FILTER  
        FIND  
        (SUM('financials'[Sales]) - PREV_QUARTER, PREV_QUARTER)  
)
```

### Explanation:

Box 1: CALCULATE -

Calculate the sum.

Box 2: DATEADD -

DATEADD -1 QUARTER will give the previous month.

Box 3: DIVIDE -

Use DIVIDE to get the relative change.

### Question: 91

CertyIQ

DRAG DROP -

You are creating a Power BI model and report.

You have a single table in a data model named Product. Product contains the following fields:

- ⇒ ID
- ⇒ Name
- ⇒ Color
- ⇒ Category

## ⇒ Total Sales

You need to create a calculated table that shows only the top eight products based on the highest value in Total Sales.

How should you complete the DAX expression? To answer, drag the appropriate values to the correct targets. Each value 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.

Select and Place:

**Values**

- ASC
- DESC
- RELATEDTABLE
- CALCULATETABLE
- MAXX
- TOPN

**Answer Area**

Top 8 Products =  Value (8, 'Product', 'Product'[Total Sales],  Value )

## Answer:

**Values**

- ASC
- DESC
- RELATEDTABLE
- CALCULATETABLE
- MAXX
- TOPN

**Answer Area**

Top 8 Products = TOPN (8, 'Product', 'Product'[Total Sales], DESC )

## Explanation:

Box 1: TOPN -

TOPN returns the top N rows of the specified table.

Syntax: TOPN(<n\_value>, <table>, <orderBy\_expression>, [<order>[, <orderBy\_expression>, [<order>]]])

Box 2: DESC -

Descending order to get the highest values first.

## Reference:

<https://docs.microsoft.com/en-us/dax/topn-function-dax>

## Question: 92

CertyIQ

You are creating a sales report in Power BI for the NorthWest region sales territory of your company. Data will come from a view in a Microsoft SQL Server database. A sample of the data is shown in the following table:

ID	ProductKey	OrderDate	ShipDate	CustomerKey	SalesTerritoryRegion	SalesOrderNumber	SalesOrderLineNumber	OrderQuantity	UnitPrice	SalesAmount	TaxAmount	Freight
1	310	2010-12-29	2011-01-05	21768	Canada	SO43697	1	1	3578.27	3578.27	286.2616	89.4568
2	346	2010-12-29	2011-01-05	27365	France	SO43698	1	1	3399.99	3399.99	271.9992	84.9998
3	346	2010-12-29	2011-01-05	76537	NorthWest	SO43699	1	1	3399.99	3399.99	271.9992	84.9998
4	336	2010-12-29	2011-01-05	34256	SouthWest	SO43700	1	1	699.0982	699.0982	55.9279	17.4775
5	346	2010-12-29	2011-01-05	34253	Australia	SO43701	1	1	3399.99	3399.99	271.9992	84.9998
6	311	2010-12-30	2011-01-06	12543	SouthWest	SO43702	1	1	3578.27	3578.27	286.2616	89.4568
7	310	2010-12-30	2011-01-06	76545	Australia	SO43703	1	1	3578.27	3578.27	286.2616	89.4568

The report will facilitate the following analysis:

- ⇒ The count of orders and the sum of total sales by Order Date
- ⇒ The count of customers who placed an order
- ⇒ The average quantity per order

You need to reduce data refresh times and report query times.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Set the data type for SalesOrderNumber to Decimal Number.
- B. Remove the CustomerKey and ProductKey columns.
- C. Remove the TaxAmt and Freight columns.
- D. Filter the data to only the NorthWest region sales territory.

**Answer: CD**

**Explanation:**

C: Remove columns that are not used in the report.

D: Reduce the number of rows.

Incorrect:

Not A: Not possible.

Not B: Need CustomerKey to count of customers who placed an order

This question presents a scenario where you're tasked with creating a sales report in Power BI for the NorthWest region. The data originates from a Microsoft SQL Server database view, and the report aims to analyze:

The count of orders and the sum of total sales by Order Date

The count of customers who placed an order

The average quantity per order

To enhance data refresh and query times, the suggested actions are:

**C. Remove the TaxAmt and Freight columns.**

**D. Filter the data to only the NorthWest region sales territory.**

**Justification:**

**Removing Unnecessary Columns:** By eliminating columns like TaxAmt and Freight that aren't required for the specified analyses, you reduce the dataset's size. This streamlining leads to faster data refreshes and more efficient queries.

**Filtering Data to Relevant Regions:** Applying a filter to include only the NorthWest region ensures that only pertinent data is loaded into Power BI. This targeted approach minimizes the volume of data processed, further improving performance.

Implementing these steps aligns with best practices for optimizing Power BI performance, as it reduces the amount of data handled, leading to quicker refresh and query times.

**Question: 93**

CertyIQ

You are creating a Power BI model that contains a table named Store. Store contains the following fields.

Name	Data type
Store ID	Whole Number
Store Name	Text
City	Text
State/Province	Text
Country	Text

You plan to create a map visual that will show store locations and provide the ability to drill down from Country to State/Province to City.

What should you do to ensure that the locations are mapped properly?

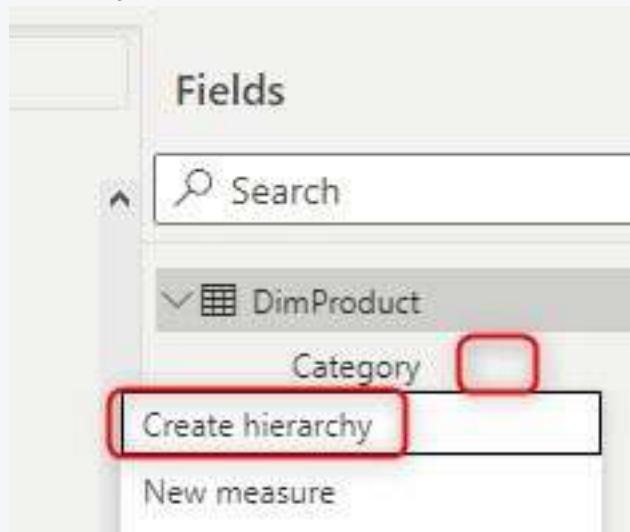
- A. Change the data type of City, State/Province, and Country.
- B. Set Summarization for City, State/Province, and Country to Don't summarize.
- C. Set the data category of City, State/Province, and Country.
- D. Create a calculated column that concatenates the values in City, State/Province, and Country.

**Answer: C****Explanation:**

A hierarchy is a set of fields categorized in a hierarchical way that one level is the parent of another level. Values of the parent level can be drilled down to the lower level.

Create Hierarchy -

Right-click on the field you want to set as level 1 of the hierarchy in the fields list, and then select Create Hierarchy.



After that, you will see a new hierarchy created named your field name Category plus the word Hierarchy. This would have a hierarchy icon beside it and also an option to expand to the fields of the hierarchy. If you expand, you will see a copy of the Category field in there too.

## Fields

Search

DimProduct

Category

Category Hierarchy

Category

Product

ProductKey

Subcategory

FactInternetSales

Etc.

Reference:

<https://radacad.com/what-a-power-bi-hierarchy-is-and-how-to-use-it>

CertyIQ

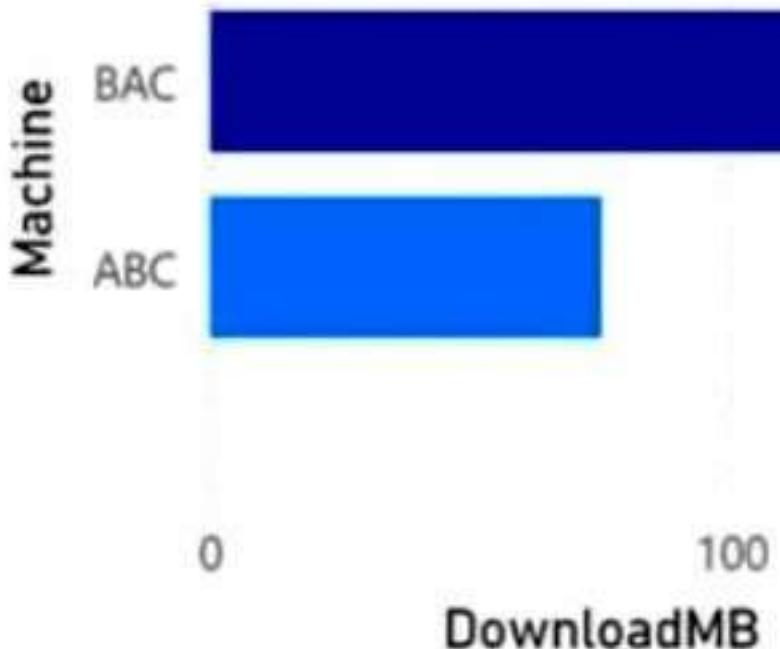
### Question: 94

You are building a data model for a Power BI report.

You have data formatted as shown in the following table.

Machine-User	DownloadMB
ABC-123	75
BAC-657	125

You need to create a clustered bar chart as shown in the following exhibit.



What should you do?

- A. From Power Query Editor, split the Machine-User column by using a delimiter.
- B. From Power Query Editor, create a column that contains the last three digits of the Machine-User column.
- C. In a DAX function, create two calculated columns named Machine and User by using the SUBSTITUTE function.
- D. In a DAX function, create two measures named Machine and User by using the SUBSTITUTE function.

**Answer: A**

**Explanation:**

Split a column of text (Power Query)

You can split a column with a text data type into two or more columns by using a common delimiter character. For example, a Name column that contains values written as <LastName>, <FirstName> can be split into two columns using the comma (,) character.

Note: Power Query is an Extract Transform Load (ETL) tool. It allows us to Download and fetch data from different sources. We call this data ingestion Combine, clean, and model this data. We call this data wrangling

**Reference:**

<https://support.microsoft.com/en-us/office/split-a-column-of-text-power-query-5282d425-6dd0-46ca-95bf-8e0da9539662>

**Question: 95**

**CertyIQ**

DRAG DROP -

You need create a date table in Power BI that must contain 10 full calendar years, including the current year. How should you complete the DAX expression? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
CALENDAR	Date =
CALENDARAUTO	var var1 = <input type="text"/> Value ( <input type="text"/> Value )()
DATE	return
EOMONTH	<input type="text"/> Value (
TODAY	DATE(var1 -9, 01, 01), DATE(var1, 12, 31)
YEAR	)

Answer:

Values	Answer Area
CALENDAR	Date =
CALENDARAUTO	var var1 = <input type="text"/> YEAR ( <input type="text"/> TODAY )()
DATE	return
EOMONTH	<input type="text"/> CALENDAR (
TODAY	DATE(var1 -9, 01, 01), DATE(var1, 12, 31)
YEAR	)

Explanation:

Box 1: **YEAR** -

Get the current year.

Box 2: **TODAY** -

TODAY returns the current date.

Box 3: **CALENDAR** -

CALENDAR returns a table with a single column named Date containing a contiguous set of dates. The range of dates is from the specified start date to the specified end date, inclusive of those two dates.

The following formula returns a table with dates between January 1st, 2005 and December 31st, 2015.

CALENDAR (

DATE ( 2005, 1, 1 ),

DATE ( 2015, 12, 31 )

Reference:

<https://dax.guide/calendar/>

CertyIQ

## Question: 96

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI report that imports a date table and a sales table from an Azure SQL database data source.

The sales table has the following date foreign keys:

- ⇒ Due Date
- ⇒ Order Date
- ⇒ Delivery Date

You need to support the analysis of sales over time based on all the date foreign keys.

Solution: You create measures that use the USERELATIONSHIP DAX function to filter sales on the active relationship between the sales table and the date table.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

You can't use USERELATIONSHIP() to filter on an active relationship, but need additional inactive relationships

Instead: Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

CertyIQ

## Question: 97

HOTSPOT -

You have a Power BI report that contains a measure named Total Sales.

You need to create a new measure that will return the sum of Total Sales for a year up to a selected date.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Measure =

```
TOTALYTD  
CALCULATE  
SUM  
EVALUATE
```

[Total Sales],

```
'Date'[Date]  
TODAY()  
EOMONTH('Date'[Date])  
LASTDATE('Date'[Date])
```

Answer:

## Answer Area

Measure =

TOTALYTD
CALCULATE
SUM
EVALUATE

[Total Sales],

'Date'[Date]
)
TODAY()
EOMONTH('Date'[Date])
LASTDATE('Date'[Date])

### Explanation:

Box 1: **TOTALYTD** -

TOTALYTD evaluates the specified expression over the interval which begins on the first day of the year and ends with the last date in the specified date column after applying specified filters.

Syntax: TOTALYTD (

<Expression>,

<Dates>

[, <Filter>]

[, <YearEndDate>]

Expression - The expression to be evaluated.

Dates - The name of a column containing dates or a one column table containing dates.

Example:

TOTALYTD ( -- 2007-01-01 : 2007-05-12

[Sales Amount],

'Date'[Date]

Box 2: **'Date'[Date]**

Reference:

**Question: 98**

DRAG DROP -

You are modifying a Power BI model by using Power BI Desktop.  
You have a table named Sales that contains the following fields.

Name	Data type
Transaction ID	Whole Number
Customer Key	Whole Number
Sales Date Key	Date
Sales Amount	Whole Number

You have a table named Transaction Size that contains the following data.

Transaction Size ID	Transaction Size	Min	Max
1	Small	0	10,000
2	Medium	10,001	100,000
3	Large	100,001	999,999,999

You need to create a calculated column to classify each transaction as small, medium, or large based on the value in Sales Amount.

How should you complete the code? To answer, drag the appropriate values to the correct targets. Each value 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.

NOTE: Each correct selection is worth one point.

Select and Place:

Values	Answer Area
ALL	Transaction Size =
AND	VAR SalesTotal = 'Sales'[Sales]
CALCULATE	VAR FilterSegment =
FILTER	Value (
OR	'Transaction Size',
SUM	Value (
	'Transaction Size'[Min] <= SalesTotal,
	'Transaction Size'[Max] >= SalesTotal
	)
	VAR Result =
	Value ( DISTINCT ( 'Transaction Size'[Transaction Size], FilterSegment )
	RETURN
	Result

**Answer:**

Values
ALL
AND
CALCULATE
FILTER
OR
SUM

### Answer Area

```

Transaction Size =
VAR SalesTotal = 'Sales'[Sales]
VAR FilterSegment =
    FILTER (
        'Transaction Size',
        AND (
            'Transaction Size'[Min] <= SalesTotal,
            'Transaction Size'[Max] >= SalesTotal
        )
    )
VAR Result =
    CALCULATE ( DISTINCT ( 'Transaction Size'[Transaction Size] ), FilterSegment )
RETURN
Result

```

### Explanation:

**Box 1: FILTER**

**Box 2: AND**

**Box 3: CALCULATE**

FILTER needs to be followed by table reference ,

AND is needed to check the limits , and

CALCULATE because needs to be followed by expression such as distinct in this case

Reference:

<https://docs.microsoft.com/en-us/dax/calculate-function-dax>

<https://docs.microsoft.com/en-us/dax/filter-function-dax>

### Question: 99

CertyIQ

You have a Power BI report for the procurement department. The report contains data from the following tables.

<b>Table name</b>	<b>Source</b>	<b>Description</b>	<b>Column name</b>	<b>Approximate record count</b>
Suppliers	Microsoft Dynamics 365	A list of all the suppliers approved for use by the company.	<ul style="list-style-type: none"> <li>• ID</li> <li>• Name</li> <li>• Country</li> </ul>	100,000
LineItems	Microsoft Dynamics 365	All individual purchases made by employees across the company. An average of five line items per invoice.	<ul style="list-style-type: none"> <li>• ID</li> <li>• Invoice ID</li> <li>• Invoice Date</li> <li>• Supplier ID</li> <li>• Description</li> <li>• Units</li> <li>• Price per Unit</li> <li>• Discount</li> <li>• Price</li> </ul>	1,000,000,000

There is a one-to-many relationship from Suppliers to LineItems that uses the ID and Supplier ID columns. The report contains the visuals shown in the following table.

<b>Name</b>	<b>Used field</b>	<b>Filter</b>
Supplier usage by count and value of invoices	Suppliers[ID] Suppliers[Name] LineItems[Invoice ID] LineItems[Price]	None
Spend by supplier location	Suppliers[Country] LineItems[Price]	None
Top 10 largest invoices last month	LineItems[Invoice ID] LineItems[Price]	LineItems[Invoice Date] in last calendar month

You need to minimize the size of the dataset without affecting the visuals. What should you do?

- Merge Suppliers and LineItems.
- Remove the LineItems[Description] column.
- Remove the rows from LineItems where LineItems[Invoice Date] is before the beginning of last month.
- Group LineItems by LineItems[Invoice ID] and LineItems[Invoice Date] with a sum of LineItems[Price].

**Answer: B**

**Explanation:**

Remove a column that is not used in the visuals reduces the size of the dataset.

Incorrect:

Not A: Merging the tables would increase the dataset.

Not C: Two of the visuals need historical data.

Not D: Grouping would not affect size.

CertyIQ

**Question: 100**

You have a Power BI report for the marketing department. The report reports on web traffic to a blog and contains data from the following tables.

Table name	Source	Description	Column name
Posts	Blog RSS feed	An XML representation of all the blog posts from your company's website	<ul style="list-style-type: none"><li>• Publish Date</li><li>• URL</li><li>• Title</li><li>• Full Text</li><li>• Summary</li></ul>
Traffic	Website logs	Activity data from your company's entire website	<ul style="list-style-type: none"><li>• DateTime</li><li>• URL Visited</li><li>• IP Address</li><li>• Browser Agent</li><li>• Referring URL</li></ul>

There is a one-to-many relationship from Posts to Traffic that uses the URL and URL Visited columns. The report contains the visuals shown in the following table.

Name	Used field	Filter
Top 10 blog posts of all time	Posts[Title] Traffic[DateTime]	None
Top 10 blog posts from the last seven days	Posts[Title] Traffic[DateTime]	Traffic[DateTime] is in the last 7 days
Blog visits over time	Traffic[DateTime] Traffic[URL Visited]	Traffic[URL Visited] contains "blog"
Top 10 external referrals to the blog of all time	Traffic[Referring URL]	Traffic[URL Visited] contains "blog" AND Traffic[Referring URL] does not start with "/"

The dataset takes a long time to refresh.

You need to modify Posts and Traffic queries to reduce load times.

Which two actions will reduce the load times? Each correct answer presents part of the solution.

NOTE:

Each correct selection is worth one point.

- Remove the rows in Posts in which Posts[Publish Date] is in the last seven days.
- Remove the rows in Traffic in which Traffic[URL Visited] does not contain blog.
- Remove Traffic[IP Address], Traffic[Browser Agent], and Traffic[Referring URL].

D. Remove Posts[Full Text] and Posts[Summary].

E. Remove the rows in Traffic in which Traffic[Referring URL] does not start with /.

**Answer: BD**

**Explanation:**

B: Only blog posts rows are useful for the visuals.

D: These two columns are not used in the visuals and can be removed.

Incorrect:

Not A: Three visuals need historical data.

Not C: Traffic[Referring URL] is used in one of the visuals and therefore cannot be removed.

Not E: These rows are used in 3 visuals.

**Question: 101**

CertyIQ

HOTSPOT

You are creating a quick measure as shown in the following exhibit.

## Quick measures

### Calculation

Rolling average

Calculate the average of base value over a certain number of periods before and/or after each date.

[Learn more](#)

### Base value

Add data fields here

### Date

Add data fields here

### Period

Days

### Periods before

1

### Periods after

0

### Fields

Search

- ▼  Customer
- ▼  Product
- ▲  Sales
- ▶  Date
- Gross Margin
- Month
- Σ MonthNumberOfYear
- Σ Quarter
- Σ Sales\_SRC
- ▶  Time Intelligence
- Total Cost
- Total Order Qty
- Total Sales
- Total Sales rolling average
- Unit Price
- Σ Year

You need to create a monthly rolling average measure for Sales over time.

How should you configure the quick measure calculation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Base value:

▼

- Month
- Total Cost
- Total Order Qty
- Total Sales
- Year

Date:

▼

- Date
- Month
- Total Sales
- Year

Period:

▼

- Days
- Months
- Quarters
- Years

Answer:

## Answer Area

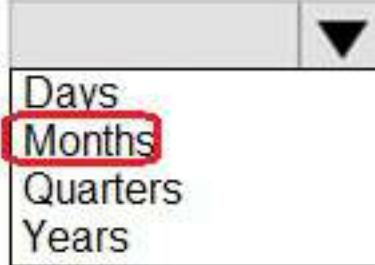
Base value:



Date:



Period:



### Explanation:

1. Total Sales;
2. Date;
3. Months

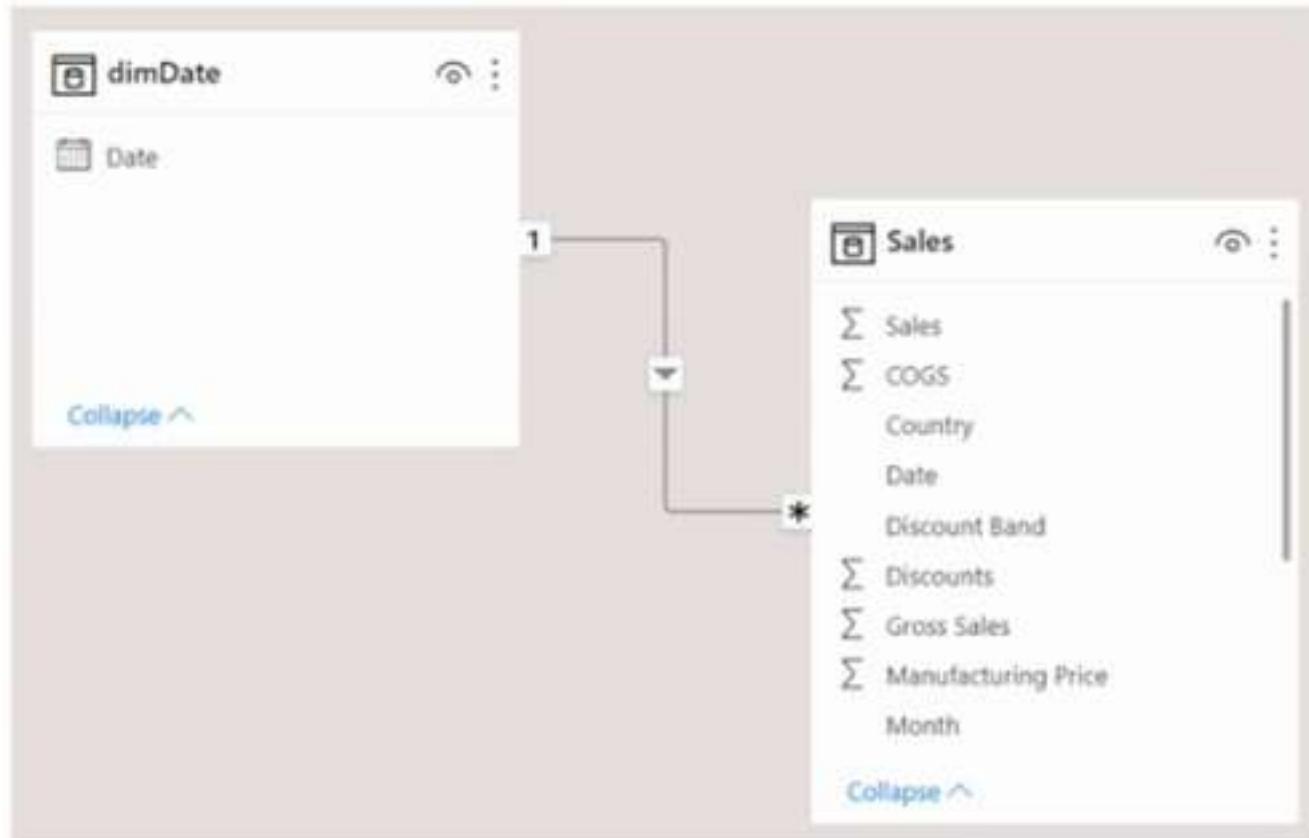
To achieve this, you should set up the quick measure calculation with the following parameters:

1. **Base value:** Select 'Total Sales' to serve as the foundational metric for the rolling average.
2. **Field:** Choose the 'Date' field to define the time dimension over which the rolling average will be calculated.
3. **Period:** Set this to 'Months' to specify that the rolling average should be computed on a monthly basis.

By configuring these options, Power BI will calculate a monthly rolling average of total sales, allowing for a more insightful analysis of sales trends over time.

**Question: 102**

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



The Sales table contains records of sales by day from the last five years up until today's date.

You plan to create a measure to return the total sales of March 2021 when March 2022 is selected.

Which DAX expression should you use?

- A. Calculate (Sum(Sales[Sales]), PREVIOUSYEAR( dimDate[Date] ))
- B. TOTALYTD (SUM(Sales[Sales]), dimDate[Date] )
- C. Calculate (SUM(Sales[Sales]), SAMEPERIODLASTYEAR(dimDate[Date] ))
- D. SUM(Sales[Sales])

**Answer: C****Explanation:**

Calculate (SUM(Sales[Sales]), SAMEPERIODLASTYEAR(dimDate[Date] ))

The correct DAX expression to achieve this is:

DAX

 Copy  Edit

```
CALCULATE(SUM(Sales[Sales]), SAMEPERIODLASTYEAR(dimDate[Date]))
```

This formula utilizes the `SAMEPERIODLASTYEAR` function, which shifts the dates in the current context back by one year, ensuring that the measure returns the sales data for the same period in the previous year.

Alternative functions like `PREVIOUSYEAR` are not suitable in this scenario, as they return all dates from the entire previous year, which would not limit the data to the specific month of March.

Therefore, using `SAMEPERIODLASTYEAR` within the `CALCULATE` function is the appropriate approach to obtain the desired result.

### Question: 103

CertyIQ

You use Power BI Desktop to load data from a Microsoft SQL Server database.

While waiting for the data to load, you receive the following error.

**ERROR [08001] timeout expired**

You need to resolve the error.

What are two ways to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Reduce the number of rows and columns returned by each query.
- B. Split long-running queries into subsets of columns and use Power Query to merge the queries.
- C. Use Power Query to combine long-running queries into one query.
- D. Disable query folding on long running queries.

### Answer: AB

#### Explanation:

- A. Reduce the number of rows and columns returned by each query.
- B. Split long-running queries into subsets of columns and use Power Query to merge the queries.

#### **A. Reduce the number of rows and columns returned by each query.**

Limiting the amount of data returned by the queries decreases the load on the Power BI engine and reduces the likelihood of memory or performance-related issues.

Filtering the data at the source can optimize query execution and minimize processing time.

#### **B. Split long-running queries into subsets of columns and use Power Query to merge the queries.**

Dividing large or complex queries into smaller, manageable pieces reduces the strain on the system.

Power Query can be used to combine these subsets later, allowing the system to process the data in chunks rather than a single large operation.

#### Why the Other Options Are Incorrect:

##### C. Use Power Query to combine long-running queries into one query.

Combining queries into a single query increases complexity and processing load, which can exacerbate performance issues.

##### D. Disable query folding on long-running queries.

Query folding allows Power BI to push transformations back to the database server, which is more efficient. Disabling query folding can result in increased data transfer and slower performance.

#### Explanation:

The goal is to address the root cause of the error—likely caused by large datasets or complex queries—and ensure efficient data processing in Power BI. By reducing data size (A) and breaking queries into smaller subsets (B), the error can be resolved effectively.

#### Question: 104

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

From Power Query Editor, you profile the data shown in the following exhibit.

	A IoT GUID	B IoT DateTime	C IoT ID	
	Valid Error Empty	100% 0% 0%	Valid Error Empty	100% 0% 0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000	
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001	
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002	
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003	
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004	
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005	

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You split the IoT DateTime column into a column named Date and a column named Time.

Does this meet the goal?

- A. Yes
- B. No

**Answer: A**

**Explanation:**

The correct answer is A. Splitting datetime column will improve the performance even if it generates one more column, having less unique values in separated date and time columns will achieve better compression.

**Question: 105**

**CertyIQ**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

From Power Query Editor, you profile the data shown in the following exhibit.

	IoT GUID	IoT DateTime	IoT ID	
	● Valid ● Error ● Empty	100% 0% 0%	● Valid ● Error ● Empty	100% 0% 0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000	
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001	
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002	
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003	
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004	
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005	

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You remove the IoT GUID column and retain the IoT ID column.

Does this meet the goal?

- A. Yes
- B. No

**Answer: A**

**Explanation:**

yes is a correct.

it says : The IoT GUID and IoT ID columns are unique to each row in the query.

BOTH UNIQUES to EACH row...

So basically each one can be used as primary key for the table.

removing the guid column does improve performance.

Better to remove the guid because it 's a 16-byte binary data type compared to a unsigned long which is a 4-byte binary data type

There are two requirements to the question - improve the performance and enable the required analysis.

Removing the GUID column will do exactly that - it will improve the performance because it is one less column of data to load but it still enables the required analysis given the IOT ID column is equally unique.

## Question: 106

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

From Power Query Editor, you profile the data shown in the following exhibit.

	IoT GUID	IoT DateTime	IoT ID
	<ul style="list-style-type: none"><li>● Valid 100%</li><li>● Error 0%</li><li>● Empty 0%</li></ul>	<ul style="list-style-type: none"><li>● Valid 100%</li><li>● Error 0%</li><li>● Empty 0%</li></ul>	<ul style="list-style-type: none"><li>● Valid 100%</li><li>● Error 0%</li><li>● Empty 0%</li></ul>
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You change the IoT DateTime column to the Date data type.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

B is correct because changing the IoT DateTime column to the Date data type alone will not meet the goal of analyzing IoT events by the hour and day of the year in power query.

### Question: 107

CertyIQ

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Change any DAX measures to use iterator functions.
- B. Remove unused columns from tables in the data model.
- C. Replace the default visuals with AppSource visuals.
- D. Increase the number of times that the dataset is refreshed.

### Answer: B

#### Explanation:

B. Remove unused columns from tables in the data model.

Unused columns increase the size of the data model, which can slow down report rendering and query performance. By eliminating unnecessary columns, you reduce memory consumption and improve overall efficiency.

Additionally, optimizing DAX measures and reducing the number of visuals on a page can further enhance performance. Would you like more details on Power BI optimization techniques?

### Question: 108

CertyIQ

DRAG DROP

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

A one-to-many relationship exists between the tables.

You have a report that contains a report-level filter for Products.

You need to create a measure that will return the percent of total sales for each product. The measure must respect the report-level filter when calculating the total.

How should you complete the DAX measure? To answer, drag the appropriate DAX functions to the correct targets. Each function 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.

NOTE: Each correct selection is worth one point.

**DAX Function****Answer Area**

ALL	Percent of Product Sales = VAR ProductSales = SUM ('Sales' [Sales]) VAR AllSales =
ALLSELECTED	
CALCULATE	
FILTER	
SELECTEDVALUE	

**Answer:****DAX Function****Answer Area**

ALL	Percent of Product Sales = VAR ProductSales = SUM ('Sales' [Sales]) VAR AllSales =
ALLSELECTED	
CALCULATE	
FILTER	
SELECTEDVALUE	

**Explanation:**

- 1.Calculate
2. ALLSELECTED.

ALLSELECTED Removes only the filter on the expression visual but respect all external filters.

ALLSELECTED: Returns all the rows in a table, or all the values in a column, ignoring any filters that may have been applied inside the query, but keeping filters that come from the outside.

<https://mitchellpearson.com/2020/09/14/understanding-row-context-in-dax-and-power-bi/#:~:text=ALLSELECTED%20DAX%20functions,coming%20from%20the%20inner%20query>

**Question: 109****CertyIQ**

You have a Power BI data model that analyzes product sales over time. The data model contains the following tables.

Table name	Column name	Data type
Product	Product ID	Whole number
	Product Name	Text
	Product Category	Text
Sales	Product ID	Whole number
	Order Date	Date
	Ship Date	Date
	Delivered Date	Date
	Invoice Number	Whole number
	Quantity	Whole number
	Sales Amount	Decimal number

A one-to-many relationship exists between the tables.

The auto date/time option for the data model is enabled.

You need to reduce the size of the data model while maintaining the ability to analyze product sales by month and quarter.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct answer is worth one point.

- A. Create a relationship between the Date table and the Sales table.
- B. Disable the auto date/time option.
- C. Create a Date table and select Mark as Date Table.
- D. Disable the load on the Date table.
- E. Remove the relationship between the Product table and the Sales table.

**Answer: AC**

**Explanation:**

AC is the correct answer. B is not needed as: It's important to note that when you specify your own date table, Power BI Desktop does not auto-create the hierarchies that it would otherwise build into your model on your behalf. If you later deselect your date table (and no longer have a manually set date table), Power BI Desktop recreates the automatically created built-in date tables for you, for the date columns in the table.

<https://learn.microsoft.com/en-us/power-bi/transform-model/desktop-date-tables>

**Question: 110**

**CertyIQ**

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Implement row-level security (RLS).
- B. Remove unused columns from tables in the data model.
- C. Replace the default visuals with AppSource visuals.
- D. Enable visual interactions.

**Answer: B**

**Explanation:**

Remove unused columns from tables in the data model.

When a Power BI report is slow to load and interact with, optimizing the dataset and data model can significantly improve performance. Here's why **B. Remove unused columns from tables in the data model** is the correct choice:

**Reasoning**

**Data Model Size:**

The PBIX file is large (550 MB) due to the dataset's imported fact table with 12 million rows and potentially many unnecessary columns.

Each column in the data model consumes memory and processing power during report rendering, even if it is not used in any visuals or calculations.

**Performance Optimization:**

Removing unused columns reduces the data model size, which improves memory usage and query performance.

A smaller data model leads to faster data refreshes, quicker load times, and improved responsiveness when users interact with visuals.

**Focus on Visual Load Time:**

The issue isn't related to security, visual types, or interactivity but rather the underlying data model size and efficiency.

**Why Not the Other Options?**

**A. Implement row-level security (RLS):**

RLS controls user access to specific data rows, but it doesn't improve report loading or visual performance directly.

It could even add complexity and slightly increase query execution time.

**C. Replace the default visuals with AppSource visuals:**

AppSource visuals often have more features but can introduce additional rendering overhead, making reports slower. Replacing default visuals with AppSource visuals would likely worsen performance.

#### D. Enable visual interactions:

Enabling visual interactions controls how visuals on a report page respond to each other. However, it doesn't directly address performance issues caused by a large data model or dataset.

### Question: 111

CertyIQ

HOTSPOT

-

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

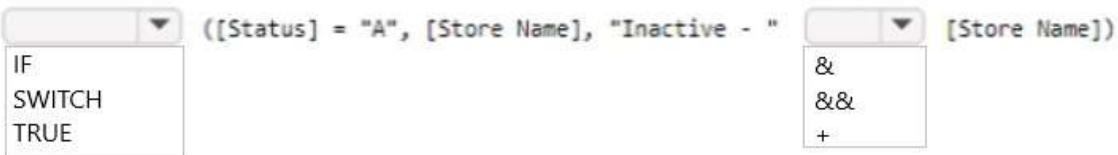
- Store Name
- Open Date
- Status
- State
- City

You need to create a calculated column named Active Store Name that meets the following requirements:

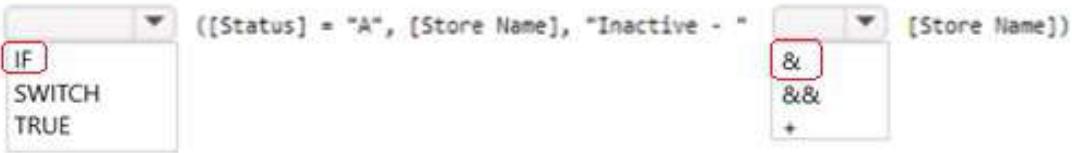
- When the value of the Status column is "A", the value in the Store Name column must be returned.
- When the value of the Status column is NOT "A", the value in the Store Name column that is prefixed with "Inactive - " must be returned.

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

NOTE: Each correct selection is worth one point.

Active Store Name = 

#### Answer:

Active Store Name = 

#### Explanation:

IF

&

To create the calculated column **Active Store Name** in Power BI, which returns the store name prefixed with "Inactive - " when the status is not "A", and the store name as-is when the status is "A", you can use the following DAX expression:

Active Store Name = IF( Stores[Status] = "A", Stores[Store Name], "Inactive - " & Stores[Store Name])

### **Explanation:**

The IF function checks if the Status column equals "A".

If true, it returns the value from the Store Name column.

If false, it concatenates "Inactive - " with the Store Name using the & operator.

This approach ensures that the **Active Store Name** column meets the specified requirements.

**CertyIQ**

### **Question: 112**

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

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

What should you do?

- A. Apply a transformation to extract the first 11 characters of the logged column.
- B. 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.
- C. Create a column by example that starts with 2018-12-31 and set the data type of the new column to Date.
- D. Apply a transformation to extract the last 11 characters of the Logged column and set the data type of the new column to Date.

### **Answer: C**

### **Explanation:**

Answer is C and not B because the conditional column would be year and not the logged date, also the data type should be date not whole number as specified in B.

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

### **Explanation:**

### **Understanding the Problem:**

The **Logged** column contains date and time data in the format 2018-12-31 at 08:59.

The goal is to use a **built-in date hierarchy** for analyzing the data, which requires the data type to be converted to Date.

### **Why Option C Works:**

**Column by Example** is a feature in Power Query that allows you to create a new column by typing a sample value, enabling Power Query to infer the transformation logic.

In this case, typing 2018-12-31 as an example allows Power Query to extract the date portion (YYYY-MM-DD) from the Logged column.

Once the date portion is extracted, you can change the data type of the new column to Date. This ensures it

can be used with the **built-in date hierarchy** for further analysis.

### Why Other Options Are Incorrect:

#### A. Apply a transformation to extract the first 11 characters of the Logged column:

Extracting the first 11 characters (e.g., 2018-12-31) will give you the date portion.

However, this option doesn't specify changing the data type to Date, which is necessary to enable the date hierarchy. If the data type isn't converted, the result will remain as text.

#### B. 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:

Creating a column that outputs just the year (2018) and setting it to a number format isn't sufficient for enabling a **built-in date hierarchy**, as the hierarchy requires a complete date (YYYY-MM-DD).

#### D. Apply a transformation to extract the last 11 characters of the Logged column and set the data type of the new column to Date:

Extracting the last 11 characters (e.g., at 08:59) will include invalid text (at) and time (08:59), making it impossible to convert the column directly to a valid Date type.

### Question: 113

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

From Power Query Editor, you profile the data shown in the following exhibit.

	IoT GUID	IoT DateTime	IoT ID	
	● Valid ● Error ● Empty	100% 0% 0%	● Valid ● Error ● Empty	100% 0% 0%
1	48196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:25	100001000	
2	49196321-38D9-EC11-BB3D-0022489A2...	21/05/2022 18:59:26	100001001	
3	0300C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001002	
4	0400C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001003	
5	0500C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001004	
6	0600C742-38D9-EC11-BB3D-0022489A2...	21/05/2022 19:00:21	100001005	

The IoT GUID and IoT ID columns are unique to each row in the query.

You need to analyze IoT events by the hour and day of the year. The solution must improve dataset performance.

Solution: You create a custom column that concatenates the IoT GUID column and the IoT ID column and then delete the IoT GUID and IoT ID columns.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

**Answer is NO.**

IoT GUID & IOT ID both are unique key columns. so we can delete any one among them. From performance point of view its good to delete text ID column i.e IOT GUID and keep IOT ID. concatenation is not required

Both are unique columns, but by concatenating them you will end up with a Unique Key with data type Text. This raises performance issues since Unique keys should be preferably integers for performance reasons. Also, since IoT GUID is not required might as well remove it.

**Question: 114**

CertyIQ

You have a Power BI model that contains a table named Employee. The table contains the following data.

Name	EmployeeID	ParentEmployeeID
David	100	100
Simon	101	100
Wenanta	102	100
Conrad	103	101
Priyish	104	103
Sunil	105	103
Pavel	106	102

Each employee has one manager as shown in the ParentEmployeeID column.

All reporting paths lead to the CEO at the top of the organizational hierarchy.

You need to create a calculated column that returns the count of levels from each employee to the CEO.

Which DAX expression should you use?

- A. PATHLENGTH(PATH(Employee[EmployeeID],Employee[ParentEmployeeID]))
- B. PATHITEM(PATH(Employee[EmployeeID],Employee[ParentEmployeeID]),1,INTEGER)
- C. PATHCONTAINS(PATH(Employee[EmployeeID],Employee[ParentEmployeeID]),1)
- D. PATH(Employee[EmployeeID],Employee[ParentEmployeeID])

**Answer: A**

**Explanation:**

The Answer is A because the question instructs that we count the different levels of each employee. The PathLength gives the result. For more information see the link <https://learn.microsoft.com/en>

us/dax/pathlength-function-dax

Although for CEO it returns 1 - so I personally would subtract 1 from this PATHLENGTH when creating the report, as I think numbers of levels from CEO to CEO is 0, for managers directly under CEO it is 1 etc

Answer D is wrong because it only returns the items related to the current row value and does not give the count.

### Question: 115

CertyIQ

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Replace the default visuals with AppSource visuals.
- B. Remove unused columns from tables in the data model.
- C. Change the imported dataset to DirectQuery
- D. Increase the number of times that the dataset is refreshed.

### Answer: B

#### Explanation:

B is correct. Removing unwanted columns from the data model is a good trick to improve the performance.

#### Understanding the Problem:

The Power BI report file is large (550 MB), and the dataset contains 12 million rows, which indicates potential inefficiencies in the data model.

The report is slow to load visuals, which could be caused by the size and complexity of the data model or the number of visuals used.

#### Why Option B Works:

**Removing unused columns** from the tables in the data model reduces the dataset's size and memory consumption.

A smaller dataset is easier to load and query, which improves report performance significantly.

Unused columns unnecessarily increase the memory footprint, processing time, and load time for visuals.

#### Why Other Options Are Incorrect:

#### A. Replace the default visuals with AppSource visuals:

AppSource visuals often have **lower performance** compared to default visuals because they can include additional overhead for rendering.

Replacing default visuals with AppSource visuals would likely **decrease performance**, not improve it.

#### C. Change the imported dataset to DirectQuery:

Switching to DirectQuery can improve performance in specific cases where only a small amount of data is queried at a time.

However, DirectQuery is dependent on the performance of the source system and can be slower for complex queries or large datasets.

Since this report involves a large dataset (12 million rows) and frequent interactions, DirectQuery could introduce **additional latency**.

#### D. Increase the number of times that the dataset is refreshed:

Dataset refresh frequency affects how up-to-date the data is but **does not impact the performance of the visuals** loading in the report.

Since the issue is about visuals being slow to load, increasing refresh frequency would not solve the problem.

#### Key Recommendations for Performance Improvement:

**Optimize the data model:** Remove unused columns, reduce column cardinality, and use efficient data types.

**Simplify visuals:** Limit the number of visuals on a single page and avoid overusing AppSource visuals.

**Aggregate data:** Use summary tables or aggregate data in the fact table to reduce the data size and complexity.

**Enable query reduction options:** Use options like disabling cross-highlighting to minimize the number of queries sent to the model.

By addressing the size and complexity of the data model through **Option B**, you can improve performance effectively without changing the dataset refresh strategy or visualization setup unnecessarily.

#### Question: 116

CertyIQ

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

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

What should you do?

- A. Change the data type of the Logged column to Date.
- B. Split the Logged column by using at as the delimiter.
- C. 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.
- D. Apply the Parse function from the Date transformations options to the Logged column.

**Answer: B**

**Explanation:**

**Understanding the Problem:**

The Logged column contains data in the format:

2018-12-31 at 08:59.

To use Power BI's built-in **date hierarchy**, the Logged column must be in a recognized **DateTime format** (e.g., 2018-12-31 08:59).

The presence of the word "at" prevents Power BI from directly converting this text to a DateTime format.

**Why Option B Works:**

Splitting the Logged column using **at** as the delimiter separates the date (2018-12-31) and time (08:59) into two columns.

Once the column is split:

The first part (date) can be set to the Date data type.

The second part (time) can be set to the Time data type if needed, or ignored if time is not relevant for analysis.

This approach ensures the date portion is clean and ready to be analyzed using Power BI's built-in **date hierarchy**.

**Why Other Options Are Incorrect:**

**A. Change the data type of the Logged column to Date:**

This would fail because the text "at" in the column makes the data incompatible with the Date data type. Power BI will throw an error unless the text is removed or transformed first.

**C. Add a conditional column that outputs 2018 if the Logged column starts with 2018 and set the data type to Whole Number:**

Extracting only the year (e.g., 2018) does not help in analyzing the data by the full date or using the built-in hierarchy for year, quarter, month, and day.

**D. Apply the Parse function from the Date transformations options to the Logged column:**

The **Parse** function is helpful when the text is in a recognizable datetime format. However, the presence of "at" in the Logged column makes it unrecognizable as a date. Power BI will fail to parse the column without first removing or splitting out the "at" portion.

**Key Steps for Option B in Power BI:**

Open Power BI Desktop and go to **Transform Data**.

Select the Logged column.

Use the **Split Column** option:

Choose **By Delimiter**.

Set the delimiter as **at**.

The column will split into two:

The first column will contain the date (2018-12-31).

The second column will contain the time (08:59).

Set the first column's data type to **Date**.

(Optional) If the time column is needed, set its data type to **Time** or keep it as is.

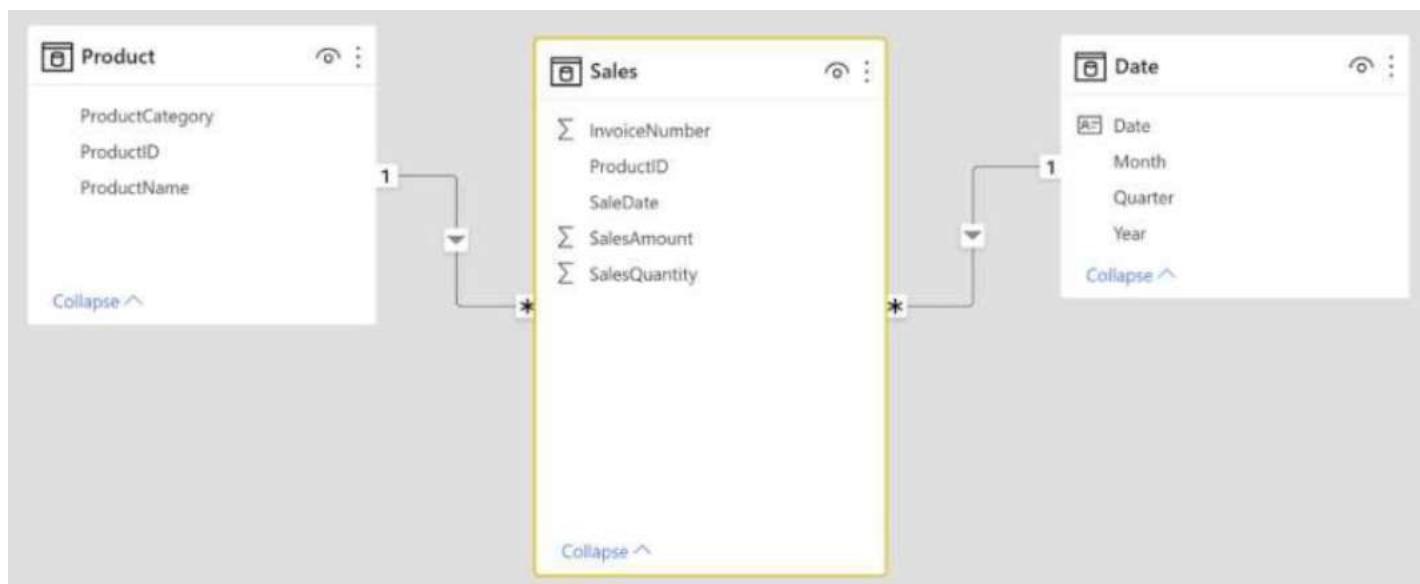
The first column will now support Power BI's built-in **date hierarchy**.

## Question: 117

CertyIQ

HOTSPOT

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



You need to create a measure to count the number of product categories that had products sold during a selected period.

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

NOTE: Each correct selection is worth one point.

Product Categories Sold =

CALCULATE (

DISTINCTCOUNT('Product'[ProductCategory]),  
COUNT('Product'[ProductCategory]),  
DISTINCTCOUNT('Sales'[ProductID]),  
SUM('Sales'[SalesQuantity]),

'Sales'  
'Product'  
'Product'[ProductCategory]  
'Date'

Answer:

Product Categories Sold =

CALCULATE (

DISTINCTCOUNT('Product'[ProductCategory]),  
COUNT('Product'[ProductCategory]),  
DISTINCTCOUNT('Sales'[ProductID]),  
SUM('Sales'[SalesQuantity]),

'Sales'  
'Product'  
'Product'[ProductCategory]  
'Date'

#### Explanation:

**Distinctcount('Product'[product category],**

**'sales'**

We have to count the distinct number of categories in the product table and then use the filter 'sales' so it will return only those product categories with products sold.

### Question: 118

CertyIQ

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A. Enable visual interactions.
- B. Change any DAX measures to use iterator functions.
- C. Implement row-level security (RLS).
- D. Remove unused columns from tables in the data model.

#### Answer: D

#### Explanation:

Remove unused columns from tables in the data model.

The question highlights that the Power BI report is slow to load, and the main challenges include:

**A large dataset:** The fact table contains **12 million rows**, contributing significantly to the size of the model (550 MB).

**High visual complexity:** The report uses **15 AppSource visuals** and **10 default visuals** on a single page, further taxing system resources during rendering.

## Why Option D is Correct:

### Reducing Model Size:

Removing **unused columns** reduces the overall size of the data model, which directly improves performance by reducing the amount of data Power BI needs to process.

Smaller model sizes result in faster data retrieval, rendering, and interactions within the report.

Power BI's **VertiPaq engine** performs better with optimized models.

### Focus on Optimization:

Unused columns increase storage and memory requirements but do not add value to the report.

By removing unnecessary columns, you improve the efficiency of compression and indexing, leading to faster loading and improved performance.

## Why Other Options Are Incorrect:

### A. Enable visual interactions:

Enabling or disabling visual interactions has minimal impact on overall report performance. While controlling interactions may improve user experience for complex visuals, it does not address the root cause of slow loading (large dataset size and visual complexity).

### B. Change any DAX measures to use iterator functions:

Using iterator functions (e.g., SUMX, AVERAGEX) instead of aggregate functions (e.g., SUM, AVERAGE) typically increases computational overhead. This would likely worsen performance rather than improve it.

### C. Implement row-level security (RLS):

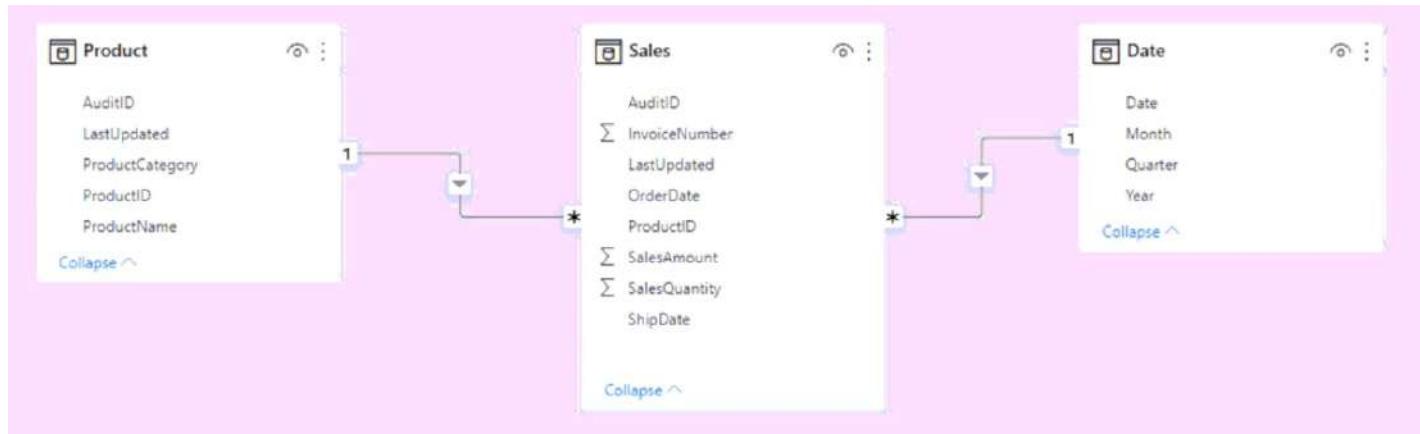
RLS limits data access based on user roles but does not directly improve performance. It could even increase processing time if filters are applied to a large dataset.

## Question: 119

CertyIQ

HOTSPOT

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



The Sales table has the following columns.

Name	Data type	Sample value
ProductID	Whole number	1
InvoiceNumber	Whole number	100005
OrderDate	Date	2022-05-09
ShipDate	Date	2022-05-12
SalesAmount	Decimal number	1500.75
SalesQuantity	Whole number	3
LastUpdated	Date/time	5/22/2022 11:45:30 AM
AuditID	Whole number	123212

The data model must support the following analysis:

- Total sales by product by month in which the order was placed
- Quantities sold by product by day on which the order was placed
- Number of sales transactions by quarter in which the order was placed

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Statements	Yes	No
Removing the LastUpdated column from the Sales table reduces the model size while still supporting the required analysis.	<input type="radio"/>	<input type="radio"/>
Removing the ProductID column from the Sales table reduces the model size while still supporting the required analysis.	<input type="radio"/>	<input type="radio"/>
Removing the ShipDate column from the Sales table reduces the model size while still supporting the required analysis.	<input type="radio"/>	<input type="radio"/>

#### Answer:

Statements	Yes	No
Removing the LastUpdated column from the Sales table reduces the model size while still supporting the required analysis.	<input checked="" type="radio"/>	<input type="radio"/>
Removing the ProductID column from the Sales table reduces the model size while still supporting the required analysis.	<input type="radio"/>	<input checked="" type="radio"/>
Removing the ShipDate column from the Sales table reduces the model size while still supporting the required analysis.	<input checked="" type="radio"/>	<input type="radio"/>

#### Explanation:

1. Removing the LastUpdated column from the Sales table reduces the model size while still supporting the required analysis.

#### Analysis:

The LastUpdated column is typically used for tracking record modifications and is not essential for sales

metrics analysis.

The required analysis focuses on sales metrics by **product** and **order dates**, so the absence of LastUpdated does not hinder the analysis.

**Conclusion: Yes**, removing this column reduces the model size and does not impact the required analysis.

## 2. Removing the ProductID column from the Sales table reduces the model size while still supporting the required analysis.

### Analysis:

The ProductID column is a key column that links the Sales table to the Product table, allowing analyses by **product**.

Without ProductID, it would be impossible to perform analyses such as total sales, quantity sold, or number of transactions **by product**, which is part of the requirement.

**Conclusion: No**, removing this column would break critical relationships and prevent the required analysis.

## 3. Removing the ShipDate column from the Sales table reduces the model size while still supporting the required analysis.

### Analysis:

The analysis requirements specify that metrics are based on **order dates**, not shipping dates.

Since ShipDate is not required for the specified analyses, it can be removed without affecting the ability to perform the required analysis.

**Conclusion: Yes**, removing this column reduces the model size and does not impact the required analysis.

## Question: 120

CertyIQ

You have a CSV file that contains user complaints. The file contains a column named Logged. Logged contains the date and time each complaint occurred. The data in Logged is in the following format: 2018-12-31 at 08:59.

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

What should you do?

- 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

### Explanation:

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

To analyze complaints by date and use a built-in date hierarchy, you need a column in the proper **Date** format. The steps in option A fulfill this requirement effectively:

### Create a column by example:

Power BI's "Add Column by Example" feature allows you to create a new column based on patterns in the existing data.

In this case, you provide an example of the desired output (2018-12-31), and Power BI automatically extracts and formats the date part from the Logged column (2018-12-31 at 08:59).

### Set the data type to Date:

The newly created column will contain only the date portion (2018-12-31).

Setting the data type to **Date** enables Power BI to recognize the column as a date, allowing the use of built-in date hierarchies (e.g., Year, Quarter, Month, Day).

Why not the other options?

### B. Create a column by example that starts with 2018-12-31:

This option omits the step of setting the data type to **Date**, which is required for using built-in date hierarchies.

### C. Apply a transformation to extract the last 11 characters of the Logged column:

Extracting the last 11 characters (at 08:59) does not yield the date portion. This would result in incorrect or incomplete data.

### D. Add a conditional column that outputs 2018 if the Logged column starts with 2018 and set the data type to Whole Number:

Creating a column with the year (2018) alone does not allow for detailed analysis by full date, nor does it support built-in date hierarchies.

## Question: 121

CertyIQ

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.

Which expression should you use?

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

**Answer: D**

**Explanation:**

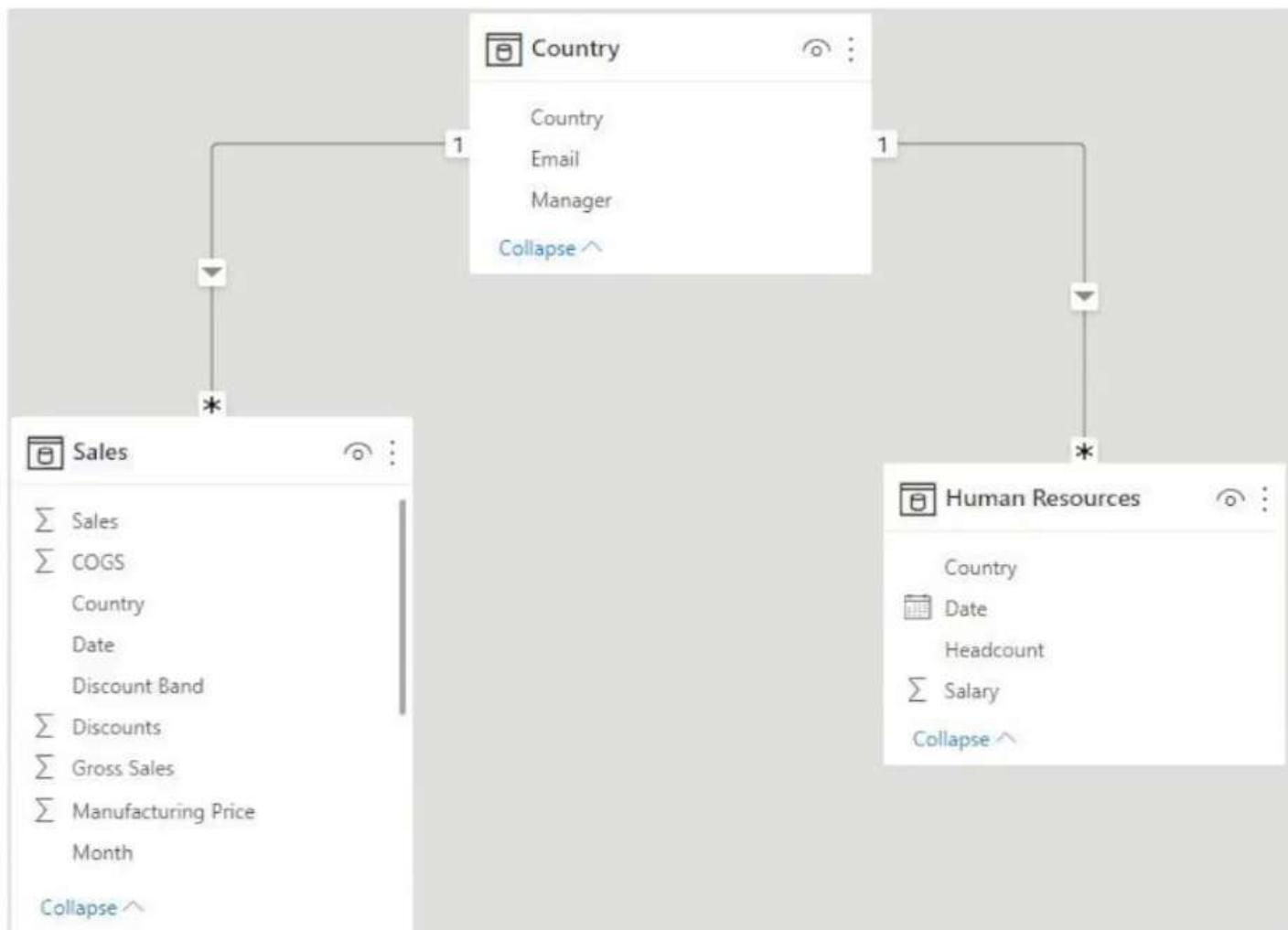
To implement dynamic row-level security (RLS) on the Employees table, a table filter must be created. The table filter should be based on the user's email address or user principal name (UPN), as these are unique identifiers for each user. The DAX expression [Email Address] = USERPRINCIPALNAME() will filter the Employees table to only show rows where the Email Address column matches the UPN of the current user. This expression works in both Power BI Desktop and the Power BI service, and will ensure that each user only sees their own employee data.

**Question: 122**

CertyIQ

DRAG DROP

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.

NOTE: Each correct selection is worth one point.

#### Table Filter DAX Expression

[Country]= "USA"

[Email]= userprincipalname()

[Manager]= "CFO"

False()

True()

#### Answer Area

Human Resources:

Country:

#### Answer:

#### Table Filter DAX Expression

[Country]= "USA"

[Email]= userprincipalname()

[Manager]= "CFO"

False()

True()

#### Answer Area

Human Resources:

False()

Country:

[Email]= userprincipalname()

**Explanation:**

Human Resources > False ()

Country > [Email] = USERPRINCIPALNAME ()

**Explanation:**

I would create 2 RLS:

1st with Human Resources > False ()

Add CFO user

- The CFO must be prevented from seeing the data in the Human Resources table.
- The CFO must see the sales data of all countries.

2nd with Country > [Email] = USERPRINCIPALNAME ()

Add manager users:

- Each manager must see only the data in the Sales and Human Resources tables for their own country.

**CertyIQ****Question: 123**

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.

- 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: AB****Explanation:**

When Power Query attempts to reload the data, it follows the steps defined in the query. If it cannot locate a column referenced in the query, it generates the error:

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

- A. The column was removed from the source file

If the Category column is deleted from the Excel source file, Power Query cannot find it, resulting in the error. Removing a column breaks the query steps that depend on that column.

**Correct**

**B. The column was renamed in the source file**

If the column Category is renamed in the source file, Power Query will still search for the original name specified in the query steps.

Since it cannot find the renamed column, the error occurs.

**Correct**

**C. The file is no longer in the specified location**

If the source file is moved or deleted, you would encounter a "**File not found**" error instead of a missing column error.

**Incorrect**

**D. The data type of the column was changed**

Changing the data type of the Category column does not affect Power Query's ability to locate the column. It might result in a **data type mismatch error**, but it will not lead to the column not being found.

**Incorrect**

**Question: 124**

**CertyIQ**

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 orders.

Which formula should you use?

- A.Count('Sales'[Order ID])
- B.CountA('Sales' [Order ID])
- C.CountRows('Sales')
- D.DistinctCount('Sales' [Order ID])

**Answer: D**

**Explanation:**

Orders are uniquely identified by using the order ID and can have multiple order lines" - I think the important statement is "and can have multiple order lines" which means that the order ID can appear more than once in the table if the order contains more than one products.

### Question: 125

CertyIQ

HOTSPOT

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
GENERATEALL
GENERATESERIES

▼
( 100, 1, 200 )
( -100, 100, 1 )
( -1, -100, 100 )

Answer:

### Answer Area

Numbers =

▼
GENERATE
GENERATEALL
GENERATESERIES

▼
( 100, 1, 200 )
( -100, 100, 1 )
( -1, -100, 100 )

Explanation:

To create a calculated table named Numbers in Power BI Desktop that contains all the integers from -100 to 100, you can use the following DAX calculation: Numbers = **GENERATESERIES(-100, 100, 1)**

The GENERATESERIES function generates a table of values that starts at the first argument (-100), ends at the second argument (100), and increments by the third argument (1) in this case. The resulting table will contain all the integers from -100 to 100 inclusive. The calculated table is named "Numbers" and is created by assigning the output of the GENERATESERIES function to it using the "=" operator. No confusion, and no need to discuss further

## Question: 126

CertyIQ

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.

Which expression should you use?

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

### Answer: D

#### Explanation:

The correct answer is D. [Email Address] = USERPRINCIPALNAME(). The expression checks the email address of the currently logged-in user against the email address in the Employees table, which should be used as the identifier for each employee. This will ensure that each user can only see their own employee data. The other options may not work in all cases, as the username and user principal name may not always match the email address used as the identifier.

## Question: 127

CertyIQ

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, and Calendar Month.

Which DAX function should you include in the table definition?

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

### Answer: C

### Explanation:

"SUMMARIZE SUMMARIZE:" Creates a summary of the input table grouped by the specified columns.  
"ADDCOLUMNS:" Returns a table with new columns specified by the DAX expressions." Based on this, using SUMMARIZE will give us the unique combination we want and don't need to use DAX expressions to create the calculated table.

### Question: 128

CertyIQ

HOTSPOT

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 by using the Date columns.

You need to create a calculated table that will contain the following:

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

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

SalesSummary=

ROLLUP  
 SELECTCOLUMNS  
 SUMMARIZE

( Sales,  Date[Date]  
 Date[Year]  
 Sales[Date] , "Sales", SUM (Sales[Sale] ) )

### Answer:

## Answer Area

SalesSummary=

( Sales,	Date[Date]	, "Sales", SUM (Sales[Sale] ) )
ROLLUP	Date[Year]	
SELECTCOLUMNS	Sales[Date]	
<b>SUMMARIZE</b>		

### 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.

The correct DAX expression to create the desired calculated table is:

```
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.

This approach aligns with the requirements: a row for each year and a column with the total sales per year.

## Question: 129

CertyIQ

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 <sup>B</sup> <sub>C</sub> Month	1 <sup>2</sup> <sub>3</sub> 2020	1 <sup>2</sup> <sub>3</sub> 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**

**Explanation:**

C is correct assuming we are selecting the "2020" and "2021" columns

**Question: 130**

HOTSPOT

**CertyIQ**

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? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Last Inventory Count =

AllSelected  
Calculate  
CalculateTable

SUM ( 'Inventory'[QuantityAvailable] ),

( 'Date'[Date] )

LastDate  
LastNonBlankValue  
Max

**Answer:**

## Answer Area

Last Inventory Count =

The screenshot shows the Power BI DAX visual editor with a formula bar. The formula is:

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

A dropdown menu is open at the end of the second argument, showing three options: "LastDate", "LastNonBlankValue", and "Max". The "LastDate" option is highlighted with a red box.

**Explanation:**

**Calculate**

**Last Date**

The problem requires calculating the last inventory count for a product in a given month, year, or date using DAX. Let's analyze the measure in the given image:

**Measure: Last Inventory Count**

**CALCULATE** is the correct function for modifying the filter context.

The **SUM** function aggregates the QuantityAvailable column in the Inventory table.

**LastDate('Date'[Date])** ensures that the measure evaluates the inventory count for the last date in the context of the filter (month, year, or date).

**Explanation:**

**CALCULATE Function:**

**Purpose:** Used to modify the filter context of a calculation.

In this case, it adjusts the calculation to consider only the last date in the filtered time period.

**LastDate('Date'[Date]):**

**Purpose:** Returns the last date within the filter context.

In this case, it ensures the calculation retrieves the inventory count for the last date of the time period in the current filter.

**SUM(Inventory[QuantityAvailable]):**

**Purpose:** Sums the inventory quantity for the date identified by LastDate.

Complete DAX Measure:

Last Inventory Count = CALCULATE( SUM(Inventory[QuantityAvailable]), LastDate('Date'[Date]))

Why this is correct:

**Requirement:** The measure should return the last recorded inventory value for a product in a given time period (year, month, or date).

**Logic:** CALCULATE modifies the filter context to focus on the last date, and SUM aggregates the inventory quantity for that specific date.

### Question: 131

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a Power BI report that imports a date table and a sales table from an Azure SQL database data source. The sales table has the following date foreign keys:

- Due Date
- Order Date
- Delivery Date

You need to support the analysis of sales over time based on all three dates at the same time.

Solution: From the Fields pane, you rename the date table as Due Date. You use a DAX expression to create Order Date and Delivery Date as calculated tables. You create active relationships between the sales table and each date table.

Does this meet the goal?

- A.Yes
- B.No

**Answer: A**

**Explanation:**

yes is a correct answer.

The solution works because creating separate calculated tables for **Order Date** and **Delivery Date**, along with active relationships for all three date tables (Due Date, Order Date, Delivery Date), ensures simultaneous analysis of sales over time without requiring complex DAX functions.

### Question: 132

CertyIQ

## HOTSPOT

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.

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

### 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:

#### 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]))

### Explanation:

Count Rows ('Headcount')

This part counts how many rows are in the 'Headcount' table. Each row likely represents an individual employee, so this effectively gives us the total number of employees (i.e., the headcount).

Last Date ('Date'[Date])

This is a filter argument passed into the CALCULATE function. It returns the latest date in the current filter context from the 'Date'[Date] column.

When used inside CALCULATE, it restricts the calculation to only that one date — the last one. That way, we get the headcount as of the most recent date in the dataset.

**Question: 133****CertyIQ**

HOTSPOT

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.

What should you do to create the Sales Fact query, and for which query should you clear Enable load? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area****To create Sales Fact:**

- Duplicate the All Sales query.
- Duplicate the Customer Dimension query.
- Reference the All Sales query.
- Reference the Customer Dimension query.

**Clear Enable data load for:**

- All Sales
- Customer Dimension
- Product Dimension
- Sales Fact

**Answer:**

## Answer Area

To create Sales Fact:

Duplicate the All Sales query.  
Duplicate the Customer Dimension query.  
**Reference the All Sales query.**  
Reference the Customer Dimension query.

Clear Enable data load for:

All Sales  
Customer Dimension  
Product Dimension  
Sales Fact

### Explanation:

Reference the All Sales query.

All Sales.

Reference is the most common way to replicate original query.

Clear "enable load" to "All Sales" cause the data of this query is now loaded to other table. It is not necessary to load it to Report view anymore.

We are referencing All Sales for all three tables, and then we are clearing Enable load for All Sales to reduce the data model and increase performance. Referencing will reduce maintenance because the three tables will be derived from the original data and we can keep the transformations to the source data without having to modify three queries.

### Question: 134

CertyIQ

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 by using the Date columns.

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**

**Explanation:**

DATEADD is correct. PARALLELPERIOD also calculate one quarter before, but the outcome is the total sales of three months of previous quarter not only one day or one month of previous quarter.

### Question: 135

CertyIQ

You have a Microsoft Power BI report. The size of PBIX file is 550 MB. The report is accessed by using an App workspace in shared capacity of powerbi.com.

The report uses an imported dataset that contains one fact table. The fact table contains 12 million rows. The dataset is scheduled to refresh twice a day at 08:00 and 17:00.

The report is a single page that contains 15 AppSource visuals and 10 default visuals.

Users say that the report is slow to load the visuals when they access and interact with the report.

You need to recommend a solution to improve the performance of the report.

What should you recommend?

- A.Change any DAX measures to use iterator functions.
- B.Implement row-level security (RLS).
- C.Replace the default visuals with AppSource visuals.
- D.Split the visuals onto multiple pages.

**Answer: D**

**Explanation:**

Correct answer is D:Split the visuals onto multiple pages.

**Issue with Performance:**

The report contains **15 AppSource visuals** and **10 default visuals** on a **single page**. This increases the rendering and loading time because Power BI needs to load all visuals simultaneously when the page is opened.

AppSource visuals, in particular, can be slower because they often require more resources compared to default visuals.

### **Why splitting visuals onto multiple pages improves performance:**

By splitting the visuals across multiple pages, Power BI will only load and render the visuals for the currently viewed page. This reduces the memory and processing demand when interacting with the report.

### **Why other options are not correct:**

**A. Change any DAX measures to use iterator functions:** Iterator functions (SUMX, AVERAGEX, etc.) are typically **slower** than column-based aggregations like SUM or AVERAGE. This could further degrade performance.

**B. Implement row-level security (RLS):** RLS is designed to restrict data access based on user roles, but it does not improve the performance of loading visuals.

**C. Replace the default visuals with AppSource visuals:** AppSource visuals are often more resource-intensive than default visuals, so this would likely worsen performance.

**CertyIQ**

### **Question: 136**

You are reviewing a Power BI data model.

You have a calculated table that has the following definition.

ProductList = INTERSECT ( ProductsGroupA, ProductsGroupB )

You need to identify the results of the DAX expression.

Which rows will be returned in ProductList?

- 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: C**

#### **Explanation:**

all the rows in ProductsGroupA that have a matching row in ProductsGroupB.

The DAX function **INTERSECT** returns the common rows between two tables based on their matching values.

#### **How INTERSECT Works:**

It compares two tables (in this case, ProductsGroupA and ProductsGroupB).

Only rows that exist in **both tables** are returned in the result.

#### **Key Characteristics:**

It performs an **inner join-like operation** between the two tables.

The result includes rows that are identical in both tables (based on column values).

#### Why the Answer is C:

The calculated table ProductList will include all rows from ProductsGroupA **where there is a matching row in ProductsGroupB**.

#### Why Other Options Are Incorrect:

##### A. All the rows in ProductsGroupB that have a matching row in ProductsGroupA:

This is close, but it implies the result is based only on ProductsGroupB. The result actually includes rows that match in both tables, regardless of the source table.

##### B. All the rows in both tables:

This describes a **UNION**, not an **INTERSECT**. **INTERSECT** only includes rows that exist in both tables.

##### D. All the rows in ProductsGroupA that have no matching row in ProductsGroupB:

This describes an **EXCEPT** operation, not an **INTERSECT**.

## Question: 137

CertyIQ

You have a Power BI data model that contains two tables named Sales and Date. The Sales table contains three measures named Order Quantity, Product Cost, and Sales Amount.

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

	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

In which section of the Fields well should you place the measures?

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

#### Answer: C

#### Explanation:

The correct answer is C - Values.

Firstly, this type of visualization is a MATRIX.

If you do a simple test in PowerBI Desktop, you can see that in the "Rows" section, we can't add measures!

Most likely, the names of the measures in the rows of the matrix appear because the measures were put in

"fields parameteres" that generated a Calculated Table, and the actual values of the measures appear by adding the measures (not from the Calculated Table) in the "Values" section.

### Question: 138

CertyIQ

HOTSPOT

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

The screenshot shows the Power BI interface with the 'Visualizations' and 'Data' panes open.

**Visualizations pane:**

- Build visual: Includes icons for Grid, Hand, and Magnifying glass.
- Visualizations gallery: A grid of icons representing various chart types like bar charts, line charts, pie charts, etc.
- X-axis: Set to 'Year'.
- Y-axis: Set to 'Sum of Sales Amount' and 'Sum of Product Cost'.
- Legend: 'Add data fields here'.
- Small multiples: 'Add data fields here'.
- Toolips: 'Add data fields here'.

**Data pane:**

- Search bar: 'Search'.
- Table structure: 'Date', 'Headcount', 'Sales'.
- Table expansion: 'SalesDetails' (indicated by a green dot).
- Fields listed under SalesDetails:
  - CustomerKey
  - DueDateKey
  - Extended Amount
  - $\sum$  Order Quantity
  - OrderDateKey
  - $\sum$  Product Cost
  - Product Standard Cost
  - ProductKey
  - ResellerKey
  - $\sum$  Sales Amount
  - SalesDate
  - SalesOrderLineKey
  - SalesTerritoryKey
  - ShipDateKey
  - Unit Price
  - Unit Price Discount Pct

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

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:

## 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	▼

Explanation:

**To replace all the implicit DAX measures used in the visual:**

**Correct Answer: Two explicit measures**

Implicit measures (e.g., sum, average) are created automatically when fields are added to visuals. To replace these, explicit measures must be created manually using DAX. If the visual uses two implicit measures, two explicit measures are required to replace them.

**To change how the Product Cost field is aggregated in additional visuals:**

**Correct Answer: Summarization setting**

The summarization setting controls how numeric fields are aggregated (e.g., sum, average, count). Adjusting this setting changes the default aggregation for the field across all visuals.

- Employee ID
- First Name
- Last Name
- Department
- Salary

Each employee is uniquely identified by using Employee ID.

You need to create a DAX measure that will calculate the average salary of all the employees in the sales department.

Which DAX expression should you use?

- 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: C**

**Explanation:**

CALCULATE(AVERAGE('Employees'[Salary]), 'Employees'[Department] = "Sales").

**A. DISTINCTCOUNT('Employees'[Salary])**

This counts distinct salary values, not the average, so it doesn't meet the requirement.

**B. CALCULATE(DISTINCTCOUNT('Employees'[Salary]), 'Employees'[Department] = "Sales")**

This counts distinct salary values within the Sales department, but the requirement is to calculate the average, not the count. Therefore, it's incorrect.

**C. CALCULATE(AVERAGE('Employees'[Salary]), 'Employees'[Department] = "Sales")**

**Correct answer.**

This uses CALCULATE to filter the Employees table to only include those in the Sales department, and AVERAGE computes the average salary of the filtered employees.

**D. AVERAGE('Employees'[Salary])**

This calculates the average salary for all employees, not just those in the Sales department, so it doesn't meet the requirement.

Why **C** is the Correct Answer:

**CALCULATE** is needed to modify the filter context of the calculation, limiting it to employees in the Sales department ('Employees'[Department] = "Sales").

**AVERAGE** calculates the average salary for the filtered dataset.

In summary, **C** is the correct solution because it filters the data for the Sales department and calculates the average salary, which is exactly what the question asks for.

**Question: 140**

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

- Tax Amount
- Sales Order ID
- Freight Amount
- Subtotal Amount
- Total Item Quantity

The Sales Order ID column uniquely identifies each sales order. The Subtotal Amount and Total Item Quantity columns are always populated, but the Tax Amount and Freight Amount columns are sometimes null when an order has 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

How should you modify the query?

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

**Answer: D****Explanation:**

In the Freight Amount column, replace the null values with 0.

To calculate the required metrics, we need to handle **null values** appropriately, especially for the Freight Amount column, as it can affect the average and other calculations.

Required Metrics:

**Average item quantity per order:**

This requires all rows to be included, even if Tax Amount or Freight Amount is null. The Total Item Quantity column is always populated, so no changes are needed here for this metric.

**Average freight amount per order:**

To calculate the average correctly, you need to ensure that any missing Freight Amount is considered as 0 instead of being excluded.

**Replacing null values in Freight Amount with 0** allows this metric to reflect the intended values and ensures accurate averaging, as nulls would otherwise be ignored in the calculation.

**Maximum item quantity per order:**

The Total Item Quantity column is always populated, so we don't need to worry about null values in this column. This metric is not affected by the handling of null values in Freight Amount or Tax Amount.

Why Other Options Are Incorrect:

**A. In the Total Item Quantity column, replace the null values with 0:**

The Total Item Quantity column is always populated, so this step is unnecessary and wouldn't address any issue.

**B. In the Tax Amount column, remove rows that contain null values:**

The Tax Amount column is not required for the requested metrics (average item quantity per order, average freight amount per order, and maximum item quantity per order). Removing rows with null Tax Amount values is unnecessary for these calculations.

**C. In the Freight Amount column, remove rows that contain null values:**

Removing rows with null Freight Amount values would exclude orders with no freight amount, which is incorrect. Instead, **replacing null values with 0** ensures all orders are considered in the calculation of the average freight amount.

**Question: 141**

CertyIQ

DRAG DROP

-

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.

NOTE: Each correct selection is worth one point.

**Join types**

- Inner
- Left anti
- Left outer
- Right anti
- Right outer

**Answer Area**

Join Customers with Address:

Join Address with Country:

**Answer:**

## Join types

- Inner
- Left anti
- Left outer
- Right anti
- Right outer

## Answer Area

Join Customers with Address:

Left outer

Join Address with Country:

Inner

### Explanation:

1. Join Customers with Address: **Left Outer**.

A Left Outer Join includes all records from the "Customers" table and matches records from the "Address" table. If no match is found, the result still includes the customer but with NULL values for the unmatched address fields.

This is suitable when you want to ensure that all customers are included in the result, even if they don't have an associated address.

2. Join Address with Country: **Inner**.

An Inner Join includes only the records where there is a match between the "Address" and "Country" tables.

This is suitable when you want to show only those addresses that have a valid and matching country.

## Question: 142

CertyIQ

You have a Power BI semantic model that contains four queries named Query 1, Query2, Query3, and Query4.

Query1 loads customer data into the model and is referenced by the other three queries.

You discover that data refresh for the model is slow.

You need to improve the data refresh time. The solution must minimize costs.

What should you do?

- 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: A

### Explanation:

Run the Table.buffer function in Query1.

#### A. Table.Buffer in Query1

The **Table.Buffer** function caches the data from Query1 into memory, preventing repeated loads when referenced by other queries. This improves refresh times and **does not increase costs**.

**Correct choice.**

#### B. Duplicate Query1 to all other queries

Duplicating Query1 increases data load and slows down refresh times by processing the same data multiple times.

**Incorrect.**

#### C. Reconfigure Query1 as a dataflow entity

Converting Query1 to a dataflow adds complexity and could increase costs. This is not the best option for improving refresh time while minimizing costs.

**Incorrect.**

#### D. Increase Capacity settings in Power BI Admin portal

While scaling capacity improves performance, it increases costs, which goes against the goal of cost minimization.

**Incorrect.**

**Final Answer: A**

Using the **Table.Buffer** function in **Query1** optimizes refresh performance **without incurring additional costs**.

### Question: 143

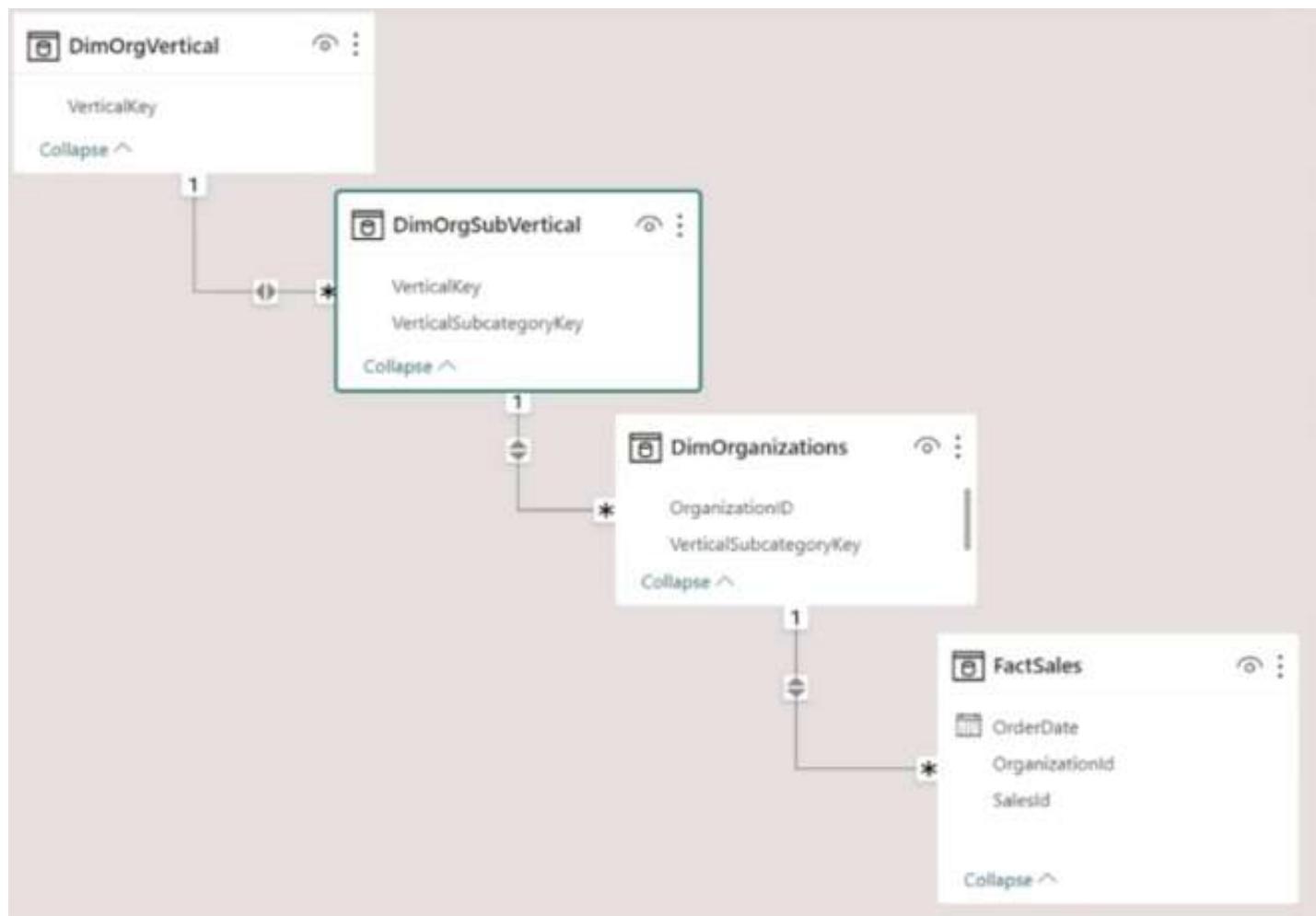
CertyIQ

HOTSPOT

-

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.

NOTE: Each correct selection is worth one point.

### 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:**

## Answer Area

The tables represent a [answer choice] dimension.

The screenshot shows a Power BI Data Model view. At the top, there is a dropdown menu containing four items: "degenerate", "junk", "role-playing", and "snowflake". The item "snowflake" is highlighted with a black rectangle. Below this is another dropdown menu containing three items: "DimOrganizations", "DimOrgSubVertical", and "FactSales". The item "DimOrgSubVertical" is also highlighted with a black rectangle.

degenerate
junk
role-playing
<b>snowflake</b>

DimOrganizations
<b>DimOrgSubVertical</b>
FactSales

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

### Explanation:

It is a snowflakeschema and DimOrgSubVertical is the only table that supports a hierarchy model for DimOrgVertical

A degenerate dimension refers to a dimension key in a fact table that does not have its own dimension table.

Junk Dimension is a dimension table in a data warehouse that combines several low cardinality flags and indicators to improve the efficiency of queries.

A role-playing dimension refers to a single dimension table that is utilized multiple times within a fact table, each time representing a different logical role or perspective.

The one in the exhibit is a SNOWFLAKE SCHEMA (not dimension) as the fact table is related to dim tables which can be linked to other dim tables.

DimOrgSubVertical is the only table supporting hierarchy model for DimOrgVertical (DimOrganization could support hierarchy for DimSubVrtical)

## Question: 144

CertyIQ

HOTSPOT

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.

NOTE: Each correct selection is worth one point.

## 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:**

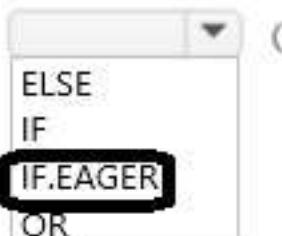
## Answer Area

Sales Qualification =

IF(

'Opportunity'[Qualification] < 0.5,

"Low",



'Opportunity'[Qualification] > 0.7,

HIGH

LOW

MEDIUM

HIGH

LOW

MEDIUM

)

)

### Explanation:

The IF.EAGER,HIGH, MEDIUM are the correct answer:

In Power BI's DAX language, the primary difference between the "IF" and "IF.EAGER" functions lies in their evaluation strategy: "IF" only evaluates the expression corresponding to the true or false condition based on the logical test, while "IF.EAGER" always evaluates both expressions regardless of the condition, which can sometimes lead to performance improvements in specific scenarios where both branches need to be calculated regardless of the outcome.

See this link:<https://learn.microsoft.com/en-us/dax/if-eager-function-dax>

## Question: 145

CertyIQ

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?

- A.DirectQuery mode
- B.import mode
- C.LiveConnect mode
- D.push mode

**Answer: A**

**Explanation:**

Live connection and DirectQuery comparison <https://learn.microsoft.com/en-us/power-bi/connect-data/service-live-connect-dq-datasets> Live connection is a method that lets you build a report in Power BI Desktop without having to build a semantic model for it. The semantic model can dynamically request data from a data source it's connected to using a method called DirectQuery. When using DirectQuery, your report uses Data Analysis Expression (DAX) queries to get data. After the semantic model receives the report's DAX query, it generates another set of queries that are run on your data source, to get the required data. From this I am concluding use DirectQuery.

**Question: 146**

**CertyIQ**

HOTSPOT

-

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.

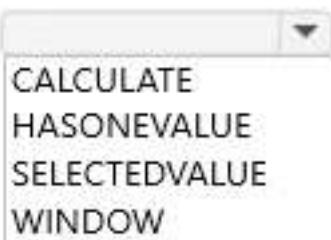
How should you complete the DAX formula? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Item Quantity Rank =

IF(



( 'Item'[Item]),

CALCULATE  
HASONEVALUE  
SELECTEDVALUE  
WINDOW

RANKX(

ALL('Item'[Item]),

[Quantity],

,

,



)

)

**Answer:**

## Answer Area

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

### Explanation:

HASONEVALUE.

DENSE.

HASONEVALUE ('Item'[Item]) check if 'item' is filtered to a single value. if not, it returns blank by default.

Rank method : DENSE ensure that ranks are not skipped when there are ties.

## Question: 147

CertyIQ

HOTSPOT

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.

NOTE: Each correct answer is worth one point.

#### 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  
    (#"3b73bb0e-9677-425e-8296-0f2a756be816", "Location",  
        {"DisplayName"}, {"Location.DisplayName"}),  
    #"Removed" = Table.RemoveColumns  
    (#"Expanded Location", ("CountryOrRegion")),  
        Table.ReorderColumns  
        Table.RemoveRows  
in  
    #"Removed"
```

#### Answer:

##### 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  
    (#"3b73bb0e-9677-425e-8296-0f2a756be816", "Location",  
        Table.ExpandRecordColumn  
        Table.DuplicateColumn  
        {"DisplayName"}, {"Location.DisplayName"}),  
    #"Removed" = Table.RemoveColumns  
    (#"Expanded Location", ("CountryOrRegion")),  
        Table.ReorderColumns  
        Table.RemoveRows  
in  
    #"Removed"
```

#### Explanation:

##### **Table.ExpandRecordColumn.**

Expands the "Location" column, which contains record values, into a new column called "Location.DisplayName".

This transformation flattens complex nested records so you can access their fields directly in table form.

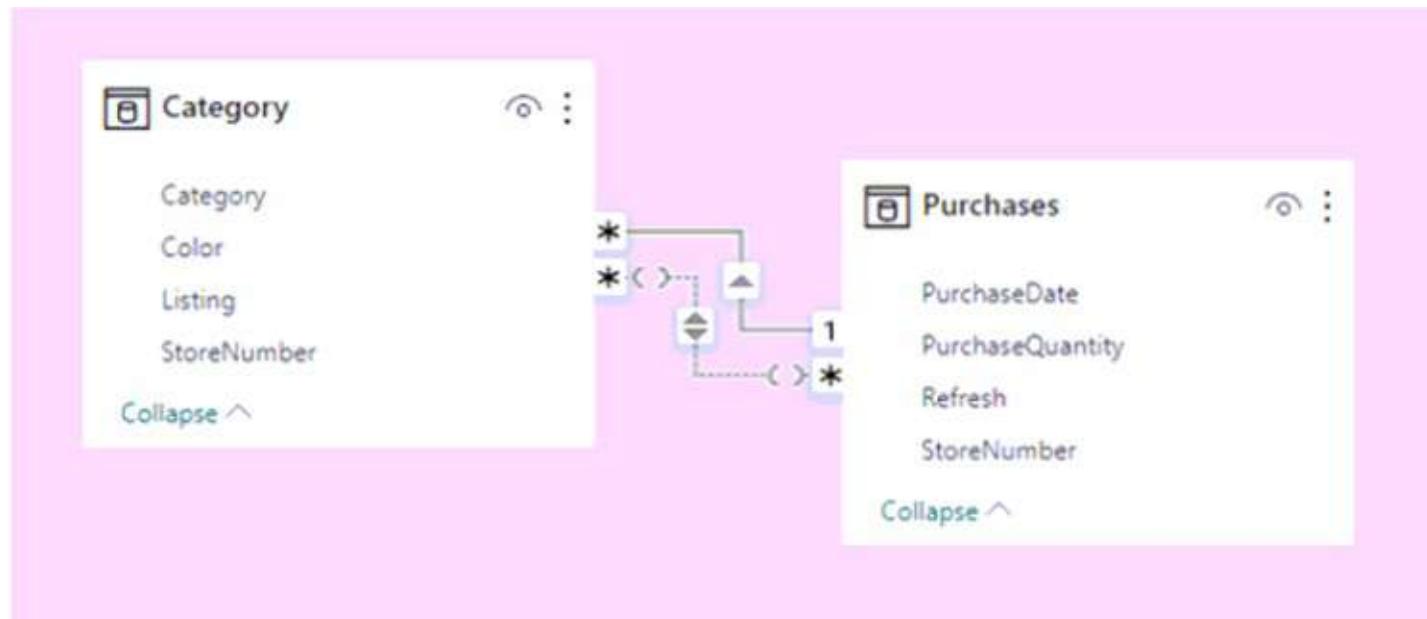
##### **Table.RemoveColumns.**

Removes the "CountryOrRegion" column from the dataset.

This is common when cleaning up data by eliminating unnecessary or redundant fields.

## HOTSPOT

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:

## 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

## Explanation:

1: Single

2. Delete the many to one. Per MS Learn, you should first make the other relationship inactive. Since making it inactive is not an option, we must delete:

"To ensure there's a default relationship, Power BI Desktop allows only a single active relationship between two tables at a given time. Therefore, you must first set the current relationship as inactive and then set the relationship you want to be active."

<https://learn.microsoft.com/en-us/power-bi/transform-model/desktop-create-and-manage-relationships>

### Question: 149

CertyIQ

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? Each correct answer present part of the solution.

NOTE: Each correct answer is worth one point.

- A.Top Operations
- B.DAX query
- C.Server requests
- D.Dependencies
- E.Visual display

### Answer: BE

#### Explanation:

B.DAX query.

E.Visual display.

Dax and Visual Display from <https://learn.microsoft.com/en-us/power-bi/create-reports/desktop-performance-analyzer>. Excerpt from the link: Each visual's log information includes the time spent (duration) to complete the following categories of tasks:

DAX query - If a DAX query was required, this is the time between the visual sending the query and Analysis Services returning the results.

Visual display - This is the time required for the visual to draw on the screen, including the time required to retrieve any web images or geocoding.

Other - This is the time required by the visual for preparing queries, waiting for other visuals to complete, or performing other background processing.

Evaluated parameters (preview) - This is the time spent evaluating the field parameters within a visual. Learn more about field parameters (preview).

### Question: 150

CertyIQ

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

### Answer: A

#### Explanation:

Correct answer is A:Group2.

A. Group 2. Per Microsoft Learn, here's why:

"You can use the following groups to set up row-level security:

Distribution Group

Mail-enabled Group

Microsoft Entra Security Group

Note that Microsoft 365 groups aren't supported and can't be added to any roles."

<https://learn.microsoft.com/en-us/fabric/security/service-admin-row-level-security>

Because of this, it should be Group 2.

**Question: 151**

CertyIQ

You have a Power BI model that contains two tables named Sales and Date. The Sales table relates to the Date table by 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.

Which DAX expression should you use?

- 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: B****Explanation:**

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

DATESBETWEEN creates a continuous range of dates from the selected date back 30 days. So option B is more suitable for calculating a rolling 31-day total because it correctly defines the date range needed for the calculation.

The DATESBETWEEN function defines a range of dates:

From MAX(Date[Date]) - 30 (30 days before the selected date)

To MAX(Date[Date]) (the selected date).

This correctly captures all dates in the 31-day rolling window.

why not Dateadd:

The DATEADD function shifts the entire date context backward by 30 days.

This means the calculation will consider only the values on dates exactly 30 days ago and not the entire rolling range of 31 days.

**Question: 152**

CertyIQ

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

- 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: B**

**Explanation:**

Correct answer is B:Source2 only.

You need a gateway to connect to data sources that are located in a private network, such as an Azure Virtual Network (Azure VNet). A virtual network, or VNet, is a logically isolated segment of a network that insulates traffic from the public internet. A VNet provides enhanced network security.

<https://learn.microsoft.com/en-us/power-bi/guidance/powerbi-implementation-planning-data-gateways>

Excel file you can access via SharePoint connector and a public site is well... a public site...

An Azure SQL database inside a virtual network is not publicly accessible by default. It's protected by the VNet's network security rules. Therefore, you must use a data gateway to allow Power BI to connect to it. The gateway acts as a bridge between the Power BI service and the VNet.

Remember, an on-premises data gateway is required when Power BI needs to access data sources that are not directly accessible over the internet.

**Question: 153**

**CertyIQ**

HOTSPOT

-

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.

NOTE: Each correct selection is worth one point.

#### Answer Area

Optimize:

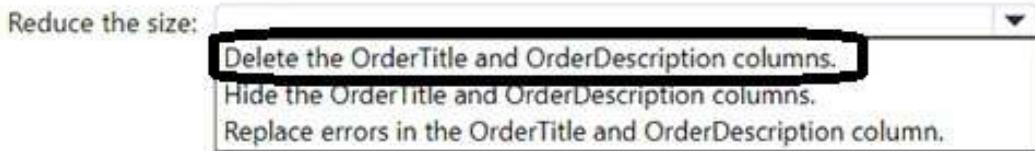
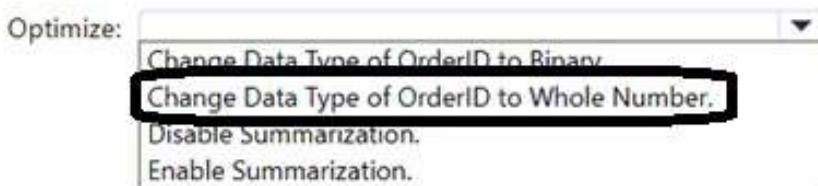
- Change Data Type of OrderID to Binary.  
 Change Data Type of OrderID to Whole Number.  
 Disable Summarization.  
 Enable Summarization.

Reduce the size:

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

Answer:

## Answer Area



### Explanation:

- 1) Changing data type from text to whole number. Explanation: Queries using numerical data types can execute faster than those using text data.
- 2) Delete the OrderTitle and OrderDescription columns. Explanation: Directly reduces the model size without affecting analysis.

<https://learn.microsoft.com/en-us/power-bi/guidance/import-modeling-data-reduction>

## Question: 154

CertyIQ

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? Each correct answer presents part of the solution.

NOTE: Each correct answer is worth one point.

- 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: AC

### Explanation:

- A. Apply Group By and Summarize Techniques: Aggregating data reduces its size and complexity, improving model performance.
- C. Remove Unnecessary Columns and Rows: Eliminating unused data minimizes the memory and processing power needed.

### Why Other Answers Are Incorrect:

- B. Combine Queries by Using Append: This merges data, potentially increasing the dataset size.

D. Combine Queries by Using Merge: While useful for combining tables, it doesn't necessarily reduce data size.

E. Create a New Query Group: This organizes queries but does not directly impact performance or data reduction.

Reference:

<https://learn.microsoft.com/en-us/power-bi/guidance/import-modeling-data-reduction>

### Question: 155

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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?

- A.Yes
- B.No

### Answer: B

#### Explanation:

Create aggregations to summarize results. This seems to be saying group and summarize after the data has come through the gateway as an import. This will not reduce the traffic as it has already come through the gateway. Answer : B.No.

### Question: 156

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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?

- A.Yes
- B.No

**Answer: B**

**Explanation:**

1) Nothing to do with On-Prem data gateway  
2) It can be used with DirectQuery storage mode only.

<https://learn.microsoft.com/en-us/power-bi/create-reports/desktop-automatic-page-refresh>

**Question: 157**

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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?

- A.Yes
- B.No

**Answer: A**

**Explanation:**

Correct answer is A:Yes.

Configuring incremental refresh helps reduce the amount of data sent through the on-premises data gateway. It refreshes only the data that has changed, rather than refreshing the entire dataset, which minimizes the data load on the gateway. This solution is effective for models using import storage mode, where the entire dataset does not need to be refreshed every time.

**Question: 158**

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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?

A.Yes

B.No

**Answer: B**

**Explanation:**

The dashboard cache update frequency determines how often Power BI refreshes the dashboard visuals from the dataset. Adjusting this frequency does not directly reduce the amount of data sent through the on-premises data gateway for semantic models in Import storage mode.

### Question: 159

CertyIQ

HOTSPOT

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.

NOTE: Each correct selection is worth one point.

### Answer Area

Sales =

(  
CALCULATE  
CALCULATETABLE  
MAX  
SUM

[Sales],

) ('Unit'[Color] = "blue")  
CROSSFILTER  
FILTER  
ISFILTERED  
KEEPFILTERS

**Answer:**

### Answer Area

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

### Explanation:

CALCULATETABLE.

KEEPFILTERS.

CALCULATE evaluates a single expression (like [Sales]) within a modified filter context. In this scenario case, you want to filter the 'Unit'[Color] to "blue" while maintaining the existing filter context.

CALCULATETABLE would return a table, which would then need to be aggregated further (e.g., using SUMX), making it less direct and has a layer of complexity.

Second one , use KEEPFILTERS is the most appropriate for ensuring that the filter for blue is added to the existing context without overriding it.

### Question: 160

CertyIQ

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?

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

**Answer: A**

**Explanation:**

Removing unnecessary columns will directly reduce the model's size by eliminating data that isn't needed. This change won't affect query performance since the excluded data is not part of the model. The others B. Unpivot unnecessary columns: Increases model size by adding rows.C. Rename unnecessary columns: Doesn't reduce size, only changes labels.D. Change to DirectQuery: May reduce size but can slow down query performance.

**CertyIQ****Question: 161**

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? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- 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: AD****Explanation:**

A. Summarize the detail data: Since Import mode loads the entire dataset into memory, reducing the amount of detail data (for example, aggregating granular data like daily sales into monthly or yearly totals) can significantly reduce the size of the model in memory. This approach helps minimize memory usage and improves query performance.D. Optimize the column data types: In Import mode, data is compressed and optimized by the VertiPaq storage engine. Using more efficient column data types reduces memory consumption and ensures better compression when the data is loaded into memory. For instance, using integer or decimal data types instead of string can help achieve better compression and optimize performance.

<https://learn.microsoft.com/en-us/power-bi/connect-data/service-dataset-modes-understand>.

**CertyIQ****Question: 162**

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

<b>Table name</b>	<b>Column name</b>
Date	Date MonthName MonthStartDate MonthYear Year
Account	AccountID AccountNumber AccountName AccountCategory
Transactions	TransactionID TransactionDate AccountID TransAmt

You need to create a solution that meets the following requirements:

- Presents transaction amount totals for each month for the current and prior year
- Follows the star schema modeling approach
- Minimizes the data model size

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.Create one-to-many relationships between the tables.
- B.In the Transactions query, delete the TransactionID column.
- C.In the Date query, group by MonthNumber.
- D.In the Transactions query, group by AccountID and MonthStartDate for TransactionDate. Aggregate by summing the TransAmt column.
- E.In the Transactions query, add a column that contains the MonthStartDate value for TransactionDate.
- F.Create many-to-many relationships between the tables.

**Answer: ADE**

**Explanation:**

**A. Create one-to-many relationships between the tables.**

The star schema modeling approach involves creating one-to-many relationships between fact tables and dimension tables. This ensures an efficient and scalable data model, which is essential for optimizing query performance and maintaining data integrity.

**D. In the Transactions query, group by AccountID and MonthStartDate for TransactionDate. Aggregate by summing the TransAmt column.**

Grouping by AccountID and MonthStartDate and then aggregating by summing the TransAmt column reduces the number of rows in the fact table. This significantly minimizes the data model size while still providing the necessary transaction amount totals for each month.

**E. In the Transactions query, add a column that contains the MonthStartDate value for TransactionDate.**

Adding a column that contains the MonthStartDate value for TransactionDate allows for efficient grouping and aggregation of transactions by month. This is crucial for presenting transaction amount totals for each

month for the current and prior year, meeting the requirement for time-based analysis.

### Question: 163

CertyIQ

HOTSPOT

-

You have a Power BI semantic model that contains three tables named Products, OrderHistory, and Date.

The Products table is a dimension table that contains the following columns:

- ProductID
- ProductName

The OrderHistory table is a fact table that contains the following columns:

- OrderID
- ProductID
- OrderDate

The Date table is a dimension table that contains the following columns:

- Year
- Date
- Week
- Month

You need to define a relationship from Products to OrderHistory and from OrderHistory to Date.

Which cardinality should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct answer is worth one point.

## Answer Area

Between Product and OrderHistory:

	▼
Many-to-many	
One-to-many	
One-to-one	

Between OrderHistory and Date:

	▼
Many-to-many	
One-to-many	
One-to-one	

Answer:

## Answer Area

Between Product and OrderHistory:

Many-to-many
One-to-many
One-to-one

Between OrderHistory and Date:

Many-to-many
One-to-many
One-to-one

### Explanation:

#### 1. Product and Order History: **One-to-Many**.

A Product table typically contains unique product IDs, meaning each product appears only once.

The OrderHistory table stores multiple transactions, where a single product can be sold multiple times, creating multiple entries in OrderHistory for the same product.

This creates a One-to-Many (1:M) relationship:

One product can be in many orders.

Many orders can belong to one product.

#### 2. OrderHistory and Date : **One-to-One**.

The OrderHistory table records order transactions, including a date for each order.

A Date table generally contains one entry per unique date.

If each order in OrderHistory corresponds to a unique date entry (i.e., one row per date), a One-to-One relationship is formed.

## Question: 164

CertyIQ

### Answer:

You have a Power BI semantic model.

You need to create a column that will contain year-over-year (YOY) revenue. The column must contain a ratio of change factor compared to the previous year's monthly revenue.

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

NOTE: Each correct selection is worth one point.

Correct answer:

## Answer Area

Revenue YoY % =

```
VAR RevenuePriorYear = CALCULATE([Revenue],  
    RETURN  
        ( [Revenue] - RevenuePriorYear,  
            RevenuePriorYear  
        )  
    )
```

DIVIDE

calculates the % change safely, avoiding division-by-zero errors.

**SAMEPERIODLASTYEAR.**

This function returns a set of dates that exactly match the current selection from one year earlier.

### Explanation:

HOTSPOT

You have a Power BI semantic model.

You need to create a column that will contain year-over-year (YOY) revenue. The column must contain a ratio of change factor compared to the previous year's monthly revenue.

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

NOTE: Each correct selection is worth one point.

## Answer Area

Revenue YoY % =

```
VAR RevenuePriorYear = CALCULATE([Revenue],  
    RETURN  
        ( [Revenue] - RevenuePriorYear,  
            RevenuePriorYear  
        )  
    )
```

NEXTYEAR  
PARALLELPERIOD  
PREVIOUSYEAR  
**SAMEPERIODLASTYEAR**

Correct answer:

## Answer Area

Revenue YoY % =

VAR RevenuePriorYear = CALCULATE([Revenue],

RETURN

CALCULATE
DIVIDE
FACT
SUM

NEXTYEAR
PARALLELPERIOD
PREVIOUSYEAR
SAMEPERIODLASTYEAR

('Date'[Date]))

[Revenue] - RevenuePriorYear,

RevenuePriorYear

)

## Question: 165

CertyIQ

### HOTSPOT

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

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	
1/28/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	28	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1	
1/29/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	29	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1	
1/30/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	30	1/1/2010 12:00:00 AM	1/31/2010 12:00:00 AM	1	
1/31/2010 12:00:00 AM	Jan	1	Jan-10	201001	1	Q1	2010	31	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.

NOTE: Each correct selection is worth one point.

## Answer Area

You used [answer choice] on the Data table.

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

auto date/time  
bidirectional relationship  
quick measures

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

Answer:

## Answer Area

You used [answer choice] on the Data table.

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

auto date/time  
bidirectional relationship  
quick measures

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

Explanation:

**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.

**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: 166

CertyIQ

HOTSPOT

You have a Power BI semantic model that contains two tables named Sales and Forecast. Both tables contain a date column.

You need to create a calculated table that will cover the range of dates in both tables.

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

NOTE: Each correct selection is worth one point.

## Answer Area

daterange =

CALENDAR  
CALENDARAUTO  
DATEDIFF

COUNTX  
MAXX  
MINX

(Sales, [Date]),

MAXX  
MINX  
SUMX

(Forecast, [Date]))

**Answer:**

**Answer Area**

daterange =	(	(Sales, [Date]),	)	(Forecast, [Date]))
		CALENDAR	COUNTX	MAXX
		CALENDARAUTO	MAXX	MINX
		DATEDIFF	MINX	SUMX

**Explanation:**

**CALENDAR**

The CALENDAR function generates a table of dates from a start date to an end date.

**MINX**

MINX is an iterator function that evaluates an expression over a table and returns the minimum value.

**MAXX**

MAXX is also an iterator function that returns the maximum value of an expression across a table.

**Question: 167**

**CertyIQ**

You have a Power BI semantic model named Model1 that contains two tables named DimDate and FactSales. There is an active relationship between DimDate and FactSales. DimDate is marked as the date table. FactSales contains the following data.

Date	Sales amount
May 9, 2024	10
May 9, 2023	15
May 1, 2023	20
May 29, 2023	25

Model1 contains the following measure.

Previous Year Sales = CALCULATE([Sales Amount], PREVIOUSYEAR('Date'[Date]))

You have a report that uses Model1. The report has a single report page that has a page level filter set to May 9, 2024. The result of the Previous Year Sales measure is displayed in a card visual.

Which value will appear in the card visual?

- A.10
- B.15
- C.35
- D.60

**Answer: D**

**Explanation:**

Understanding the Components:

## Model Structure

Tables:

DimDate: a calendar table (marked as the official date table).

FactSales: contains sales data.

There is an active relationship between DimDate[Date] and FactSales[Date].

Measure Definition

DAX

Copy

Edit

Previous Year Sales = CALCULATE([Sales Amount], PREVIOUSYEAR('Date'[Date]))

[Sales Amount] is assumed to sum the sales from FactSales.

PREVIOUSYEAR('Date'[Date]) generates a new filter context for the entire previous calendar year based on the current filter context.

Report Filter

Page-level filter is set to:

javascript

Copy

Edit

'Date'[Date] = May 9, 2024

So, the visual initially sees a filter context of May 9, 2024.

How DAX Works Here

What does PREVIOUSYEAR('Date'[Date]) return?

PREVIOUSYEAR takes the current filter context (May 9, 2024), and replaces it with the full calendar year before that.

Therefore:

yaml

Copy

Edit

PREVIOUSYEAR(May 9, 2024) → Jan 1, 2023 – Dec 31, 2023

This overrides the page filter and instead filters FactSales to all rows that fall in 2023.

Sample FactSales Data (Implied from the Question)

Let's assume this is the FactSales data behind the options:

Date Sales Amount

2023-05-09 10

2023-06-01 15

2023-12-31 35

2024-05-09 60

The Previous Year Sales measure, when filtered by May 9, 2024, will calculate the sum of all Sales Amount for 2023, based on the PREVIOUSYEAR logic.

So:

Sum of 2023 entries:

10 (May 9, 2023)

15 (June 1, 2023)

35 (Dec 31, 2023)

Total = 10 + 15 + 35 = 60

## Question: 168

CertyIQ

You have a Power BI query named Expenses that imports the following data.

Column name	Description	Sample value
TransactionID	Contains the transaction ID of each expense	12142
TransactionDate	Contains the date and time that each expense occurred	2024-09-05T11:09:51
PostDate	Contains the date and time that each transaction was posted to the ledger	2024-09-08T06:11:05
AccountID	Contains the unique ID of each expense account	213412
DepartmentID	Contains the unique ID of the department responsible for each expense	13

Users only use the date portion of the TransactionDate value when performing data analysis.

You need to minimize the model size without affecting the analysis.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.Change the data type of the TransactionDate column to Date.
- B.Change the data type of the PostDate column to Date.
- C.Remove the PostDate column.
- D.Remove the TransactionID column.

**Answer: AC**

**Explanation:**

A. Change the data type of the TransactionDate column to Date.

Reason: Since users only use the date portion of the TransactionDate value, changing the data type to Date (from DateTime) will reduce the storage space required for this column, thus minimizing the model size.

C. Remove the PostDate column.

Reason: If the PostDate column is not used in any analysis, removing it will help minimize the data model size without impacting the analysis. Removing unused or redundant columns is an effective way to reduce the overall size of the data model.

### Question: 169

CertyIQ

You have a Power BI semantic model that contains two tables named DimCustomer and FactOrderDetails.

The primary key of DimCustomer is CustomerID.

FactOrderDetails contains a column named CustomerID that can be used to relate to DimCustomer. Multiple rows in FactOrderDetails possibly have the same CustomerID value.

You need to create a relationship from FactOrderDetails to DimCustomer. The solution must optimize query performance.

What should you create?

- A.an active, single-direction, many-to-one relationship
- B.an inactive, single-direction, one-to-many relationship
- C.an active, single-direction, one-to-many relationship
- D.an active, bi-directional, many-to-one relationship

### Answer: A

#### Explanation:

A. an active, single-direction, many-to-one relationship:

active: Good.

single-direction: Good for performance.

many-to-one: The cardinality is correct if viewed from FactOrderDetails to DimCustomer. However, standard Power BI nomenclature often describes it as "one-to-many" from DimCustomer to FactOrderDetails. This is technically correct in terms of which column is the "many" side of the foreign key and which is the "one" side of the primary key.

### Question: 170

CertyIQ

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

- Date
- Amount
- Category
- Expense ID
- Employee ID

Expenses are recorded by employees, and each expense has a unique expense ID.

You need to create a DAX measure that will calculate the total amount of expenses.

Which DAX expression should you use?

- A.Sum('Expenses'[Amount])
- B.Max('Expenses'[Amount])
- C.Sum('Expenses'[Expense ID])
- D.Count('Expenses'[Amount])

**Answer: A**

**Explanation:**

A. Sum('Expenses'[Amount]).

This adds up all the values in the [Amount] column, which is exactly what you want when calculating total expenses.

**Question: 171**

**CertyIQ**

HOTSPOT

-

You have a Power BI report with the Edit relationship page open as shown in the following exhibit.

## Edit relationship

X

Select tables and columns that are related.

### From table

Table1

Code	Make	Model
SM	500	Fiat
LU	8	BMW
SP	718	Porsche

### To table

Table2

Code	Name
SP	Sports Car
LU	Luxury Car

### Cardinality

One to many (1:\*)

### Cross-filter direction

Single

Make this relationship active

Apply security filter in both directions

Assume referential integrity

Save

Cancel

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

If you filter the Code column in Table2, Table1 will [answer choice].

be filtered  
be merged  
not be filtered

If you add the fields from both Table1 and Table2 to a table visual,  
the Code column from Table2 will display [answer choice] value.

a BLANK  
a NaN  
an ERROR

## Answer:

### Answer Area

If you filter the Code column in Table2, Table1 will [answer choice].

be filtered  
be merged  
**not be filtered**

If you add the fields from both Table1 and Table2 to a table visual,  
the Code column from Table2 will display [answer choice] value.

**a BLANK**  
a NaN  
an ERROR

## Explanation:

Step 1: "If you filter the Code column in Table2, Table1 will [answer choice]."

**not be filtered.**

In Power BI (and similar semantic models), whether Table1 is affected by filtering Table2 depends on the relationship direction between the two tables.

If no relationship exists between Table1 and Table2, then filtering one does not affect the other.

If a relationship exists but is single-directional (Table1 → Table2), then filtering Table2 does not propagate backward to Table1.

Only if there is a bi-directional relationship would filters flow both ways.

So, unless specifically stated that the relationship is bi-directional, the default assumption is single-directional, meaning Table1 will not be filtered when you filter Table2.

Step 2: "If you add the fields from both Table1 and Table2 to a table visual, the Code column from Table2 will display [answer choice]."

**a BLANK**

When you build a table visual that includes columns from unrelated tables (or tables without matching keys in the current filter context):

Power BI tries to match rows based on the model relationships.

If there's no relationship, or the current filter context produces no match, the result is BLANK for fields from the unrelated table.

### Question: 172

CertyIQ

HOTSPOT

You have a semantic model named Model1 that contains the following tables.

Name	Column
Sales	SalesAmount
Sales	ShippingDate
Sales	SaleDate
DateTime	Date

There is an active relationship between SaleDate and Date.

There is an inactive relationship between ShippingDate and Date.

You need to create a new measure that will display the total amount of sales and support slicing by ShippingDate.

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

NOTE: Each correct selection is worth one point.

#### Answer Area

Sales by ShippingDate =

(SUM(Sales[SalesAmount]),

**CALCULATE**

**COMBIN**

**MATCHBY**

**RANK**

(Sales[ShippingDate], DateTime[Date]))

**CROSSFILTER**

**FILTER**

**PATH**

**USERELATIONSHIP**

Answer:

## Answer Area

The screenshot shows the Power BI DAX editor. A dropdown menu is open with several options: CALCULATE, COMBIN, MATCHBY, RANK, CROSSFILTER, FILTER, PATH, and USERRELATIONSHIP. The CALCULATE option is highlighted with a black rectangle. Another dropdown menu is open below it, showing options: (SUM(Sales[SalesAmount])), (Sales[ShippingDate], DateTime[Date])). The USERRELATIONSHIP option in this second dropdown is also highlighted with a black rectangle.

### Explanation:

#### CALCULATE.

CALCULATE is used to modify the filter context of a measure.

In this case, you're changing the default date relationship used in filtering sales.

#### USERRELATIONSHIP.

It's common in models to have multiple date columns (like OrderDate, ShipDate), but only one active relationship is allowed at a time. Others must be activated via USERRELATIONSHIP.

## Question: 173

CertyIQ

You have a query in Power Query Editor that contains the following data.

StudentID	Student	Classes
1	John Yang	Biology, Chemistry, English, Calculus
2	Ruben Torres	English, Art History, Geography
3	Chloe Young	Spanish, Marketing, Economics
4	Destiny Wilson	Statistics, Physics

You need to transform the data to appear as shown in the following table.

StudentID	Student	Classes
1	John Yang	Biology
1	John Yang	Chemistry
1	John Yang	English
1	John Yang	Calculus
2	Ruben Torres	English
2	Ruben Torres	Art History
2	Ruben Torres	Geography
3	Chloe Young	Spanish
3	Chloe Young	Marketing
3	Chloe Young	Economics
4	Destiny Wilson	Statistics
4	Destiny Wilson	Physics

What should you do?

- A.Split the Classes column into rows by using a delimiter.
- B.Unpivot the Classes column.
- C.Extract the text between delimiters in the Classes column.
- D.Convert the Classes column into a list.

#### Answer: A

#### Explanation:

A. Split the Classes column into rows by using a delimiter.

Transform tab > Split Column > By Delimiter > Advanced Options > Split into Rows

Why the other options are incorrect:

B. Unpivot the Classes column

Unpivot is used when you have multiple columns that you want to turn into attribute-value rows — not for splitting within a single column.

C. Extract the text between delimiters

Extracting grabs one portion (e.g., first item), but it doesn't handle multiple values per row.

D. Convert to a list

Converting to a list might be useful in code, but not helpful for data shaping in the UI unless used inside a custom function.

#### Question: 174

CertyIQ

You have a Microsoft Fabric eventhouse named Eventhouse1 that contains high-velocity and high-volume data from IoT devices.

Eventhouse1 can be queried to deliver data to reports in near-real-time (NRT).

You plan to use Power BI Desktop to create a report that will contain both historical and live data.

You need to connect to Eventhouse1. The solution must minimize development effort.

What should you do?

- A.Build a composite model.
- B.Use DirectQuery connectivity mode.
- C.Use Import connectivity mode.

**Answer: A**

**Explanation:**

A. Build a composite model: A composite model is a valid solution if you needed to combine data from Eventhouse1 with data from another source that might be better suited for Import mode, or if you only needed to DirectQuery a subset of the Eventhouse data while importing aggregated historical data. However, for a single high-volume, NRT source that needs both historical and live data, DirectQuery is the most straightforward and minimal-effort approach first.

**Question: 175**

**CertyIQ**

You have a Power BI semantic model that contains the following tables.

Name	Product ID	Product name
DimProduct	1	Product A
	2	Product B
	3	Product C

Name	Sale date	Amount	Product ID
FactSales	January 1, 2024	5.00	1
	January 2, 2024	10.00	2
	February 10, 2024	5.00	1
	March 3, 2024	15.00	3

You need to define a relationship from FactSales to DimProduct. The solution must ensure the fastest DAX query performance.

Which cardinality should you use?

- A.one-to-many
- B.one-to-one
- C.many-to-many
- D.many-to-one

**Answer: D**

**Explanation:**

D. many-to-one

In a typical star schema used in Power BI and other BI systems:

Fact tables (e.g., FactSales) contain many transactions or events.

Dimension tables (e.g., DimProduct) contain unique, descriptive data about a business entity (like products, customers, etc.).

### Question: 176

CertyIQ

DRAG DROP

You have a Power BI semantic model that contains two tables named Dim Location and Fact Deliveries. The relationships between the tables are configured as shown in the following table.

From table	From column	To table	To column	Relationship
Dim Location	Location ID	Fact Deliveries	Origin Location ID	Active
Dim Location	Location ID	Fact Deliveries	Destination Location ID	Inactive

The model contains one measure that has the following formula.

Deliveries = COUNTROWS('Fact Deliveries')

You need to create a new measure that counts the number of deliveries based on the destination location.

How should you complete the DAX expression? To answer, drag the appropriate functions to the correct targets. Each function 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.

NOTE: Each correct selection is worth one point.

Functions	Answer Area
ALLSELECTED	Deliveries by Destination = <input type="text"/> ([Deliveries], <input type="text"/> )
CALCULATE	Location'[Location ID], 'Fact Deliveries'[Destination Location ID])
USERELATIONSHIP	
CALCULATETABLE	
CROSSFILTER	
KEEPFILTERS	

### Answer:

Functions	Answer Area
ALLSELECTED	Deliveries by Destination = <input type="text"/> ([Deliveries], <input type="text"/> )
CALCULATE	Location'[Location ID], 'Fact Deliveries'[Destination Location ID])
USERELATIONSHIP	
CALCULATETABLE	
CROSSFILTER	
KEEPFILTERS	

### Explanation:

**CALCULATE.**

Used to modify the filter context.

It changes how the base measure [Deliveries] is evaluated.

### **USERELATIONSHIP.**

Activates an inactive relationship for this calculation only.

Specifically, it's saying:

"When calculating [Deliveries], use the relationship between Location[Location ID] and Fact Deliveries[Destination Location ID]."

## **Question: 177**

**CertyIQ**

HOTSPOT

-

You import a Microsoft Excel spreadsheet into Power Query Editor and name the query Sales\_Spreadsheet.

Sales\_Spreadsheet contains the following columns:

- Customer ID
- Customer Name
- Date
- Total Sales Amount

You plan to use the Sales Spreadsheet query to load two tables named Customer and Sales into the associated semantic model. The tables relate to each other on the Customer ID column of each query. The solution must meet the following requirements:

- The Customer query must contain the Customer ID and Customer Name columns.
- The Sales query must contain the Customer ID, Date, and Total Sales Amount columns.
- Power Query logic must be consolidated to avoid the duplication of logic across the queries and ensure that only one location is used to update the logic.

You need to identify how to create the Sales query, and what to do to the Sales\_Spreadsheet query before loading the model?

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

### **Answer Area**

Sales:

- Create a new query that has an Excel source.
- Duplicate the Sales\_Spreadsheet query.
- Reference the Sales\_Spreadsheet query.

Sales\_Spreadsheet:

- Delete the query.
- Disable the load to the model.
- Exclude the query from report refresh.

**Answer:**

## Answer Area

Sales:

- Create a new query that has an Excel source.
- Duplicate the Sales\_Spreadsheet query.
- Reference the Sales\_Spreadsheet query.

Sales\_Spreadsheet:

- Delete the query.
- Disable the load to the model.
- Exclude the query from report refresh.

## Explanation:

**Sales:** **Reference the Sales\_Spreadsheet query.**

This means the Sales query is dependent on or built from the results of the Sales\_Spreadsheet query.

It's like creating a view over Sales\_Spreadsheet.

Referencing is better than duplicating because:

It avoids creating a copy of the entire query logic.

It is more efficient, maintains a single source of truth, and makes updates easier.

**Sales\_Spreadsheet:** **Disable the load to the model.**

This prevents the intermediate query (Sales\_Spreadsheet) from being loaded into the data model (i.e., it won't appear in the Fields pane).

It still executes as a dependency but doesn't consume memory in the final model.

Best practice when the query is used only as a staging or transformation step.

## Question: 178

CertyIQ

HOTSPOT

-

You have a semantic model that has the relationships shown in the following exhibit.

## Manage relationships

X

+ New relationship

Autodetect

Edit

Delete

Filter

<input type="checkbox"/> From: table (column)	Relationship	To: table (column) ↑	Status	...
<input type="checkbox"/> FactOrderDetails (CustomerID)	* — 1	DimCustomer (CustomerID)	Active	...
<input type="checkbox"/> FactOrderDetails (OrderDate)	* — 1	DimDate (Date)	Active	...
<input type="checkbox"/> FactOrderDetails (ShippedDate)	* — 1	DimDate (Date)	Inactive	...
<input type="checkbox"/> FactOrderDetails (RequiredDate)	* — 1	DimDate (Date)	Inactive	...
<input type="checkbox"/> FactOrderDetails (ProductID)	* — 1	DimProducts (ProductID)	Active	...

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

DimDate is a [answer choice] dimension.

▼  
degenerate  
role-playing  
snowflake

Filtering DimDate to a specific date will [answer choice].

▼  
filter FactOrderDetails on OrderDate  
filter FactOrderDetails on RequiredDate  
filter FactOrderDetails on ShippedDate  
not filter FactOrderDetails

### Answer:

#### Answer Area

DimDate is a [answer choice] dimension.

▼  
degenerate  
role-playing  
snowflake

Filtering DimDate to a specific date will [answer choice].

▼  
filter FactOrderDetails on OrderDate  
filter FactOrderDetails on RequiredDate  
filter FactOrderDetails on ShippedDate  
not filter FactOrderDetails

**Explanation:**

role-playing.

A role-playing dimension is one physical table that is used multiple times in a data model to play different roles.

not filter FactOrderDetails.

In a role-playing scenario, if you filter the base DimDate table (not a specific alias like DimDate\_Order, DimDate\_Shipped), there is no direct relationship from the base table to FactOrderDetails.

So, applying a filter on DimDate directly will not affect the fact table.

**Question: 179****CertyIQ**

HOTSPOT

-

You use Power Query Editor to ingest data into Power BI Desktop.

The total dataset contains 250,000 rows. All the rows match the format of the data as shown in the following exhibit.

	A <sup>B</sup> Value	A <sup>B</sup> Datetime	A <sup>B</sup> Information
1	78000.00	2024-08-15 00:00:00.000	The sheep jumps over the fence
2	85000.00	2023-05-17 00:00:00.000	The cows fall into a pond
3	17000.00	2020-01-31 00:00:00.000	The birds eats seeds

You need to optimize the data model size of the table.

Which type of data should you use for the Value column and the Datetime column? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Value:

- Decimal number
- Fixed decimal number
- Percentage
- Whole number

Datetime:

- Date
- Date/time/timezone
- Datetime
- Time

Answer:

## Answer Area

Value:

- Decimal number
- Fixed decimal number
- Percentage
- Whole number

Datetime:

- Date
- Date/time/timezone
- Datetime
- Time

Explanation:

Value: **Whole number**.

You selected the "Whole number" data type.

This means the column will store integer values only (e.g., 10, -5, 0).

No decimal places or fractions are allowed.

Suitable for:

IDs

Counts (e.g., number of items, quantity sold)

Any numeric value that will never include fractions.

Datetime: **Date**.

You selected the "Date" data type.

This means the column will store values in date format only (e.g., 2025-07-04) without time.

Suitable for:

Calendar-based operations (year, month, quarter)

Date hierarchies in visuals

Filtering by dates, not timestamps.

CertyIQ

### Question: 180

You have a Power BI semantic model that contains a table named Table1. Table1 runs in Import storage mode.

You need to update the model to change the storage mode of Table1 to DirectQuery.

What should you do?

- A.Delete Table1, and then add the table to the model again in DirectQuery storage mode.
- B.From Power Query Editor, duplicate the query for Table1.
- C.From Model view, change the storage mode of Table1 to DirectQuery.
- D.Add an aggregation table to the model.

**Answer: A**

**Explanation:**

A: Delete Table1, and then add the table to the model again in DirectQuery storage mode — but only under certain conditions.

In Power BI, you cannot change the storage mode of a table from Import to DirectQuery directly in some scenarios. Specifically,

If a table was originally created using Import mode, you cannot simply switch its mode to DirectQuery from the Model view or Power Query Editor.

CertyIQ

### Question: 181

HOTSPOT

-

You have a Power BI semantic model that contains the following tables.

Name	Storage mode	Related table
Date	DirectQuery	Sales, Survey Response
Sales	DirectQuery	Date, Customer
Survey Response	Import	Date, Customer
Customer	DirectQuery	Sales, Survey Response
Geography	DirectQuery	Customer

All the tables use the same data source.

You need to reduce the number of limited relationships in the model by changing the storage mode of certain tables. The solution must NOT affect the latency of the data.

Which storage mode should you select for the Customer and Geography tables? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Customer:

DirectQuery  
 Dual  
 Import

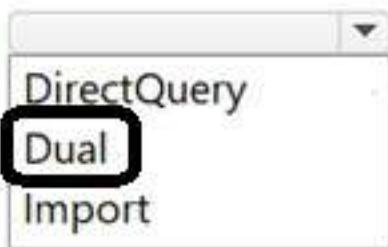
Geography:

DirectQuery  
 Dual  
 Import

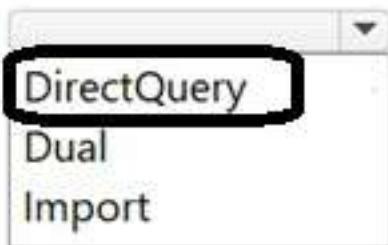
Answer:

## Answer Area

Customer:



Geography:



### Explanation:

Customer: **Dual**.

This setting allows the Customer table to be used flexibly:

In a report using only Import-mode tables → acts as Import

In a report with DirectQuery tables → acts as DirectQuery

Best used for dimension tables that relate to both Import and DirectQuery fact tables.

Improves performance by allowing cached queries when possible, and real-time when needed.

Geography: **DirectQuery**.

Always queries the source live.

Good for real-time reporting or when data is too large to import.

Can slow performance, especially with complex filters or large datasets.

Typically used for fact tables or frequently updated tables.

## Question: 182

CertyIQ

HOTSPOT

-

You have a semantic model that contains a table named Sales. The table contains the following columns:

- Order ID
- Product ID
- Sales Date
- Sales Amount

You need to create a DAX measure that will return the total sales amount for the same dates from the previous year.

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

NOTE: Each correct selection is worth one point.

### Answer Area

PrevYearTotalSalesAmount=

CALCULATE  
CALCULATETABLE  
SUMX

(SUM(Sales[Sales Amount]),

(Sales[Sales Date]))

SAMEPERIODLASTYEAR  
PARALLELPERIOD  
PREVIOUSYEAR

Answer:

### Answer Area

PrevYearTotalSalesAmount=

CALCULATE  
CALCULATETABLE  
SUMX

(SUM(Sales[Sales Amount]),

(Sales[Sales Date]))

SAMEPERIODLASTYEAR  
PARALLELPERIOD  
PREVIOUSYEAR

Explanation:

**CALCULATE.**

CALCULATE modifies the filter context of a measure.

It is required whenever you want to evaluate a measure in a different time period or filter scenario.

we are calculating the SUM of sales but applying a time shift.

**SAMEPERIODLASTYEAR.**

This function returns a table of dates for the same period in the previous year.

It works best when:

A proper date table is present and marked as a date table in the model.

The current filter context is on dates, months, quarters, etc.

It ensures accurate alignment even in cases like leap years or different month lengths.

### Question: 183

HOTSPOT

-

You have a Power BI semantic model that contains the following table named Employees.

CertyIQ

EmployeeID	HireDate	TermDate
1	January 2, 2020	December 30, 2022
2	January 2, 2022	
3	January 29, 2024	
4	October 30, 2023	May 10, 2024

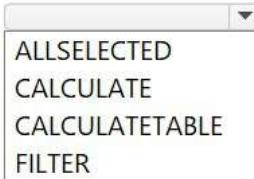
An employee is considered active if the TermDate column for that employee contains no value.

You need to create a DAX measure that will count the number of active employees.

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

NOTE: Each correct selection is worth one point.

#### Answer Area

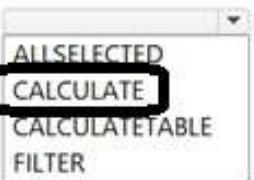
Actives =  ('Employees' [TermDate]))

ALLSELECTED
CALCULATE
CALCULATETABLE
FILTER

BLANK
COUNT
ISBLANK
ISEMPTY

#### Answer:

##### Answer Area

Actives =  ('Employees' [TermDate]))

ALLSELECTED
<b>CALCULATE</b>
CALCULATETABLE
FILTER

BLANK
COUNT
<b>ISBLANK</b>
ISEMPTY

#### Explanation:

CALCULATE.

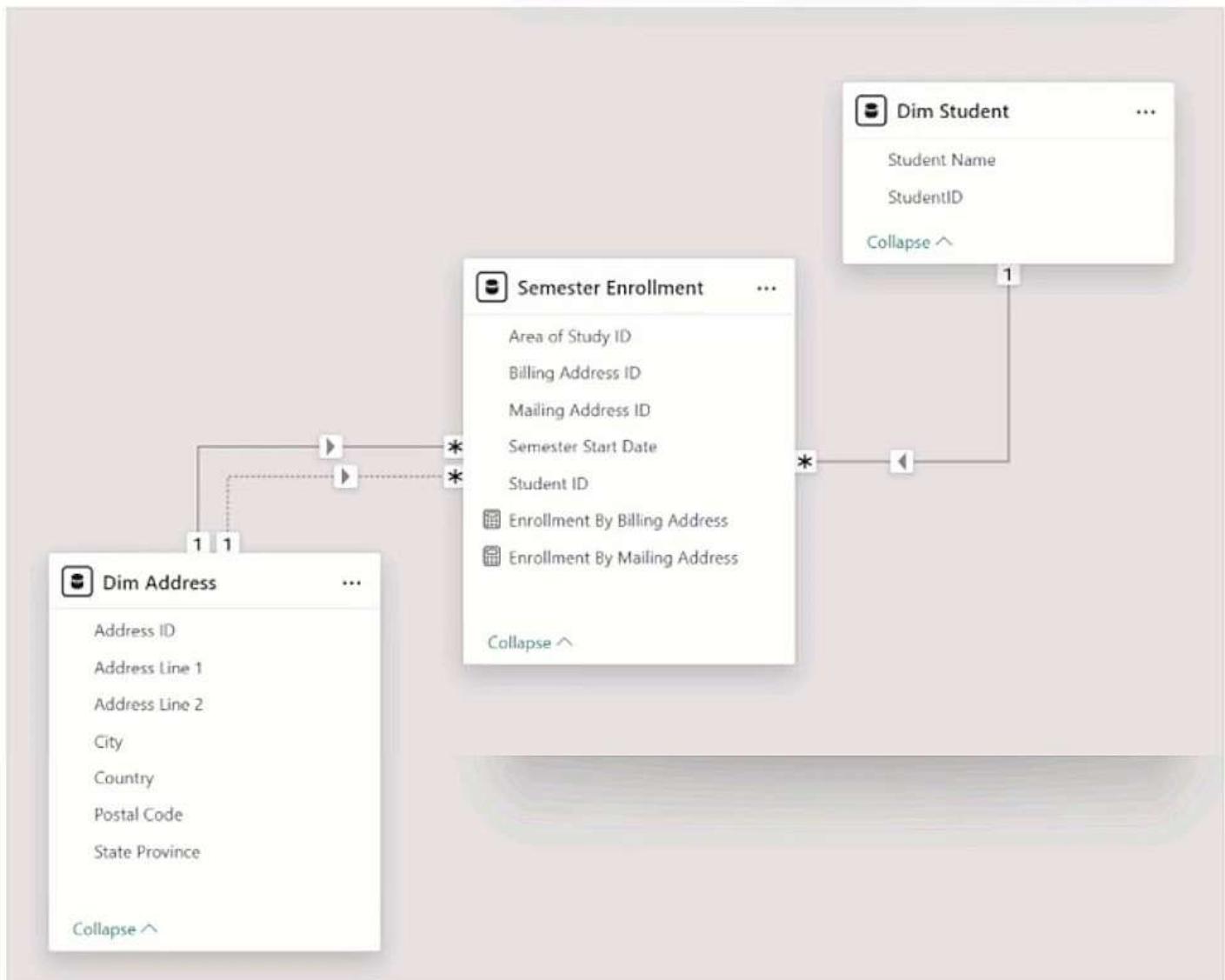
Changes the context in which the calculation is evaluated.

In this case, it's counting employees under a specific condition.

IS BLANK.

#### Question: 184

You have a Power BI semantic model that has the tables and relationships shown in the following exhibit.



Which type of dimension is represented by Dim Address?

- A.Type 2 slowly changing dimension (SCD)
- B.junk dimension
- C.role-playing dimension
- D.degenerate dimension

**Answer: A**

**Explanation:**

- A. Type 2 slowly changing dimension (SCD)

A Dim Address table typically represents address-related information (e.g., street, city, state, zip, etc.) associated with entities like customers, suppliers, or employees.

In real-world scenarios, addresses can change over time, and when you want to track historical changes (e.g., where a customer lived previously), you use a Type 2 Slowly Changing Dimension (SCD).

**Question: 185**

DRAG DROP -

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

**CertyIQ**

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.

Select and Place:

Actions	Answer Area
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:

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

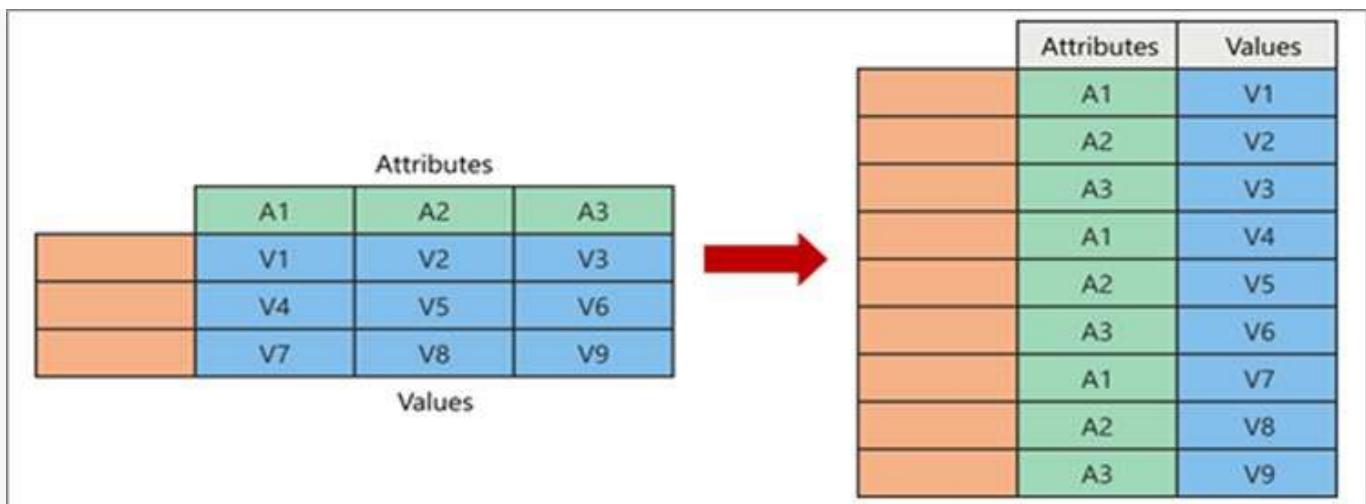
### Explanation:

Step 1: Select the [Department] and [Stage] columns and unpivot the other columns.

We unpivot the School1, School2, School3, and the School4 columns.

You might want to unpivot data, sometimes called flattening the data, to put it in a matrix format so that all similar values are in one column.

Example:



When you unpivot, you unpack the attribute-value pairs that represent an intersection point of the new columns and re-orient them into flattened columns:

- \* Values (in blue on the left) are unpivoted into a new column (in blue on the right).
- \* Attributes (in green on the left) are unpivoted into a new column (in green on the right) and duplicates are correspondingly mapped to the new Values column.

Step 2: Rename the [Attribute] column as [School] and the [Value] column as [Score],

Step 3: Group by [Department] and [School] and..

Reference:

<https://support.microsoft.com/en-us/office/unpivot-columns-power-query-0f7bad4b-9ea1-49c1-9d95-f588221c7098>

## Question: 186

CertyIQ

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.

How should the visual interactions be set on the column chart when the bar chart is selected?

- A. highlight
- B. filter
- C. no impact

## Answer: A

### Explanation:

In most visuals, highlighting doesn't remove the unrelated data. Instead it highlights the related data. The rest of the data remains visible but dimmed.

Note: By default, visualizations on a report page can be used to cross-filter and cross-highlight the other visualizations on the page. For example, selecting a state on a map visualization highlights the column chart and filters the line chart to display only data that applies to that one state.

Incorrect:

Not B: Filters remove all but the data you want to focus on.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-reports-filters-and-highlighting>

A user creates a Power BI report named ReportA that uses a custom theme.

You create a dashboard named DashboardA.

You need to ensure that DashboardA uses the custom theme. The solution must minimize development effort.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- 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: BE****Explanation:**

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

**B. From ReportA, save the current theme**

**Reason:** Saving the custom theme in **ReportA** allows you to export and reuse it in other reports or dashboards.

**E. From DashboardA, upload a JSON theme**

**Reason:** Uploading the saved JSON theme from **ReportA** to **DashboardA** applies the custom theme to the dashboard.

**Why Other Options Are Incorrect:**

- A. Publish ReportA to Power BI

Publishing alone does not ensure the custom theme is reused in the dashboard.

- C. Publish ReportA to the Microsoft Power BI Community theme gallery

This is unnecessary for applying the theme to a dashboard.

- D. From DashboardA, create a custom theme

This would require extra effort to create a new theme instead of reusing the one from ReportA.

<https://learn.microsoft.com/en-us/power-bi/create-reports/service-dashboard-themes>

scroll down to part that says JSON themes

You need to create a visualization that compares revenue and cost over time.  
Which type of visualization should you use?

- A. waterfall chart
- B. stacked area chart
- C. line chart
- D. donut chart

**Answer: C**

**Explanation:**

Line charts can have many different lines, for example both revenue and cost over time.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-line-chart>

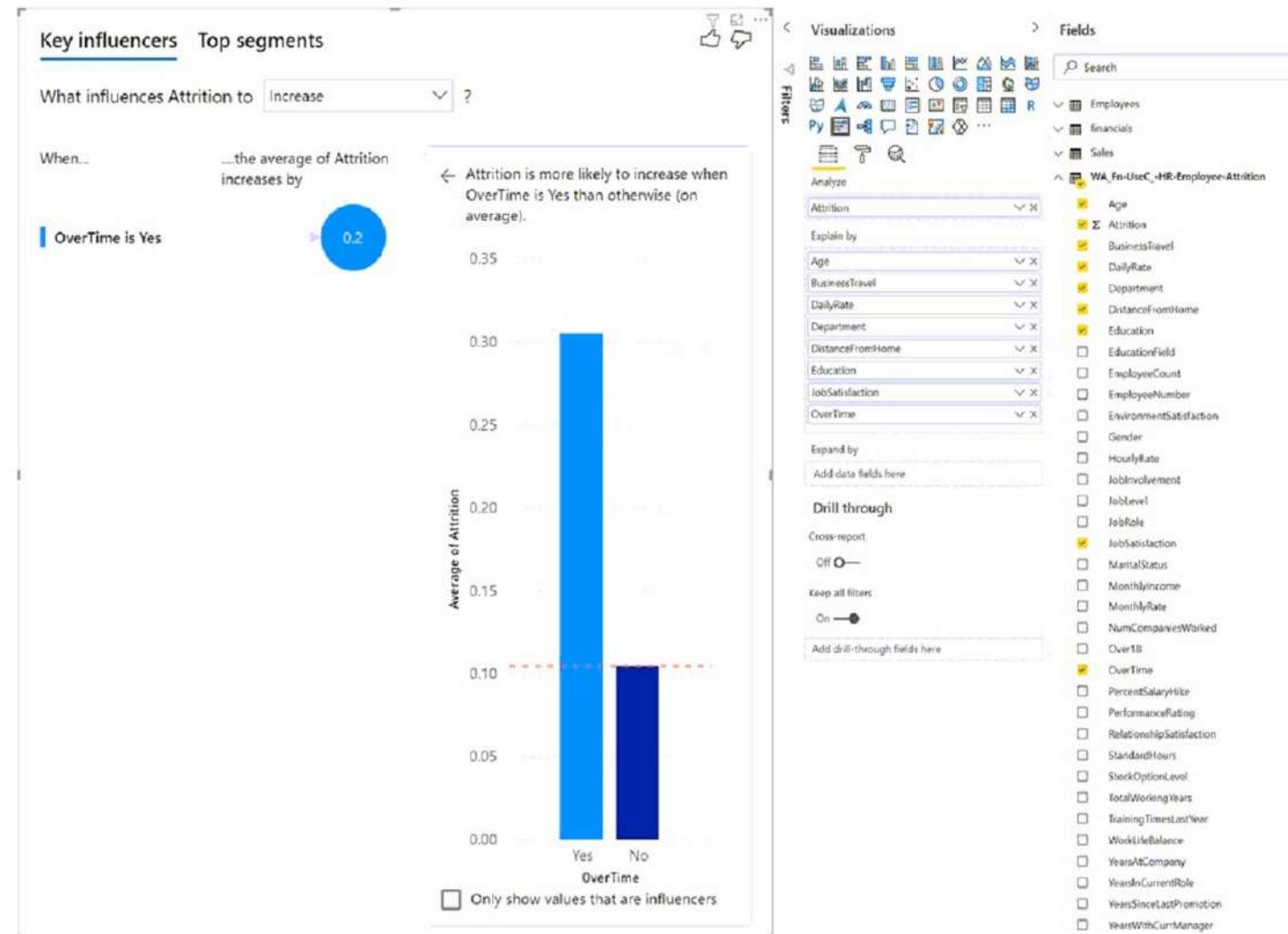
## Question: 189

CertyIQ

HOTSPOT -

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.

NOTE: Each correct selection is worth one point.

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:

### 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

## Explanation:

### Box 1: adding more fields to Explain By

### Box 2: 3

0.30 instead of 0.10. A factor of 3 greater.

moving fields from explain to expand should not add any new factors in analysis

## Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

## Question: 190

CertyIQ

You build a report to help the sales team understand its performance and the drivers of sales. The team needs to have a single visualization to identify which factors affect success. Which type of visualization should you use?

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

## Answer: A

## Explanation:

The key influencers visual helps you understand the factors that drive a metric you're interested in. It analyzes your data, ranks the factors that matter, and displays them as key influencers. For example, suppose you want to figure out what influences employee turnover, which is also known as churn. One factor might be employment contract length, and another factor might be commute time.

When to use key influencers.

The key influencers visual is a great choice if you want to:

See which factors affect the metric being analyzed.

Contrast the relative importance of these factors. For example, do short-term contracts affect churn more than long-term contracts?

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

### Question: 191

CertyIQ

HOTSPOT -

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.)

## Key influencers Top segments

What influences Total Sales to Increase ?

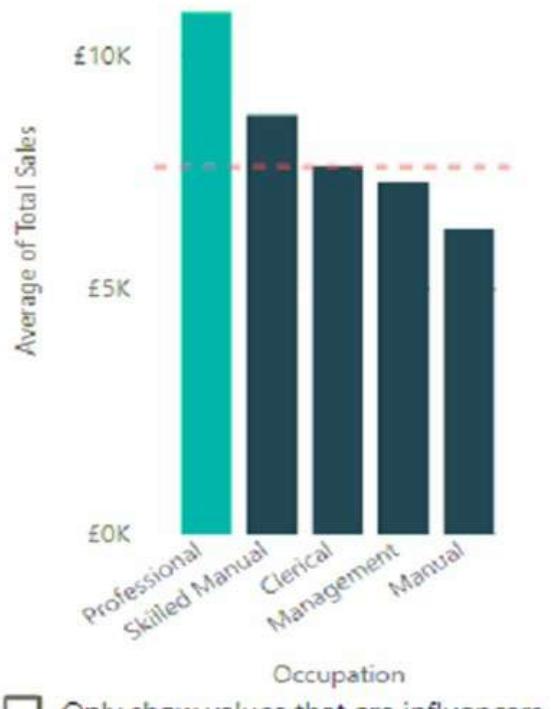
When...

...the average of Total Sales increases by

Occupation is Professional

→ **£3.41K**

← Total Sales is more likely to increase when Occupation is Professional than otherwise (on average).



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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Analyze:

	▼
City	
Occupation	
Total Sales	

Explain by:

	▼
City	
Occupation	
Total Sales	

Answer:

# Answer Area

Analyze:

	▼
City	
Occupation	
Total Sales	

Explain by:

	▼
City	
Occupation	
Total Sales	

## Explanation:

### 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.

## Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

## Question: 192

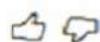
CertyIQ

You are using the key influencers visual to identify which factors affect the quantity of items sold in an order. You add the following fields to the Explain By field:

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

The key influencers visual returns the results shown in the following exhibit.

## Key influencers Top segments



What influences Quantity Per Order to Increase



When...

...the average of Quantity Per Order increases by

Customer City is Cunewalde

22.39

Customer City is Graz

22.21

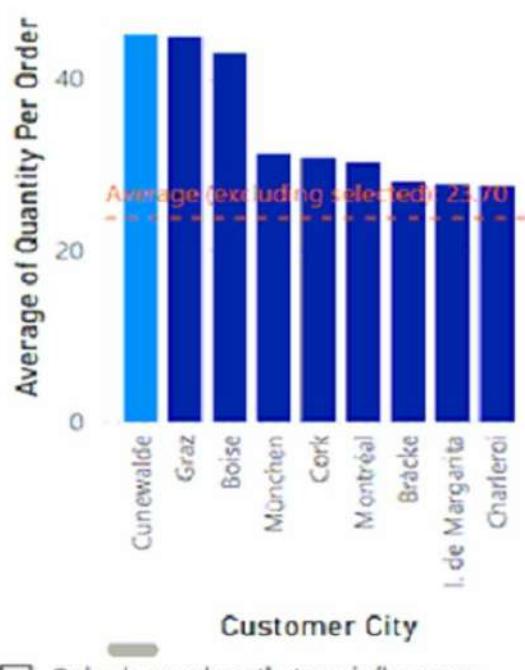
Customer City is Boise

20.37

Customer Country is Austria

18.8

← Quantity Per Order is more likely to increase when Customer City is Cunewalde than otherwise (on average).



What can you identify from the visual?

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

**Answer: A**

**Explanation:**

Average quantity of units is displayed.

Incorrect:

Not B: Average quantity of units is displayed, not percentage.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

### Question: 193

CertyIQ

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.

What are two possible recommendations to achieve this goal? Each correct answer presents a complete solution.  
NOTE: Each correct selection is worth one point.

- 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: BC**

**Explanation:**

C: You can sync a slicer and use it on any or all pages in a report.

B: You can set filters at three different levels for the report: visual-level, page-level, and report-level.

Note: Suppose you want your report readers to be able to look at overall sales metrics, but also highlight performance for individual district managers and different time frames. You could create separate reports or comparative charts. You could add filters in the Filters pane. Or you could use slicers. Slicers are another way of filtering. They narrow the portion of the dataset that is shown in the other report visualizations.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-report-add-filter>

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-slicers>

**Question: 194**

**CertyIQ**

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.

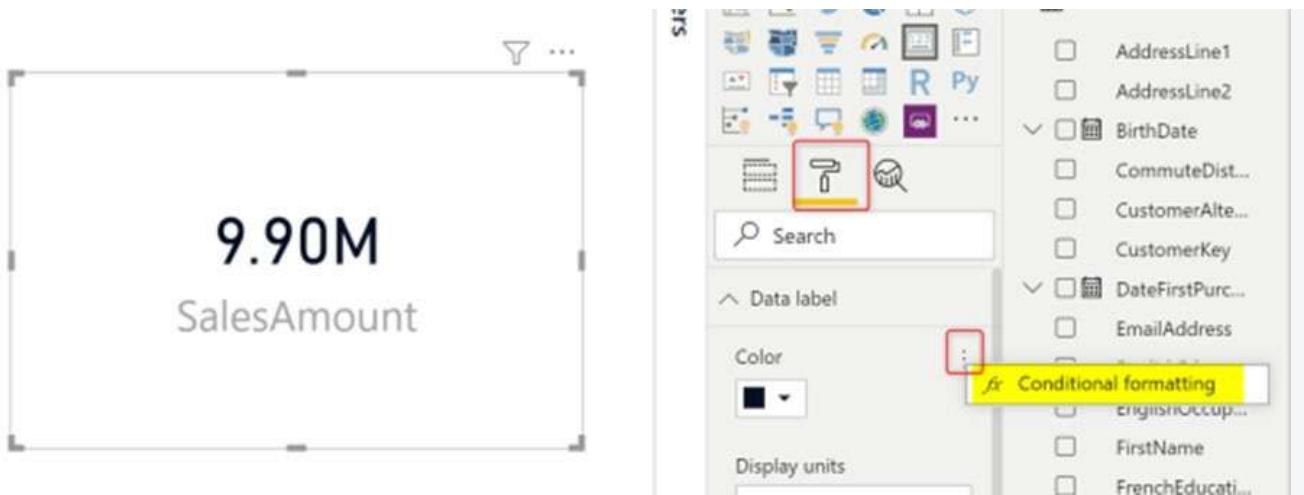
Which type of format should you use?

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

**Answer: B**

**Explanation:**

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

Format by Rules ▾ [Learn more](#)

Based on f Color scale

Rules

Field value

Rules

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

## Color

Format by [Rules](#) [Learn more](#)

Based on field

Sum of SalesAmount

Summarization

Sum

Rules

[Reverse color order](#)

[+ New rule](#)

If value is greater than or equal to 0 and is less than 500000 then █

If value is greater than or equal to 500001 and is less than 800000 then █

If value is greater than or equal to 800001 and is less than 1500000 then █

Reference:

<https://radacad.com/enhance-the-card-visual-in-power-bi-with-conditional-formatting>

CertyIQ

## Question: 195

DRAG DROP -

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.

Select and Place:

### 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



## Answer:

### 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.

## Explanation:

3>2>1

1. From DashboardA, select the TilaA options, and then select View Insights
2. From Focus mode, review the generated visuals
3. From Focus mode, pin the relevant visuals to DashboardA

**Question: 196**

You are creating a dashboard by 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?

- 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**

**Explanation:**

One way to add a new dashboard tile is by pinning an entire report page. This is an easy way to pin more than one visualization at a time. Also, when you pin an entire page, the tiles are live; you can interact with them right there on the dashboard. And changes you make to any of the visualizations back in the report editor, like adding a filter or changing the fields used in the chart, are reflected in the dashboard tile as well.  
Pinning live tiles from reports to dashboards is only available in Power BI service ([app.powerbi.com](http://app.powerbi.com)).

**Reference:**

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-pin-live-tile-from-report>

**Question: 197**

HOTSPOT -

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

MonthName	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	63.06%
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%
<b>Total</b>	<b>£9,952,759.56</b>	<b>£4,249,964.36</b>	<b>57.30%</b>

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.

NOTE: Each correct selection is worth one point.

Hot Area:

# Answer Area

Conditional  
formatting:

- ▼
- Background color
- Data bars
- Font color
- Icons
- Web URL

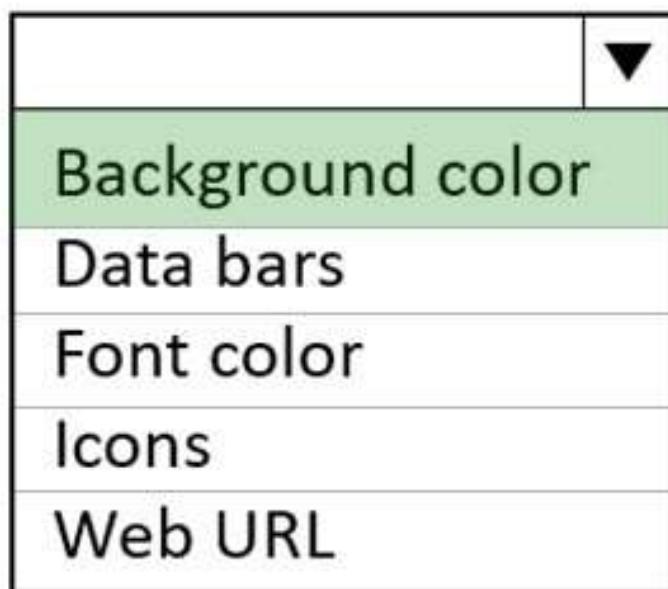
Format by:

- ▼
- Color scale
- Field value
- Rules

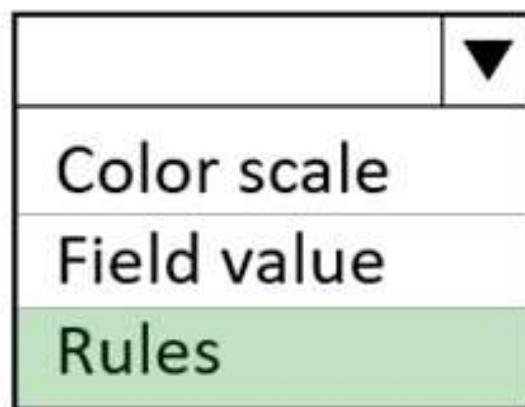
Answer:

# Answer Area

Conditional  
formatting:



Format by:



## 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.

The screenshot shows the Power BI Fields pane. On the left, there's a list of fields: Overall rank, 10, 5, 36, 17, 28, 19, 16, 41, 11, and 38. In the center, under 'Visualizations', there are icons for various chart types. Below them, under 'Values', there are icons for a grid and a histogram, both of which are highlighted with red boxes. A context menu is open over the 'Affordability' field, which is also highlighted with a red box. The menu options are: Remove field, Rename, Move, Conditional formatting (which is highlighted with a red box), Remove conditional formatting, Don't summarize, Sum (which has a checked checkmark), Average, Background color, Font color, Data bars, Icons, and Web URL.

Overall rank

10

5

36

17

28

19

16

41

11

38

Visualizations

Filters

Fields

Search

Best states for sun...

State codes

Values

State

Weather

Affordability

Remove field

Rename

Move

Conditional formatting

Remove conditional formatting

Don't summarize

Sum

Average

Background color

Font color

Data bars

Icons

Web URL

#### 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.

Background color - Affordability

Format by: Rules (highlighted with a red box)

Apply to: Values only

Based on field: Sum of Affordability

Summarization: Sum

Rules:

- If value is greater than or equal to 0 Percent and is less than 33 Percent then Green
- If value is greater than or equal to 34 Percent and is less than 66 Percent then Yellow
- If value is greater than or equal to 67 Percent and is less than 100 Number then Red

Buttons: Reverse color order, + New rule, OK, Cancel

[Learn more](#)

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-conditional-table-formatting>

### Question: 198

CertyIQ

DRAG DROP -

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.

Select and Place:

Actions	Answer Area
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:

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

### Explanation:

Pin -> open -> edit -> rearrange

**Step 1: Pin items from the reports to the dashboard**

**Step 2: Open the dashboard.**

Open the dashboard to see the pinned live tile,

From the nav pane, select the dashboard with the new live tile. There, you can do things like rename, resize, link, and move the pinned report page.

### Step 3: Edit the dashboard mobile view

Open a report in Editing view.

### Step 4: Rearrange, resize, or remove items from the mobile layout

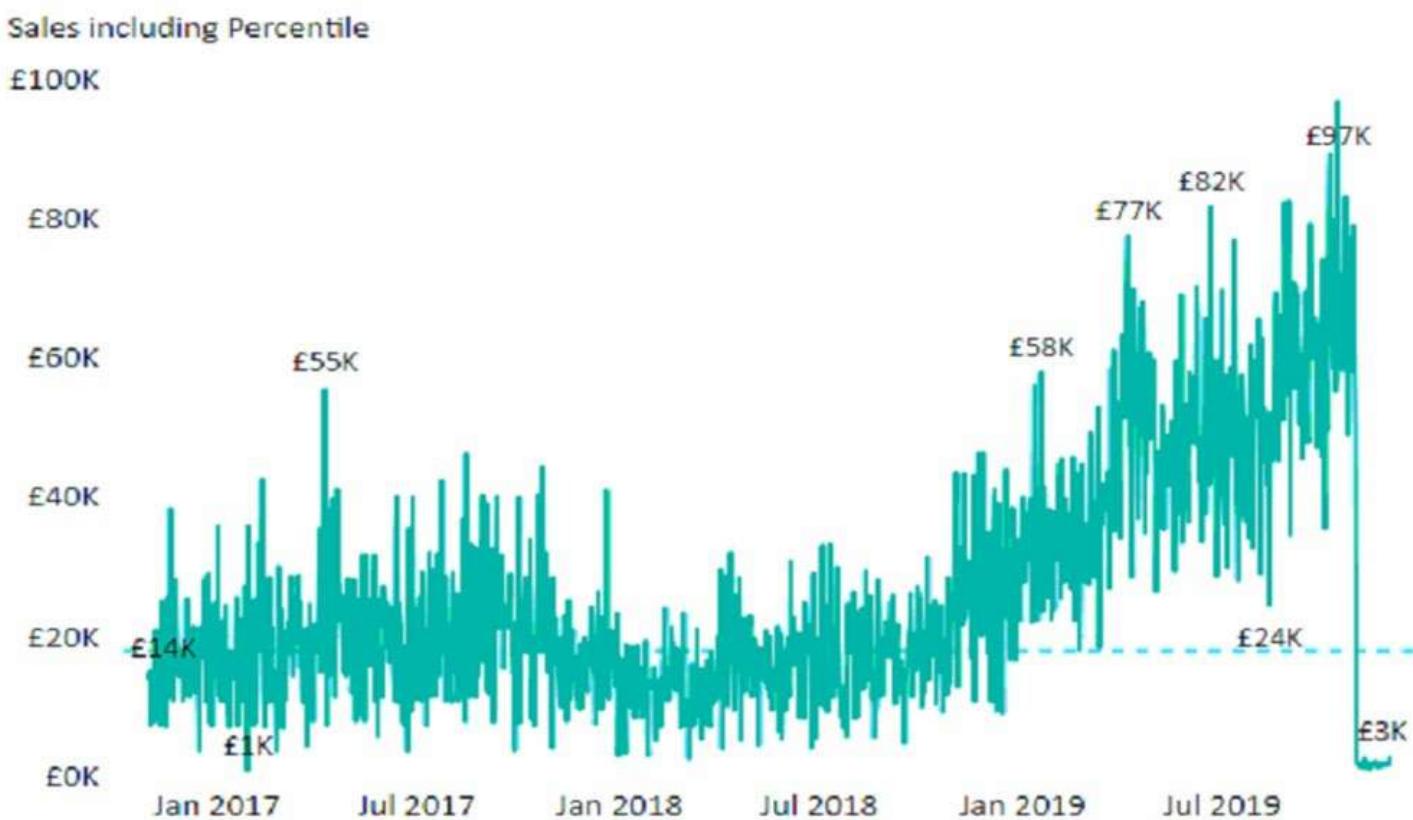
Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-pin-live-tile-from-report>

## Question: 199

CertyIQ

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?

- 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

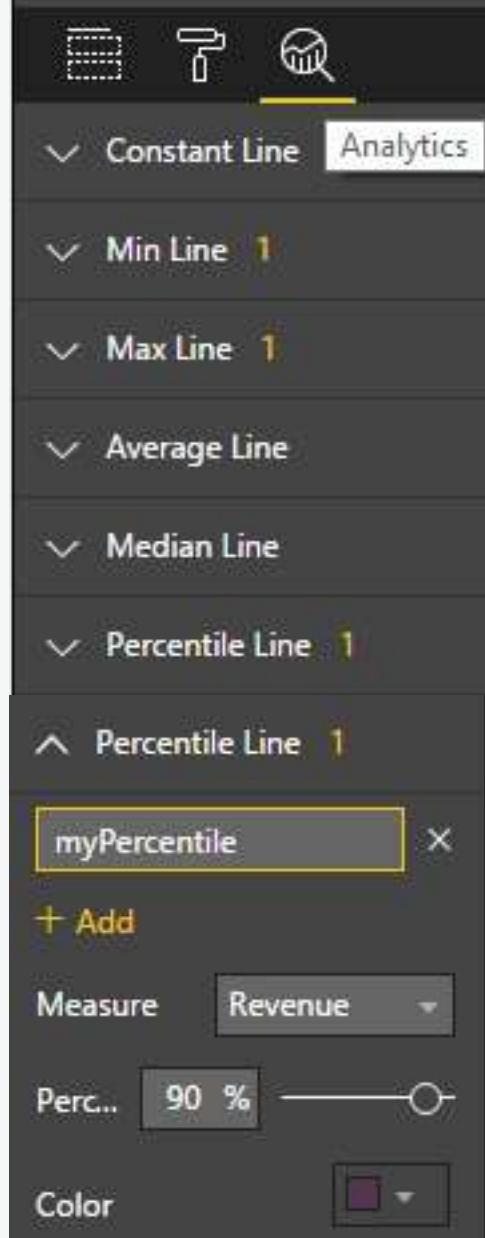
### Explanation:

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



Reference:

[https://www.dash-intel.com/powerbi/statistical\\_functions\\_percentile.php](https://www.dash-intel.com/powerbi/statistical_functions_percentile.php)

## Question: 200

CertyIQ

You are building a Power BI report.

Users will view the report by using their mobile device.

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

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- 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: BD

### Explanation:

B: Identify geographic data in your report

1. In Power BI Desktop, switch to Data View Data View icon.
2. Select a column with geographic data " for example, a City column.
3. On the Modeling tab, select Data Category, then the correct category " in this example, City.

The screenshot shows the 'Column tools' pane in Power BI. The 'Formatting' section is visible on the left, and the 'Address' section is on the right. A table is displayed with columns: Reseller, City, State-Prov, Place, and Postal Cod. The 'City' column header is highlighted with a yellow background. In the 'Data category' dropdown under the 'Address' section, the value 'City' is selected and highlighted with a red box. Other options in the dropdown include 'Uncategorized', 'County', 'State or Province', 'Postal code', 'Country', 'Continent', and 'Latitude'. The 'Summarization' dropdown shows 'Don't summarize'.

Reseller	City	State-Prov	Place	Postal Cod
Accessories Company	Alhambra	California	City	91801
ipping Service	Alpine	California	City	91901
s	Auburn	California	County	95603
rts Equipment	Baldwin Park	California	State or Province	91706
e Store	Barstow	California	Postal code	92311
Bikes Company	Bell Gardens	California	Country	90201
xercise Company	Camarillo	California	Continent	93010
ng Goods	Camarillo	California	Latitude	93010
Bike Store	Camarillo	California		93010
g Supplies	Canoga Park	California		91303

4. Continue setting geographic data categories for any other fields in the model.

D: Create visuals with your geographic data

Switch to Report view Report View icon, and create visuals that use the geographic fields in your data.

The screenshot shows a Power BI desktop interface with two visualizations: a clustered column chart and a world map. The Fields pane on the right lists fields from the 'Reseller' table and the 'Sales' table. The 'City + State' field and the 'Σ Sales Amount' field are both highlighted with red boxes.

In this example, the model also contains a calculated column that brings city and state together in one column.

The screenshot shows the Power BI Fields pane with the 'Reseller' table expanded. The 'City + State' field is highlighted with a red box.

Publish the report to the Power BI service.

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-mobile-geofiltering>

## Question: 201

CertyIQ

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 by using the data from the selected column.

What should you do?

- Select the donut chart and set the column chart interaction to Filter.
- Select the column chart and set the donut chart interaction to Filter.
- Select the donut chart and set the column chart interaction to None.
- Select the column chart and set the donut chart interaction to None.

## Answer: B

### Explanation:

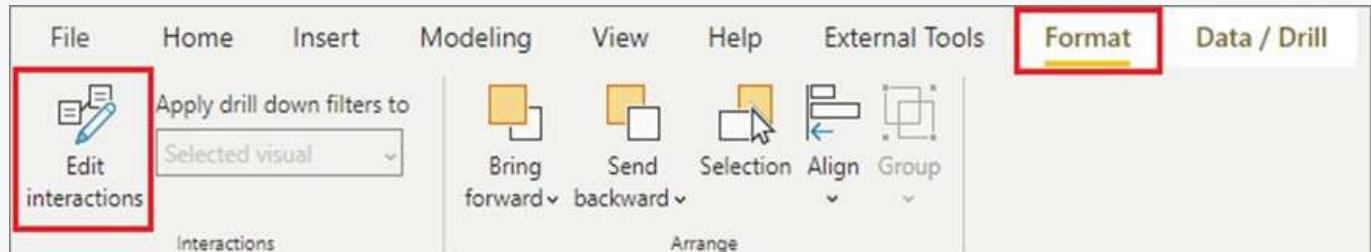
Filters remove all but the data you want to focus on.

Note: Enable the visual interaction controls.

1. Select a visualization to make it active.

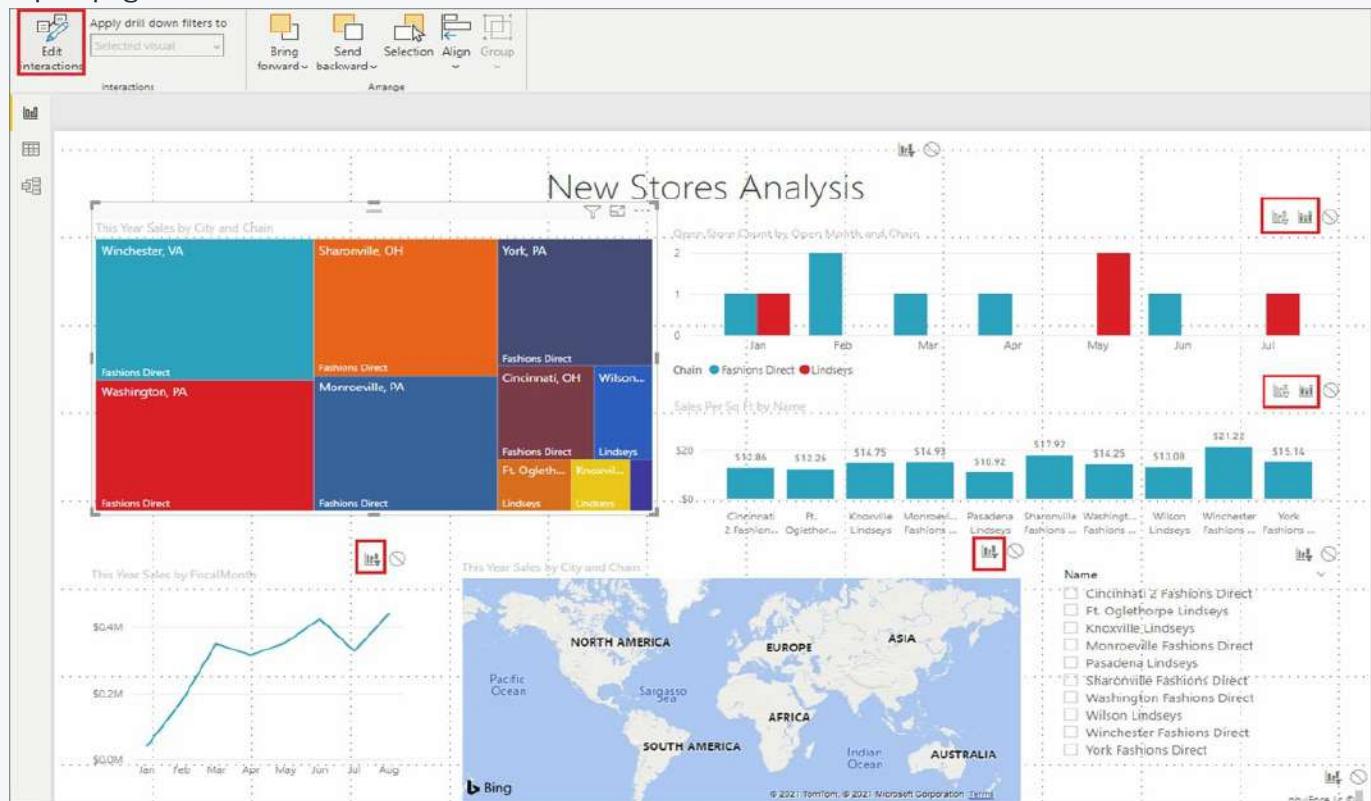
2. Display the Visual Interactions options.

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.



### Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions>

## Question: 202

CertyIQ

### HOTSPOT -

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

# Orders Summary

[View By City](#)

[View By State](#)

Sales USD by Store Location

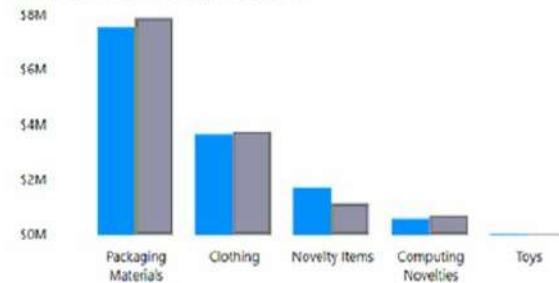


[Ask your data a question](#)

[Get Power BI help](#)

Sales USD for Q1 2016 and Prior Year

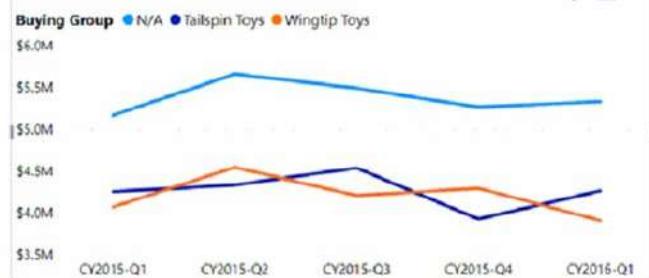
Total Before Tax      Same Quarter Last Year



Top 10 Sales Associates

Employee	Total Before Tax	Order Count
Amy Trell	\$17,329,344	7,276
Anthony Grosse	\$17,300,382	7,257
Archer Lamble	\$18,551,147	7,532
Hudson Hollinworth	\$17,716,354	7,400
Hudson Onslow	\$17,815,605	7,281
Jack Potter	\$17,621,145	7,387
Kayla Woodcock	\$18,107,095	7,474
Lily Code	\$17,612,640	7,268
Sophia Hinton	\$17,768,199	7,349
Taj Shand	\$17,812,365	7,371
<b>Total</b>	<b>\$177,634,276</b>	<b>73,595</b>

Quarterly Sales USD by Buying Group



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

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:

## 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	

Explanation:

Box 1: not affect

## **Box 2: cross-filter -**

The map has the cross-filter icon active.



"You can only cross-filter line charts, scatter charts, and maps. You can't cross-highlight them" So Cross-filter for the map

<https://learn.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions?tabs=powerbi-desktop>

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions>

**CertyIQ**

## **Question: 203**

You are creating a Power BI report by 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.

Which type of visual should you use?

- A. Q&A
- B. smart narrative
- C. key influencers
- D. decomposition tree

## **Answer: B**

### **Explanation:**

The smart narrative visualization helps you quickly summarize visuals and reports. It provides relevant innovative insights that you can customize.

Use smart narrative summaries in your reports to address key takeaways, to point out trends, and to edit the language and format for a specific audience. In

PowerPoint, instead of pasting a screenshot of your report's key takeaways, you can add narratives that are updated with every refresh. Your audience can use the summaries to understand the data, get to key points faster, and explain the data to others.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-smart-narrative>

**CertyIQ**

## **Question: 204**

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	<a href="https://raw.githubusercontent.com/ml">https://raw.githubusercontent.com/ml</a>
Spider plant	<a href="https://raw.githubusercontent.com/ml">https://raw.githubusercontent.com/ml</a>
philodendron	<a href="https://raw.githubusercontent.com/ml">https://raw.githubusercontent.com/ml</a>
ZZ plant	<a href="https://raw.githubusercontent.com/ml">https://raw.githubusercontent.com/ml</a>

You need to configure the visual to display the referenced image instead of the URL in the Plant Image column. What should you do?

- 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

#### Explanation:

Add images to your report -

1. Create a column with the URLs of the images. See Considerations later in this article for requirements.
2. Select that column. On the Column tools ribbon, for Data category, select Image URL.
3. Add the column to a table, matrix, slicer, or multi-row card.

Step 3: From powerbi.com, add a tile for Excel1 dataset to DashboardA.

In the Power BI service (app.powerbi.com), a dashboard contains tiles pinned from one or more datasets, so you can ask questions about any of the data contained in any of those datasets.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-images-tables>

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-tutorial-q-and-a>

#### Question: 205

CertyIQ

DRAG DROP -

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.

Select and Place:

Actions
From powerbi.com, pin a range from Excel1 to DashboardA.
From Excel, format the data in Excel1 as a table.
From powerbi.com, import Excel1 as a dataset.
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.

#### Answer Area



## Answer:

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.	

## Explanation:

Step 1: ["The solution must minimize development time", so:] **format the data as a table**

Step 2: **From powerbi.com, import Excel1 as a dataset.**

Step 3: **From powerbi.com, add a tile for the Excel1 dataset to DashboardA.**

## Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-from-excel-to-stunning-report>

CertyIQ

## Question: 206

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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 present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create a constant line and set the value to .5.

Does this meet the goal?

A. Yes

B. No

## Answer: B

## Explanation:

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

The median is the middle value or the 50th percentile of a data set.

## Reference:

[https://dash-intel.com/powerbi/statistical\\_functions\\_median.php](https://dash-intel.com/powerbi/statistical_functions_median.php)

CertyIQ

## Question: 207

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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 present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create an average line by using the Salary measure.

Does this meet the goal?

A. Yes

B. No

#### Answer: B

#### Explanation:

Average is not Median.

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

The median is the middle value or the 50th percentile of a data set.

Reference:

[https://dash-intel.com/powerbi/statistical\\_functions\\_median.php](https://dash-intel.com/powerbi/statistical_functions_median.php)

CertyIQ

#### Question: 208

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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 present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

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

Does this meet the goal?

A. Yes

B. No

#### Answer: A

#### Explanation:

The median is the middle value or the 50th percentile of a data set.

Reference:

[https://dash-intel.com/powerbi/statistical\\_functions\\_median.php](https://dash-intel.com/powerbi/statistical_functions_median.php)

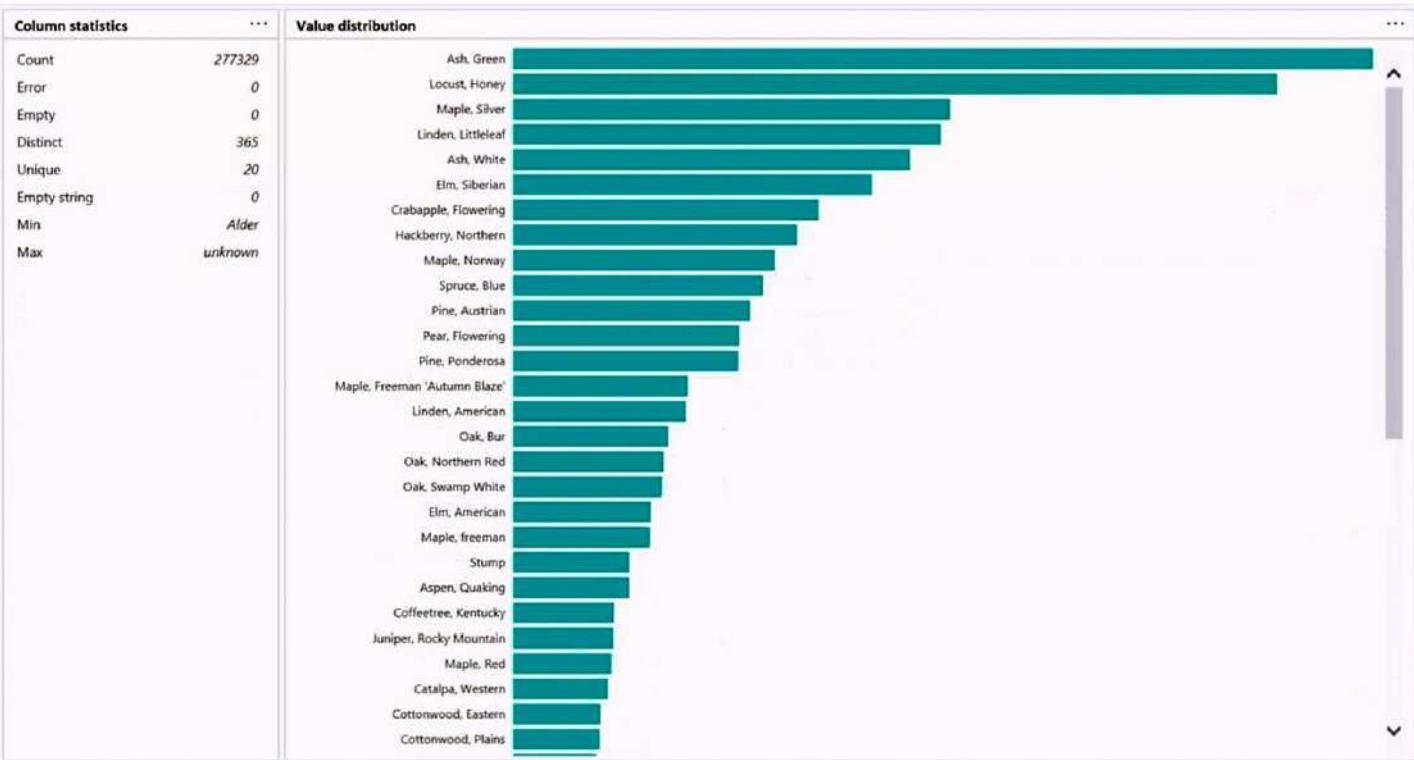
CertyIQ

#### Question: 209

HOTSPOT -

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:**

## 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

### Explanation:

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

There are 20 unique values.

Box 2: **Elm, American** -

Elm, American is below Peer, flowering species in the graphic.

“Distinct” means number of different values regardless how many times it appears in the dataset. A ‘name’ appears in the list multiple times is counted as 1 distinct count.

Whereas, the “Unique” value is total number of values that only appear once.

Distinct mean : count all the values as 1, even if there was more than one.

Unique mean : count only the value that are not repeated in the particular column

## Question: 210

CertyIQ

You have a Power BI report hosted on powerbi.com that displays expenses by department for department managers.

The report contains a line chart that shows expenses by month.

You need to enable users to choose between viewing the report as a line chart or a column chart. The solution must minimize development and maintenance effort.

What should you do?

- A. Enable report readers to personalize visuals.
- B. Create a separate report page for users to view the column chart.
- C. Add a column chart, a bookmark, and a button for users to choose a visual.
- D. Create a mobile report that contains a column chart.

### Answer: A

### Explanation:

Also C is correct but I guess the key is 'The solution must minimize development' so A should be the correct one

## Steps:

Let users personalize visuals in a report

Enable personalization in a report

You can enable the feature either in Power BI Desktop or the Power BI service. You can also enable it in embedded reports.

To enable the feature in the Power BI ([powerbi.com](https://powerbi.com)) service, go to Settings for your report.

All    **Content**    Datasets + dataflows

	Name	Type
	Customer Profitability Sample	Dashboard
	Customer Profitability Sample	Report
	Customer Profitability Sample	Analyze in Excel
	Opportunity Analysis Sample	Delete
	Opportunity Analysis Sample	Quick insights
	Opportunity Analysis Sample	Save a copy
	Procurement Analysis Sample	<b>Settings</b>
	Procurement Analysis Sample	View usage metrics report
	Retail Analysis Sample	View lineage
	Retail Analysis Sample	Create paginated report
	Retail Analysis Sample	Manage permissions

Turn on Personalize visuals > Save.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-personalize-visuals?tabs=powerbi-service#enable-personalization-in-a-report>

You have two Power BI reports named ReportA and ReportB that each uses a distinct color palette. You are creating a Power BI dashboard that will include two visuals from each report. You need to use a consistent dark theme for the dashboard. The solution must preserve the original colors of the reports. Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Upload a snapshot.
- B. For the browser, set the color preference to dark mode.
- C. When pinning visuals to the dashboard, select Use destination theme.
- D. Select the dark dashboard theme.
- E. Turn on tile flow.

**Answer: CD****Explanation:**

D: With dashboard themes you can apply a color theme to your entire dashboard, such as corporate colors, seasonal coloring, or any other color theme you might want to apply. When you apply a dashboard theme, all visuals on your dashboard use the colors from your selected theme.

In the dashboard pane that appears, select one of the pre-built themes. In the example below, we've selected Dark.

The screenshot shows the 'Dashboard theme' dialog box. At the top, it says 'Sales and Marketing Sample'. Below that are two buttons: 'Upload JSON theme' with an upward arrow icon and 'Download JSON theme' with a downward arrow icon. A section titled 'Theme' contains a list of options: 'Light' (highlighted in blue), 'Dark', 'Color-blind friendly', and 'Custom'. At the bottom right are 'Save' and 'Cancel' buttons.

C: Reports and dashboards with different themes

If your report uses a different theme from the dashboard theme, in most cases you can control whether the visual retains the current report theme or uses the dashboard theme.

\* Try re-pinning the tile and selecting Use dashboard theme.

**Tile Theming**

Use destination theme

Keep current theme

### Pin to dashboard

Select an existing dashboard or create a new one.

Where would you like to pin to?

Existing dashboard

New dashboard

Sales and Marketing Sample

**Pin** **Cancel**

Reference:  
<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-themes>

### Question: 212

CertyIQ

#### HOTSPOT -

You have a dataset that contains revenue data from the past year.

You need to use anomaly detection in Power BI to show anomalies in the dataset.

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

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

Chart type:

- Line
- Pie
- Treemap

Chart configuration:

- Select the Show value as option
- Enable Cross-report drill-through
- Populate the axis with a date field

Answer:

## Answer Area

Chart type:

Line
Pie
Treemap

Chart configuration:

Select the Show value as option
Enable Cross-report drill-through
Populate the axis with a date field

### Explanation:

#### Box 1: Line -

Anomaly detection is only supported for line chart visuals containing time series data in the Axis field.

#### Box 2: Populate the axis with a date field

Incorrect:

- \* Anomaly Explanations doesn't work with 'Show Value As' options.
- \* Drilling down to go to the next level in the hierarchy isn't supported.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-anomaly-detection>

## Question: 213

CertyIQ

You have a line chart that shows the number of employees in a department over time. You need to see the total salary costs of the employees when you hover over a data point. What should you do?

- A. Add salary to the drillthrough fields.
- B. Add salary to the visual filters.
- C. Add salary to the tooltips.

### Answer: C

#### Explanation:

Customize tooltips with aggregation or quick measures

You can customize a tooltip by selecting an aggregation function.

Select the arrow beside the field in the Tooltips bucket. Then, select from the available options.

The screenshot shows the Power BI Fields pane. At the top, there's a search bar with a magnifying glass icon and the word "Search". Below it, there are two sections: "Sales" and "Stores". Under "Sales", several measures are listed with checkboxes: "DiscountAmount" (checked), "DiscountQuantity" (unchecked), "ReturnAmount" (unchecked), "ReturnQuantity" (unchecked), "SalesAmount" (unchecked), "SalesQuantity" (checked), "TotalCost" (unchecked), "UnitCost" (checked), "UnitPrice" (unchecked), and "Units Sold" (unchecked). A context menu is open over the "Variance" measure under "Sales". The menu items are: Remove field, Rename, Move (with submenu Move and Move to), Sum, Average, Minimum, Maximum, Count (Distinct), Count, Standard deviation, Variance (which is highlighted with a red border), Median, Show value as (with submenu), and New quick measure. Below the menu, there are two dropdowns: "SalesQuantity" and "UnitCost", each with a close button (X).

Note: Tooltips are an elegant way of providing more contextual information and detail to data points on a visual. You can customize tooltips in Power BI Desktop and in the Power BI service.

When a visualization is created, the default tooltip displays the data point's value and category.

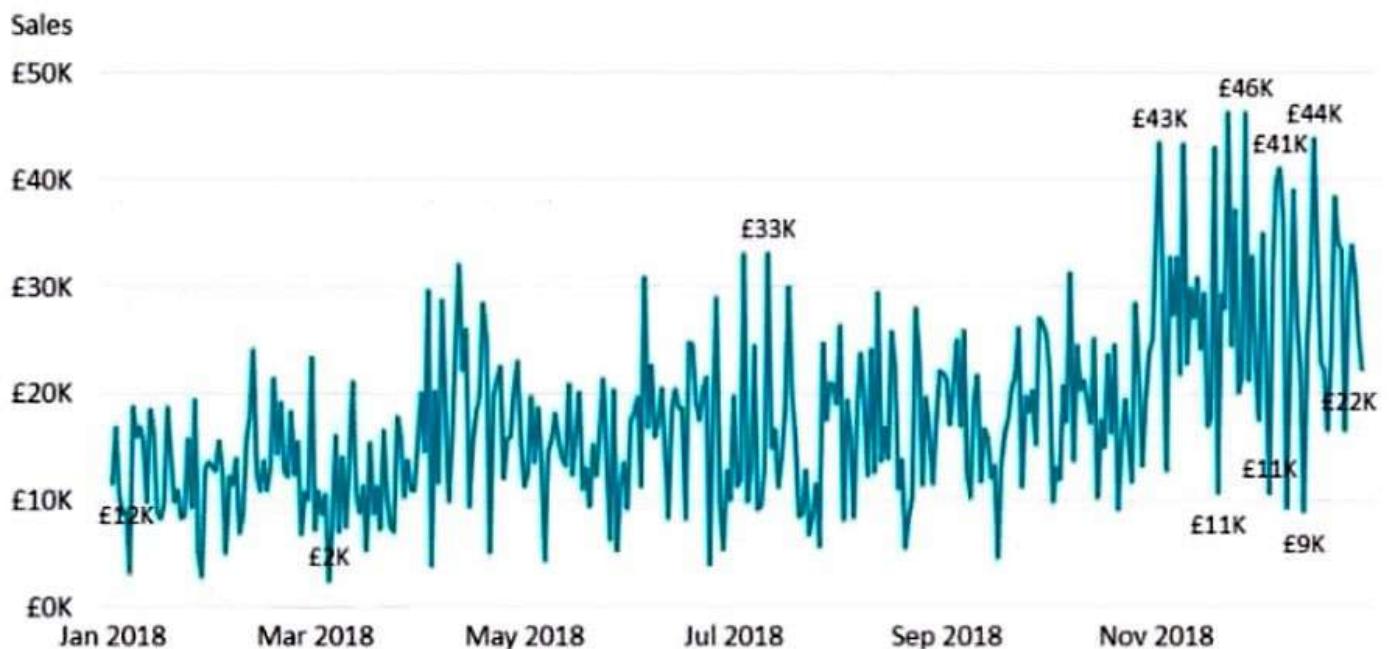
Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-custom-tooltips>

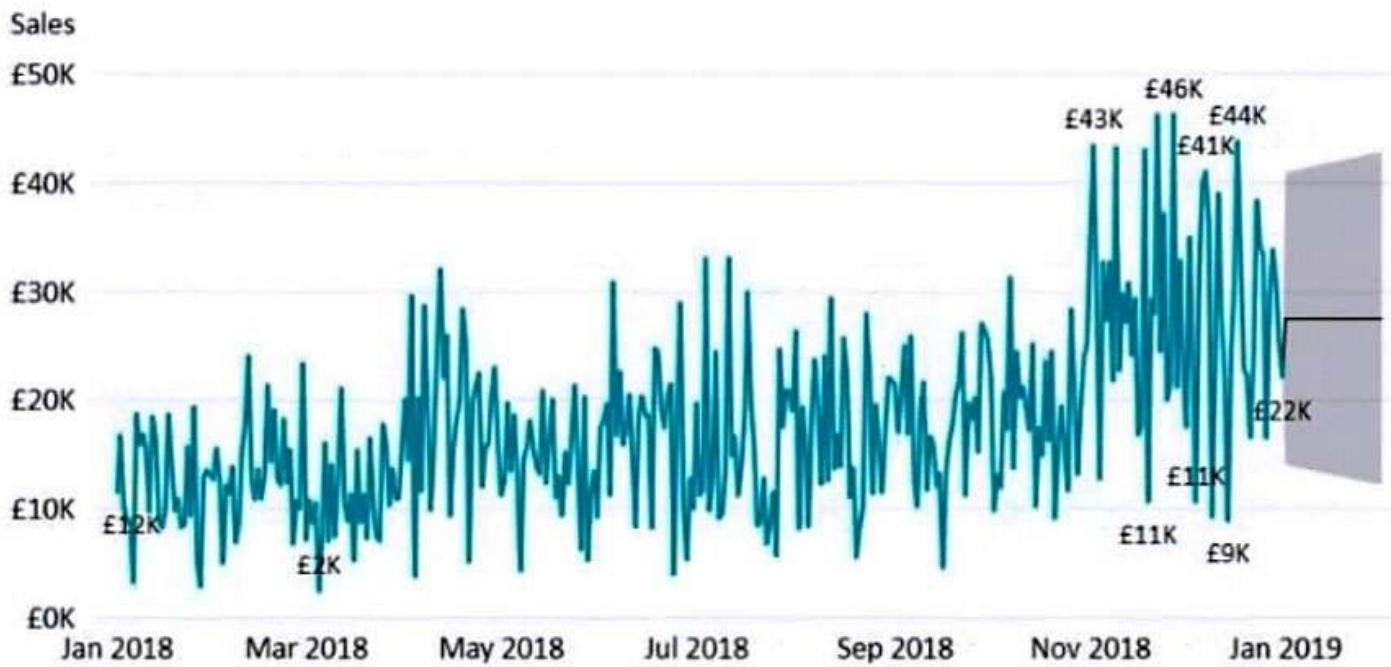
#### Question: 214

CertyIQ

You have the visual shown in the Original exhibit. (Click the Original tab.)



You need to configure the visual as shown in the Modified exhibit. (Click the Modified tab.)



What should you add to the visual?

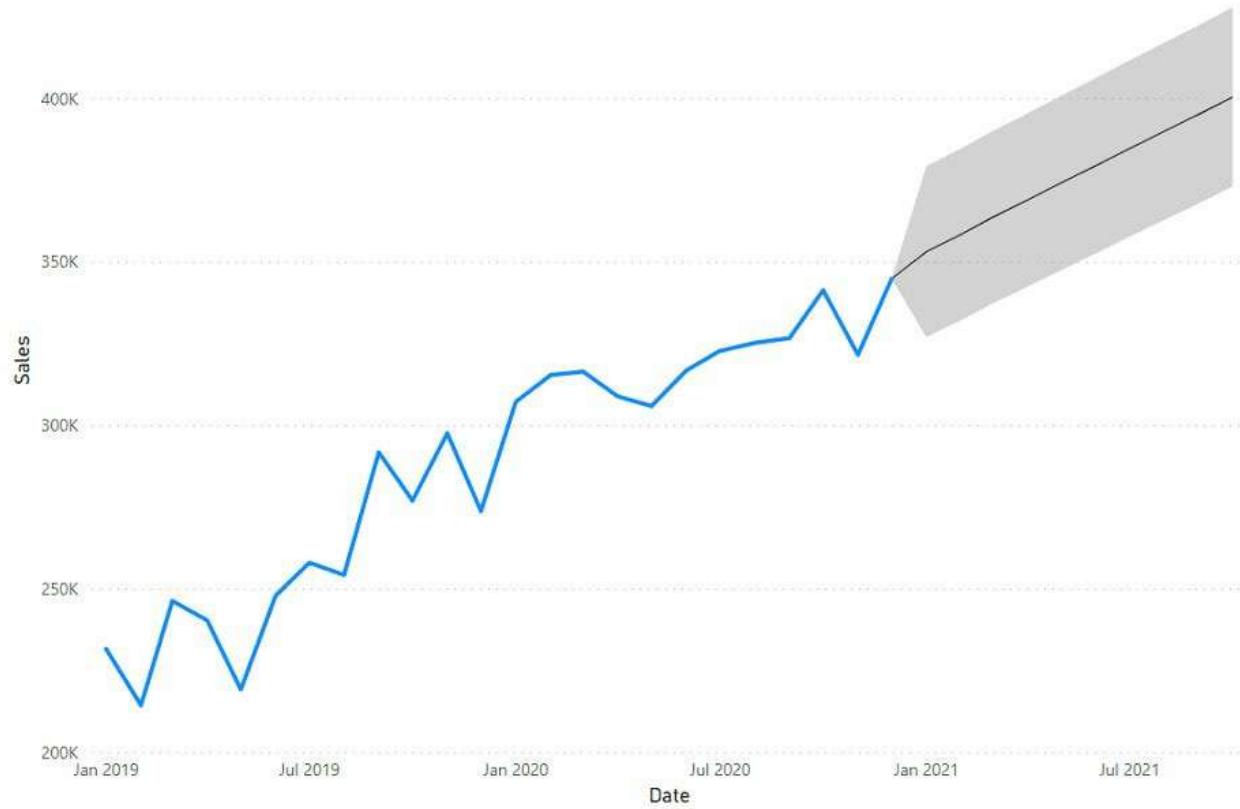
- A. a measure
- B. an Average line
- C. a trendline
- D. a forecast

**Answer: D**

**Explanation:**

For example, here's how the current forecast looks like:

### Sales by Date



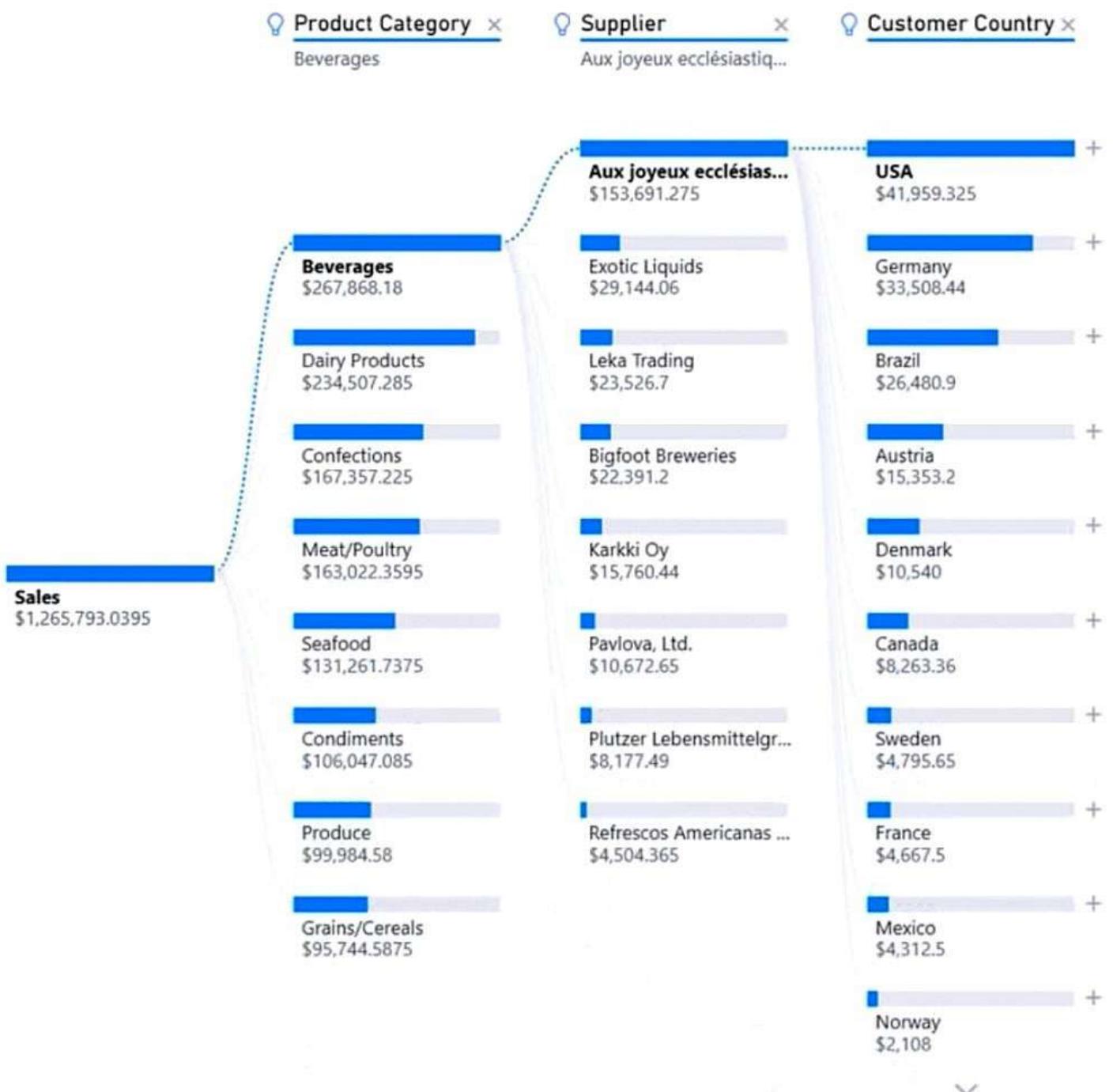
Reference:

<https://spreadsheets.com/power-bi-forecasting/#intro>

### Question: 215

CertyIQ

You need to create a visual that enables the adhoc exploration of data as shown in the following exhibit.



Which type of visual should you use?

- A. smart narrative
- B. decomposition tree
- C. Q&A
- D. key influencers

#### Answer: B

#### Explanation:

The decomposition tree visual in Power BI lets you visualize data across multiple dimensions. It automatically aggregates data and enables drilling down into your dimensions in any order. It is also an artificial intelligence (AI) visualization, so you can ask it to find the next dimension to drill down into based on certain criteria.

This makes it a valuable tool for ad hoc exploration and conducting root cause analysis.

Example:

## Root Cause Analysis



Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-decomposition-tree>

## Question: 216

CertyIQ

Your company has employees in 10 states.

The company recently decided to associate each state to one of the following three regions: East, West, and North. You have a data model that contains employee information by state. The model does NOT include region information.

You have a report that shows the employees by state.

You need to view the employees by region as quickly as possible.

What should you do?

- A. Create a new aggregation that summarizes by state.
- B. Create a new aggregation that summarizes by employee.
- C. Create a new group on the state column and set the Group type to List.
- D. Create a new group on the state column and set the Group type to Bin.

## Answer: C

### Explanation:

In Power BI Desktop, you can group data points to help you more clearly view, analyze, and explore data and trends in your visuals.

Example:

## Groups

The screenshot shows the 'Groups' dialog box in Power BI. At the top, there are filter settings: 'Name' set to 'Category (groups)', 'Field' set to 'Category', and 'Group type' set to 'List'. Below these are two main sections: 'Ungrouped values' on the left and 'Groups and members' on the right.

**Ungrouped values:**

- 010-Womens
- 020-Mens
- 030-Kids
- 040-Junior
- 050-Shoes
- 090-Home
- 100-Groceries
- 41 - L SPECIAL SIZES
- 50 - JUNIOR
- 64 - PROMO

**Groups and members:**

- ▶ 060-Intimate & 070-Hosiery & 080-Accessories
- ◀ Other
  - Contains all ungrouped values

At the bottom, there are buttons for 'Group' (disabled), 'Ungroup', and 'OK' (highlighted in yellow). A checkbox labeled 'Include Other group' is checked. There is also a 'Cancel' button.

Incorrect:

Not D: You can also define the bin size to put values into equally sized groups that better enable you to visualize data in ways that are meaningful. This action is often called binning.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-grouping-and-binning>

### Question: 217

CertyIQ

You have a collection of reports for the HR department of your company. You need to create a visualization for the HR department that shows historical employee counts and predicts trends during the next six months.

Which type of visualization should you use?

- A. ribbon chart
- B. scatter chart
- C. line chart
- D. key influencers

### Answer: C

#### Explanation:

The best data for forecasting is time series data or uniformly increasing whole numbers. The line chart has to have only one line.

Reference:

<https://powerbi.microsoft.com/fr-ca/blog/introducing-new-forecasting-capabilities-in-power-view-for-office-365/>

**Question: 218****CertyIQ**

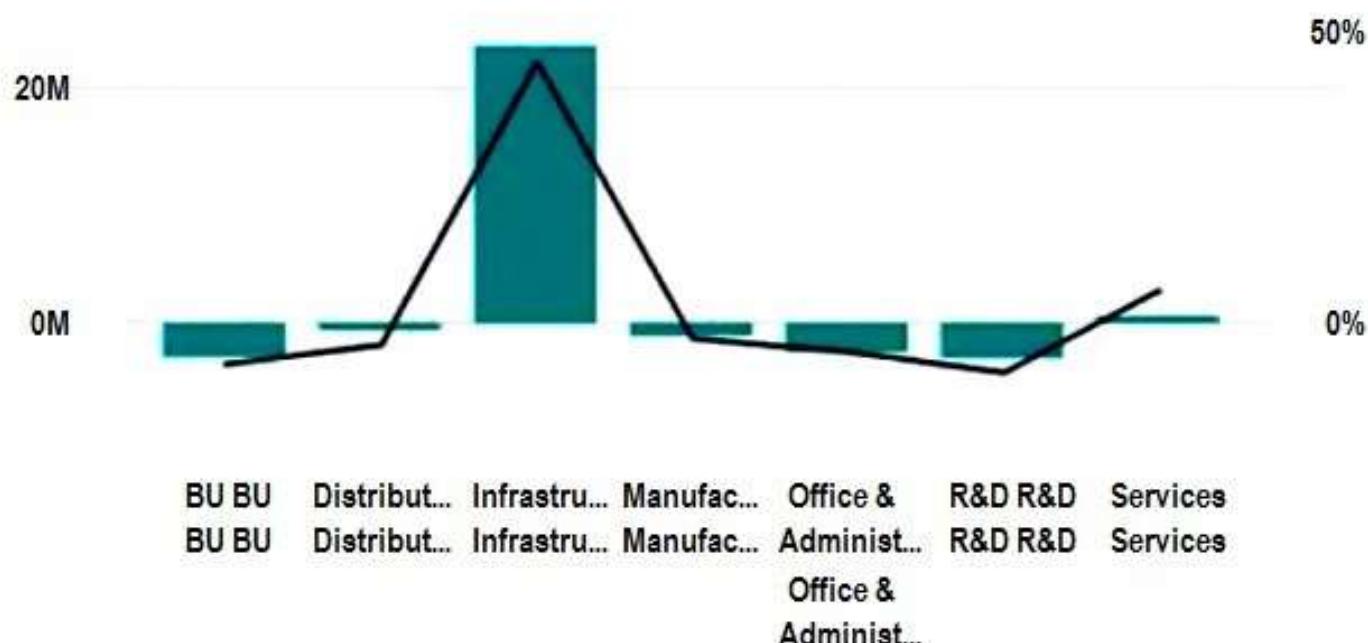
You have a Microsoft Power BI dashboard. The report used to create the dashboard uses an imported dataset from a Microsoft SQL Server data source.

The dashboard is shown in the exhibit. (Click the Exhibit tab.)

## Variance to Plan, Variance to Plan %

BY BUSINESS AREA • REFRESHED 12:03:06 PM

● Var Plan ● Var Plan %

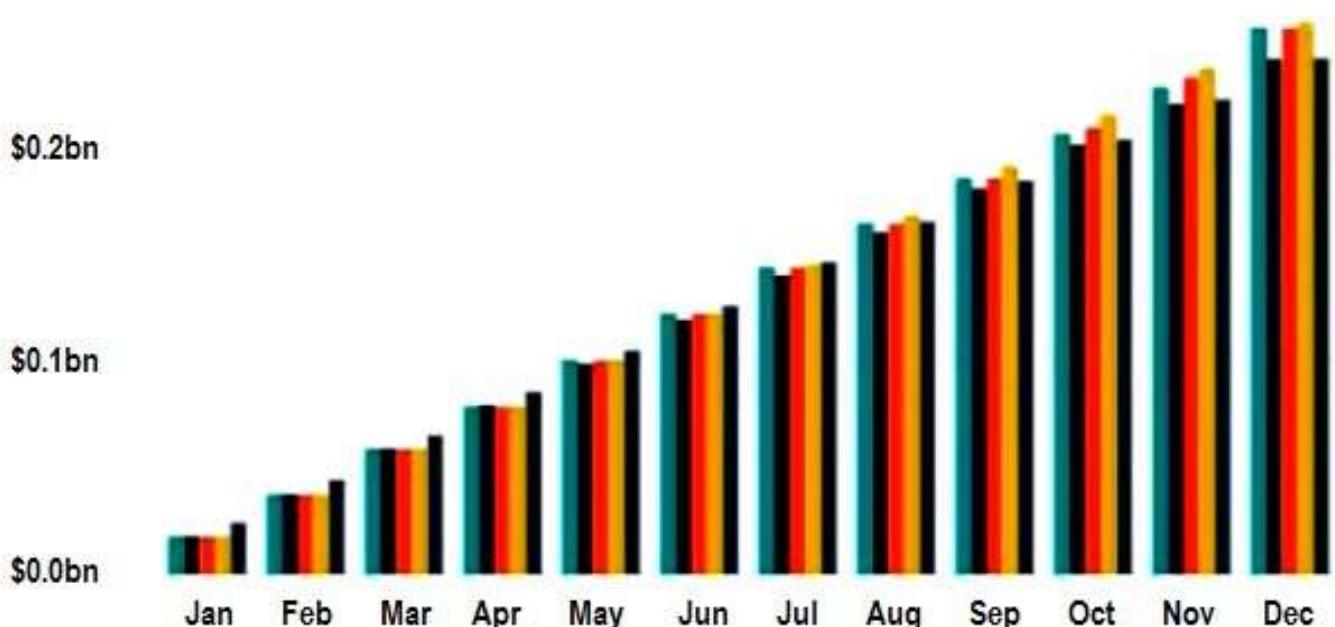


## Amount

BY MONTH, SCENARIO

Scenario ● Actual ● LE1 ● LE2 ● LE3 ● Plan

\$0.3bn



What occurred at 12:03:06 PM?

- A. A new transaction was added to the data source.
- B. The dashboard tile cache refreshed.
- C. A user added a comment to a tile.

D. A user pressed F5.

**Answer: B**

**Explanation:**

A tile is a report visual pinned to a dashboard, and dashboard tile refreshes happen about every hour so that the tiles show recent results. You can change the schedule in the dataset settings, as in the screenshot below, or force a dashboard update manually by using the Refresh now option.

If you press F5 or hit the refresh button, the dashboard charts gets updated.

Note: Power BI enables you to go from data to insight to action quickly, yet you must make sure the data in your Power BI reports and dashboards is recent.

Knowing how to refresh the data is often critical in delivering accurate results.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-data>

**Question: 219**

CertyIQ

**HOTSPOT -**

You need to create a Power BI report. The first page of the report must contain the following two views:

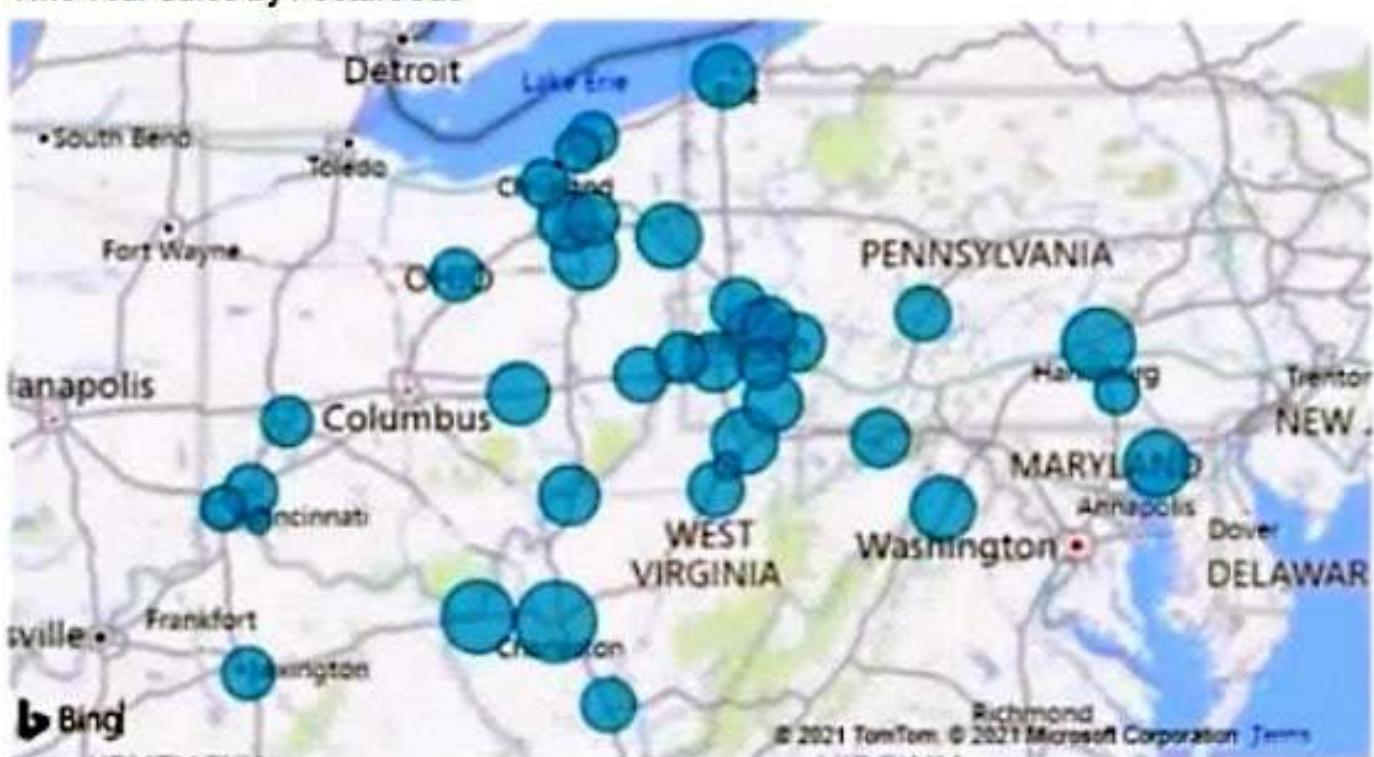
- ⇒ Sales By Postal Code
- ⇒ Sales by Month

Both views must display a slicer to select a value for a field named Chain.

The Sales By Postal Code view must display a map visual as shown in the following exhibit.

Sales By Postal Code

Sales By Month

**This Year Sales by PostalCode**

The Sales By Month view must display a column chart visual as shown in the following exhibit.

Chain

Fashions Direct

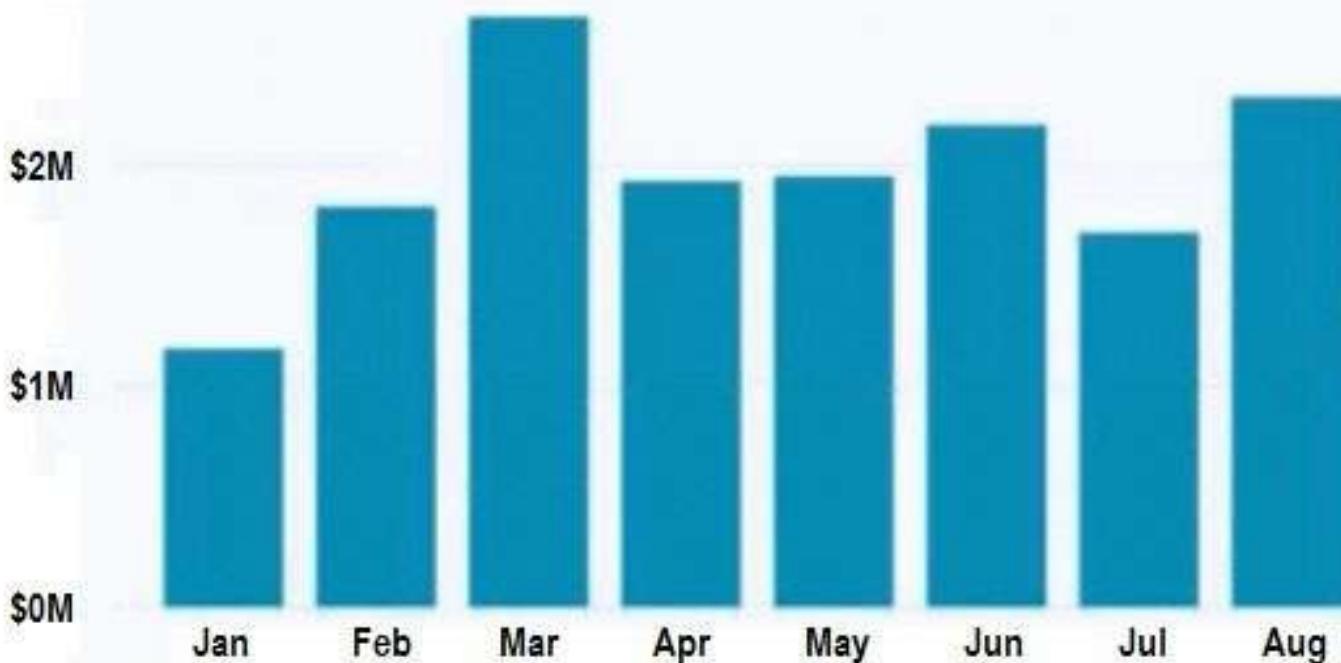
Lindseys

Sales By Postal Code

Sales By Month

This Year Sales by FiscalMonth

\$3M



Users must be able to switch between the views by using buttons on the report page. The selected Chain field must be maintained when switching between views.

What is the minimum number of bookmarks required, and which property should you apply to each bookmark? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## **Answer Area**

Minimum number of bookmarks:

1
2
3
4

Property:

Data
Display
Current page

Answer:

## Answer Area

Minimum number of bookmarks:

1
2
3
4

Property:

Data
Display
Current page

### Explanation:

Box 1: 2 -

One for each visual.

Note: When you edit a report in Power BI Desktop and the Power BI service, you can add report bookmarks to capture the current state of a report page.

Bookmarks save the current filters and slicers, cross-highlighted visuals, sort order, and so on. When others view your report, they can get back to that exact state by selecting your saved bookmark.

Box 2: Display -

Users must be able to switch between the views by using buttons on the report page. The selected Chain field must be maintained when switching between views.

You can select whether each bookmark will apply Data properties, such as filters and slicers; Display properties, such as spotlight and its visibility; and Current page changes, which present the page that was visible when the bookmark was added. These capabilities are useful when you use bookmarks to switch between report views or selections of visuals, in which case you'd likely want to turn off data properties, so that filters aren't reset when users switch views by selecting a bookmark.

Note: When you create a bookmark, the following elements are saved with the bookmark:

The current page -

Filters -

Slicers, including slicer type (for example, dropdown or list) and slicer state

Visual selection state (such as cross-highlight filters)

Sort order -

Drill location -

Visibility of an object (by using the Selection pane)

The focus or Spotlight mode of any visible object

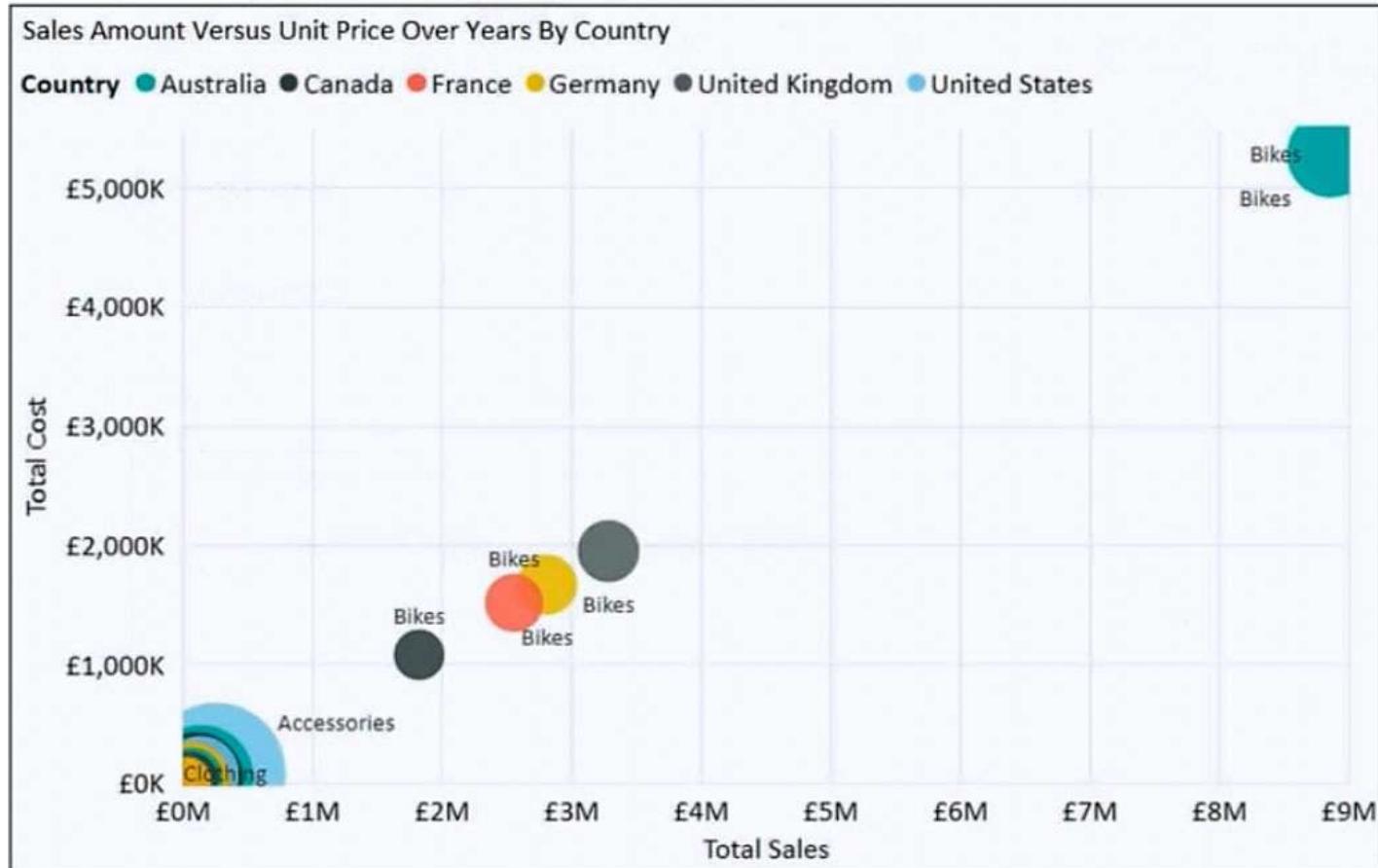
Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-bookmarks>

CertyIQ

## Question: 220

You have the visual shown in the exhibit. (Click the Exhibit tab.)



You need to show the relationship between Total Cost and Total Sales over time.

What should you do?

- A. Add a play axis.
- B. From the Analytics pane, add an Average line.
- C. Add a slicer for the year.
- D. Create a DAX measure that calculates year-over-year growth.

## Answer: A

### Explanation:

When to use a slicer -

Slicers are a great choice when you want to:

Display commonly used or important filters on the report canvas for easier access.

Make it easier to see the current filtered state without having to open a drop-down list.

Filter by columns that are unneeded and hidden in the data tables.

Create more focused reports by putting slicers next to important visuals.

Note: Suppose you want your report readers to be able to look at overall sales metrics, but also highlight performance for individual district managers and different time frames. You could create separate reports or comparative charts. You could add filters in the Filters pane. Or you could use slicers. Slicers are another way of filtering. They narrow the portion of the dataset that is shown in the other report visualizations.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-slicers>

### Question: 221

CertyIQ

HOTSPOT -

You have the Power BI dashboard shown in the Dashboard exhibit. (Click the Dashboard tab.)

Ask a question about your data

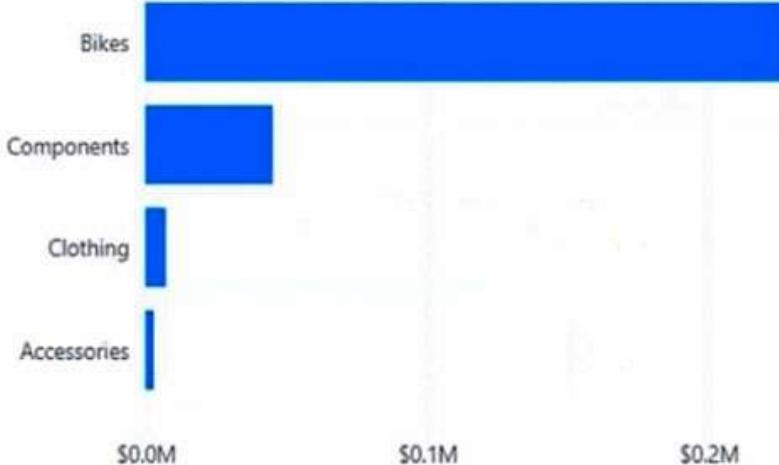
Total Sales

\$282,711

Total Quantity

915

Total Sales  
BY PARENT CATEGORY



SubTotal

BY STATEPROVINCE • REFRESHED: NOW



You need to ensure that when users view the dashboard on a mobile device, the dashboard appears as shown in the Mobile exhibit. (Click the Mobile tab.)

## AWLT DQ.pbix

Total Sales

\$282.711

Total Quantity

915

Total Sales

BY PARENT CATEGORY



SubTotal

BY STATEPROVINCE • REFRESHED: NOW

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## **Answer Area**

Update the layout in the:

- Dashboard mobile layout
- Dashboard web layout
- Report mobile layout

Resize and move:

- The SubTotal map tile
- The Total Sales and Total Quantity tiles
- The Total Sales by Parent Category tile

**Answer:**

## **Answer Area**

Update the layout in the:

- Dashboard mobile layout
- Dashboard web layout
- Report mobile layout

Resize and move:

- The SubTotal map tile
- The Total Sales and Total Quantity tiles
- The Total Sales by Parent Category tile

**Explanation:**

Box 1: Update Dashboard Mobile Layout

Box 2: Resize and move total sales and total quantity

Dashboard mobile feature already fits the tiles in the view, and when recreating same scenario you only need to work on the 2 cards

If you use Report Mobile View feature from Power BI desktop, you will have an empty canvas and will need to work on all tiles

Reference:

**Question: 222**

You are building a Power BI report to analyze customer segments.

You need to identify customer segments dynamically based on the Bounce Rate across dimensions such as source, geography, and demographics. The solution must minimize analysis effort.

Which type of visualization should you use?

- A. decomposition tree
- B. funnel chart
- C. Q&A
- D. key influencers

**Answer: A**

**Explanation:**

The decomposition tree visual in Power BI lets you visualize data across multiple dimensions. It automatically aggregates data and enables drilling down into your dimensions in any order. It is also an artificial intelligence (AI) visualization, so you can ask it to find the next dimension to drill down into based on certain criteria.

This makes it a valuable tool for ad hoc exploration and conducting root cause analysis.

The decomposition tree visual in Power BI lets you visualize data across multiple dimensions. It automatically aggregates data and enables drilling down into your dimensions in any order.

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

\*Key influencers does not visualize data across dimensions\*

**Reference:**

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-decomposition-tree>

**Question: 223**

You have a table that contains sales data and approximately 1,000 rows.

You need to identify outliers in the table.

Which type of visualization should you use?

- A. area chart
- B. scatter plot
- C. pie chart
- D. donut chart

**Answer: B**

**Explanation:**

Outlier Detection in Power BI using Funnel Plot, which is a scatter plot.

Outliers are those data points that lie outside the overall pattern of distribution & the easiest way to detect outliers is through graphs. Box plots, Scatter plots can help detect them easily.

Reference:

<https://towardsdatascience.com>this-article-is-about-identifying-outliers-through-funnel-plots-using-the-microsoft-power-bi-d7ad16ac9ccc>

CertyIQ

### Question: 224

You have a report that contains three pages. One of the pages contains a KPI visualization.

You need to filter all the visualizations in the report except for the KPI visualization.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Edit the interactions of the KPI visualization.
- B. Add the same slicer to each page and configure Sync slicers.
- C. Edit the interactions of the slicer that is on the same page as the KPI visualization.
- D. Configure a page-level filter.
- E. Configure a report-level filter.

### Answer: BC

#### Explanation:

Slicers are another way of filtering. They narrow the portion of the dataset that is shown in the other report visualizations.

Control which page visuals are affected by slicers

Example: Use visual interactions to keep slicer selections from filtering this chart.

1. Go to the Overview page of the report, and then select the DM slicer you previously created.
2. On the Power BI Desktop menu, select the Format menu under Visual Tools, and then select Edit interactions.
3. Filter controls, each with a Filter and a None option, appear above all the visuals on the page. Initially, the Filter option is preselected on all the controls.
4. Select the None option in the filter control above the Total Sales Variance by FiscalMonth and District Manager chart to stop the DM slicer from filtering it.

Incorrect:

Not D: A page-level filter is used to filter an entire page.

Not E: A report-level filter is used to filter an entire report.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-report-add-filter>

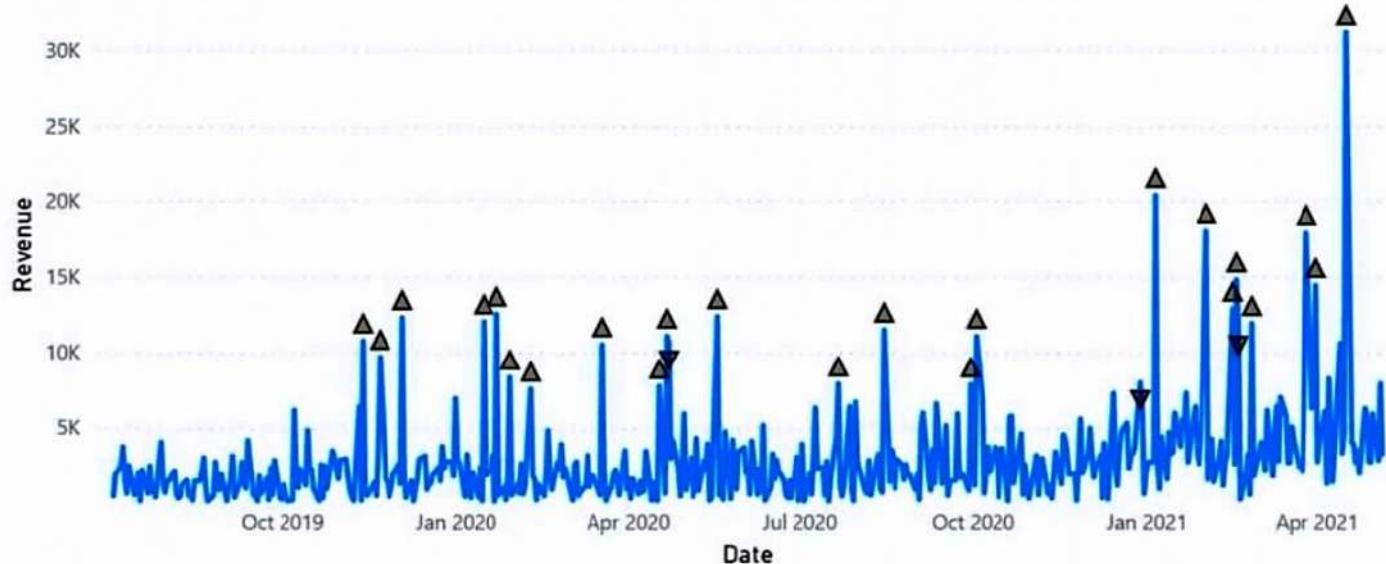
CertyIQ

### Question: 225

HOTSPOT -

You have a Power BI visual that uses indicators to show values that are out of range as shown in the following exhibit.

## Revenue by Date



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

The visual type is [answer choice] chart.

- a line
- a line and clustered column
- an area

The visual indicators that show values out of range are created by using [answer choice].

- a custom visual
- a trendline
- anomaly detection
- line chart markers

### Answer:

#### Answer Area

The visual type is [answer choice] chart.

- a line
- a line and clustered column
- an area

The visual indicators that show values out of range are created by using [answer choice].

- a custom visual
- a trendline
- anomaly detection
- line chart markers

### Explanation:

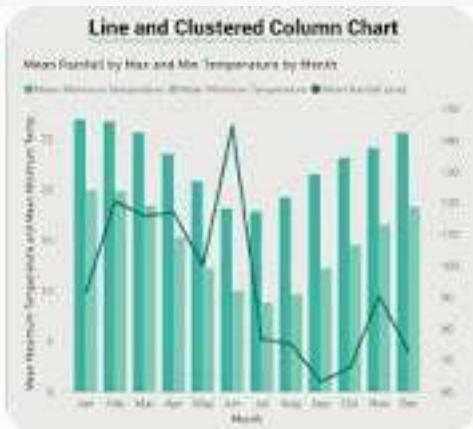
Box 1: a line -

Incorrect:

\* not line and clustered column

The Line and Clustered Column Chart is a combo charts that combines the Line chart and Column chart together in one visual. By combining these two visuals together, you can make a very quick comparison

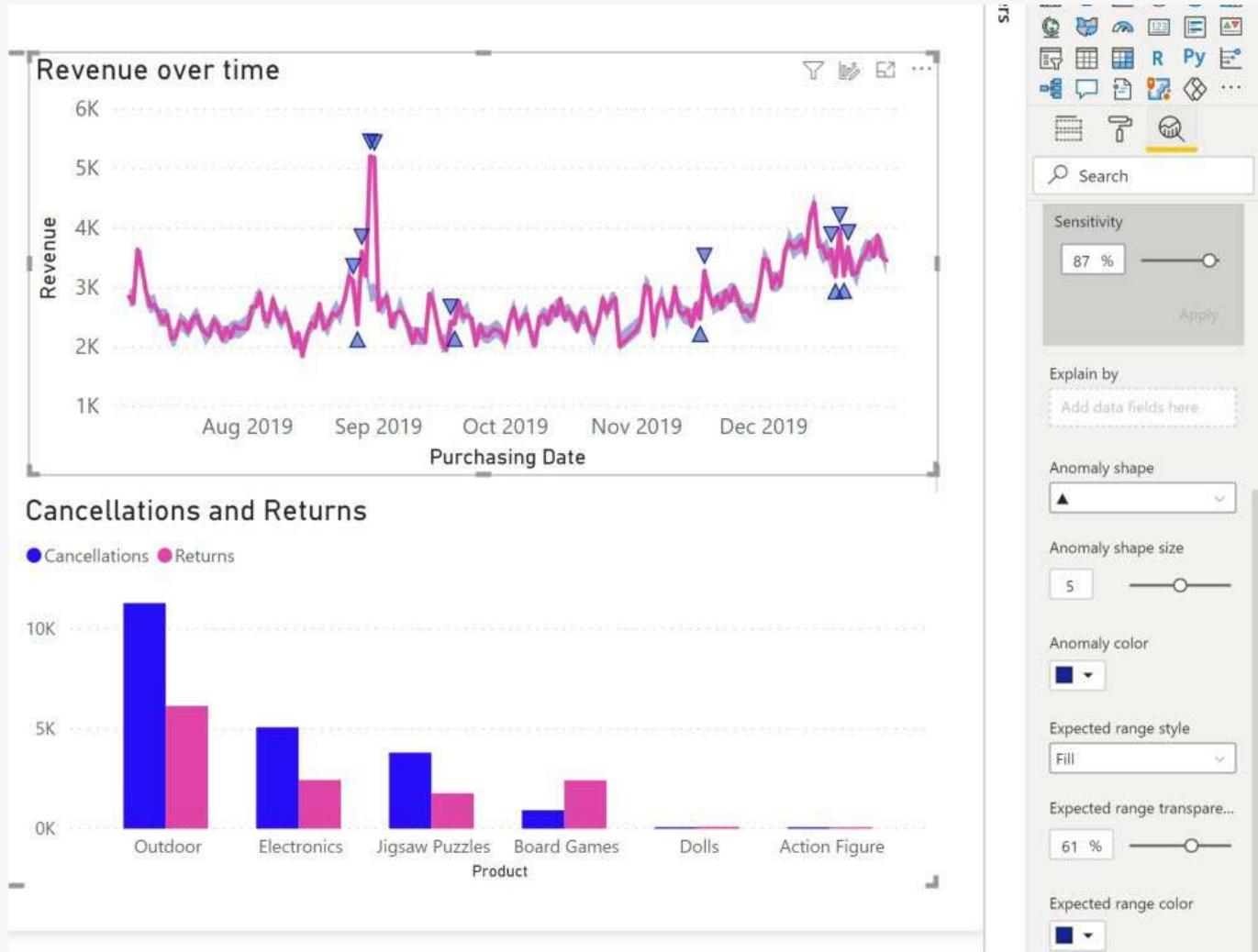
between two sets of measures.



#### Box 2: anomaly detection -

Anomaly detection helps you enhance your line charts by automatically detecting anomalies in your time series data. It also provides explanations for the anomalies to help with root cause analysis. With just a couple of clicks, you can easily find insights without slicing and dicing the data.

Example:



Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-anomaly-detection>

**Question: 226**

**CertyIQ**

You are creating a Power BI report to analyze consumer purchasing patterns from a table named Transactions. The Transactions table contains a numeric field named Spend.

You need to include a visual that identifies which fields have the greatest impact on Spend.

Which type of visual should you use?

- A. Q&A
- B. smart narrative
- C. decomposition tree
- D. key influencers

**Answer: D**

**Explanation:**

The key influencers visual helps you understand the factors that drive a metric you're interested in. It analyzes your data, ranks the factors that matter, and displays them as key influencers. For example, suppose you want to figure out what influences employee turnover, which is also known as churn. One factor might be employment contract length, and another factor might be commute time.

When to use key influencers -

The key influencers visual is a great choice if you want to:

See which factors affect the metric being analyzed.

Contrast the relative importance of these factors. For example, do short-term contracts affect churn more than long-term contracts?

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

**Question: 227**

**CertyIQ**

HOTSPOT -

You are creating a line chart in a Power BI report as shown in the following exhibit.

**Prior Year Employee Count By Month**



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

The dashed line representing the Year Average Employee Count was created by using [answer choice].

a trend line
a secondary axis
an average reference line
two measures in the Values bucket

To enable users to drill down to weeks or days, add the Weeks and Days field to the [answer choice] bucket.

Axis
Values
Legend
Secondary values

## Answer:

### Answer Area

The dashed line representing the Year Average Employee Count was created by using [answer choice].

a trend line
a secondary axis
an average reference line
two measures in the Values bucket

To enable users to drill down to weeks or days, add the Weeks and Days field to the [answer choice] bucket.

Axis
Values
Legend
Secondary values

## Explanation:

### Box 1: an average reference line

With the Analytics pane in Power BI Desktop, you can add dynamic reference lines to visuals, and provide focus for important trends or insights.

<https://learn.microsoft.com/en-us/power-bi/transform-model/desktop-analytics-pane>

### Box 2: Axis

The question is about drill-down and not drill-through.

<https://radacad.com/drill-down-and-up-in-power-bi-explained>

"For example, in the visual below I have Sales Amount as the Value of the column chart, and the Date field (Order Date) as the X-Axis.

Date hierarchy in a Power BI visual

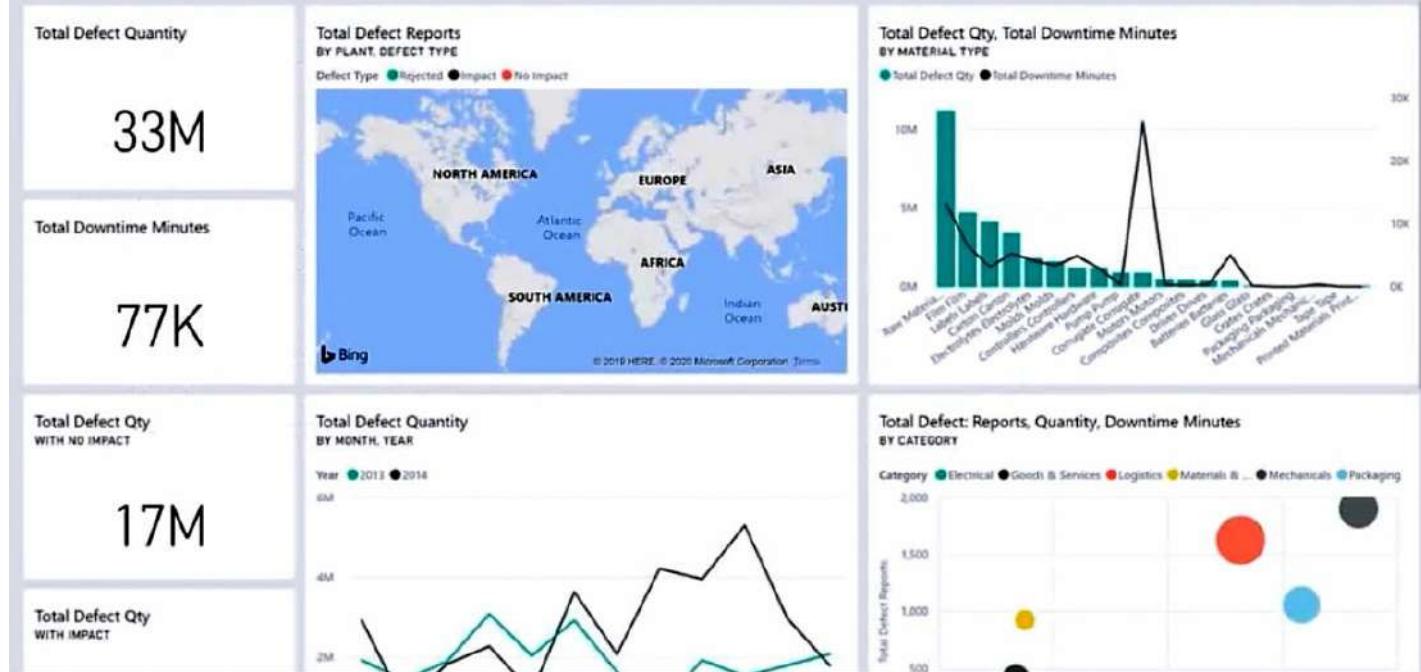
This will lead to seeing drill down/up buttons on the top of the visual (or at the bottom of it if the visual is touched at the very top of the report)"

### Reference:

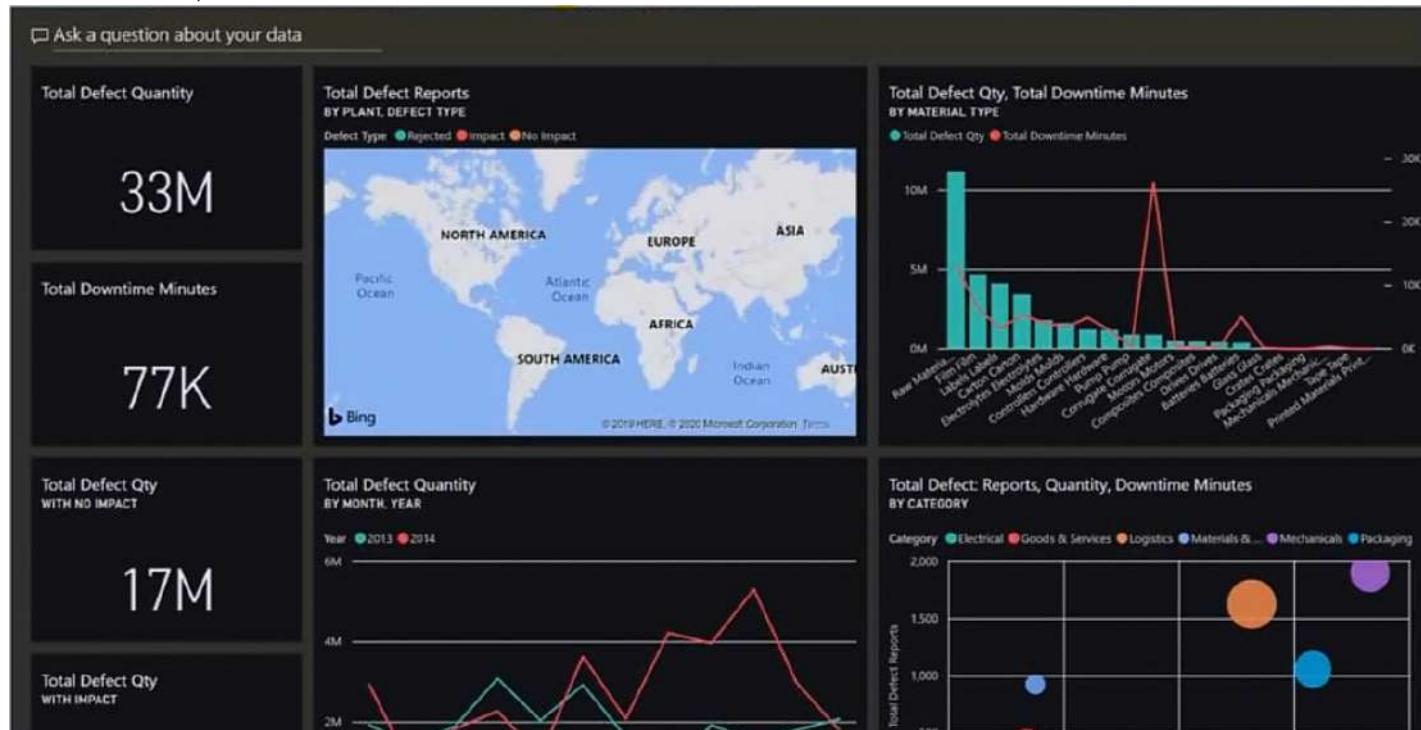
<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-analytics-pane>

You have a dashboard that contains tiles pinned from a single report as shown in the Original Dashboard exhibit. (Click the Original Dashboard tab.)

Ask a question about your data



You need to modify the dashboard to appear as shown in the Modified Dashboard exhibit. (Click the Modified Dashboard tab.)



What should you do?

- A. Change the report theme.
- B. Change the dashboard theme.
- C. Edit the details of each tile.
- D. Create a custom CSS file.

**Answer: B**

**Explanation:**

With dashboard themes you can apply a color theme to your entire dashboard, such as corporate colors, seasonal coloring, or any other color theme you might want to apply. When you apply a dashboard theme, all visuals on your dashboard use the colors from your selected theme.

Incorrect:

Not A: With Power BI Desktop report themes, you can apply design changes to your entire report, such as using corporate colors, changing icon sets, or applying new default visual formatting.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-themes>

### Question: 229

CertyIQ

You have a Power BI report. The report contains a visual that shows gross sales by date. The visual has anomaly detection enabled.

No anomalies are detected.

You need to increase the likelihood that anomaly detection will identify anomalies in the report.

What should you do?

- A. Increase the Expected range transparency setting.
- B. Add a data field to the Legend field well.
- C. Increase the Sensitivity setting.
- D. Add a data field to the Secondary values field well.

Answer: C

Explanation:

C. Increase the sensitivity

If you increase the sensitivity, the algorithm is more sensitive to changes in your data. In that case, even a slight deviation is marked as an anomaly. If you decrease the sensitivity, the algorithm is more selective on what it considers an anomaly.

Reference:

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-anomaly-detection>

### Question: 230

CertyIQ

You maintain a Power BI workspace that contains a supplier quality dashboard. The dashboard contains 10 card visuals, two map visuals and five bar chart visuals.

The dashboard mobile layout is shown in the exhibit. (Click the Exhibit tab.)

## Supplier Quality Analysis

Total Defect Quantity

33M

Total Downtime Minutes

77K

Total Defect Reports

BY PLANT, DEFECT TYPE

Defect Type ● Rejected ● Impact ● No Impact



Total Defect Qty, Total Downtime Minutes

BY MATERIAL TYPE

You need to modify the dashboard mobile layout to meet the following requirements:

⇒ Only show single-value visuals.

⇒ Minimize scrolling.

What should you do?

- A. Decrease the size of the card visuals. Remove the map and bar chart visuals.

- B. Decrease the size of the map and bar chart visuals. Move all the card visuals to the top of the layout.
- C. Remove the card visuals. Increase the size of the map and bar chart visuals.
- D. Move the bar chart visuals to the top of the layout. Remove the map visuals. Decrease the size of the card visuals.

**Answer: A**

**Explanation:**

As the requirements, show only value, so A, remove map and charts.

Decreasing the size of card visuals will minimize the scrolling. Removing maps and chart visuals is a requirement as they are non single-value visuals

**CertyIQ**

**Question: 231**

You have a Power BI report.

You have a table named Data1 that contains 10 million rows.

Data1 is used in the following visuals:

- ⇒ A card that shows the number of records
  - ⇒ A bar chart that shows total transaction amount by territory
  - ⇒ A scatter plot that shows transaction amount and profit amount on the axes and points colored by territory
- You need to modify the scatter plot to make it easier for users to identify meaningful patterns. The solution must not affect the accuracy of the other visuals.

What should you do?

- A. Add a count field of the transaction amount to the size bucket of the scatter plot.
- B. Add a trend line to the scatter plot.
- C. Enable high-density sampling on the scatter plot.
- D. Apply a row filter to the Data1 query in Power Query Editor.

**Answer: C**

**Explanation:**

This question requires "modification" of the scatter plot and what high-density sampling essentially does is to employ methods that capture and represent the underlying data more effectively and eliminates overlapping points.

Remember that the table named Data1 contains 10 million rows. How do you represent all that data in a scatter plot in a meaningful pattern for easy understanding and analysis? by use of high density sampling.

"By definition, high-density data is sampled to create visualizations reasonably quickly that are responsive to interactivity. Too many data points on a visual can bog it down, and can detract from the visibility of trends".

This link explains it more: <https://learn.microsoft.com/en-us/power-bi/create-reports/desktop-high-density-scatter-charts#how-high-density-scatter-charts-work>

**CertyIQ**

**Question: 232**

You have a Power BI workspace named Inventory that contains a dataset, a report, and a dashboard.

You need to add an additional tile to the dashboard. The tile must show inventory by location. This information is NOT visualized in the report. The solution must minimize the impact on the report.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Ask a question by using Q&A.
- B. Hide the report page.
- C. Pin the visual to the dashboard.
- D. Use quick insights on the dashboard.
- E. Add the visual to the report.

### Answer: AC

#### Explanation:

In the Power BI service (app.powerbi.com), a dashboard contains tiles pinned from one or more datasets, so you can ask questions about any of the data contained in any of those datasets. T

The answer to your question is displayed as an interactive visualization and updates as you modify the question.

Open a dashboard and place your cursor in the question box. Even before you start typing, Q&A displays a new screen with suggestions to help you form your question. You see phrases and complete questions containing the names of the tables in the underlying datasets and may even see complete questions listed if the dataset owner has created featured questions,

The screenshot shows the Power BI Q&A interface. At the top, there's a navigation bar with icons for Home, Reports, Dashboards, and Groups, followed by the text "Power BI" and "Customer Profitability S...". To the right are search and user profile icons. Below the navigation is a sidebar with various icons: three horizontal lines, a house, a star, a clock, a plus sign, a clipboard, a trophy, a square with a cross, a person icon, a rocket, a book, a document, and a person icon with a gear. The main area has a header "Ask a question about your data" with a back arrow. Below it, a section titled "Try one of these to get started" contains a grid of eight suggestion cards. The first four cards are highlighted with a red border. The other four cards are partially visible below them. The cards contain the following text:

top country/regions by total revenue	top country/regions by sum of revenue	what is the total COGS by country/region	what is the sum of taxes by country/region
top country/regions by YoY gross margin % variance	top country/regions by revenue % variance to budget	what is the ytd cogs by business unit	what is the YoY YTD gross margin growth by business unit
what is the YoY revenue growth by business unit division	count country/regions		

At the bottom right of the main area, there's a link "Show fewer suggestions".

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-tutorial-q-and-a>

**Question: 233**

CertyIQ

**HOTSPOT -**

You have a dataset named Pens that contains the following columns:

- ⇒ Item
- ⇒ Unit Price
- ⇒ Quantity Ordered

You need to create a visualization that shows the relationship between Unit Price and Quantity Ordered. The solution must highlight orders that have a similar unit price and ordered quantity.

Which type of visualization and which feature should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area****Visualization:**

- |   |
|---|
| A column chart of Quantity Ordered and Unit Price by year |
| A line chart of Quantity Ordered and Unit Price by item   |
| A scatter plot of Quantity Ordered and Unit Price by item |

**Feature:**

- |  |
|--|
| Automatically find clusters              |
| Explain the decrease                     |
| Find where the distribution is different |

**Answer:****Answer Area****Visualization:**

- |   |
|---|
| A column chart of Quantity Ordered and Unit Price by year |
| A line chart of Quantity Ordered and Unit Price by item   |
| A scatter plot of Quantity Ordered and Unit Price by item |

**Feature:**

- |  |
|--|
| Automatically find clusters              |
| Explain the decrease                     |
| Find where the distribution is different |

**Explanation:**

Box 1: A scatter plot of Quantity Ordered and Unit Price by item

A scatter chart shows the relationship between two numerical values.

Note: Scatter charts are a great choice:

To show relationships between two numerical values.

To plot two groups of numbers as one series of x and y coordinates.

To use instead of a line chart when you want to change the scale of the horizontal axis.

To turn the horizontal axis into a logarithmic scale.

To display worksheet data that includes pairs or grouped sets of values.

To show patterns in large sets of data, for example by showing linear or non-linear trends, clusters, and outliers.

To compare large numbers of data points without regard to time. The more data that you include in a Scatter chart, the better the comparisons that you can make.

**Box 2: Automatically find clusters**

Scatter charts are a great choice:

- \* To show patterns in large sets of data, for example by showing linear or non-linear trends, clusters, and outliers.

Reference:

<https://github.com/Microsoft/powerbi-visuals-corrrplot/>

## Question: 234

CertyIQ

You have a Power BI report that contains three pages named Page1, Page2, and Page3. All the pages have the same slicers.

You need to ensure that all the filters applied to Page1 apply to Page1 and Page3 only.

What should you do?

- A. On each page, modify the interactions of the slicer.
- B. Enable visibility of the slicers on Page1 and Page3. Disable visibility of the slicer on Page2.
- C. Sync the slicers on Page1 and Page3.

## Answer: C

### Explanation:

C. Sync the slicers on Page1 and Page3.

Editing interactions is not securing any selection in any page will be replicated for the same slicer in other pages.

Making visible or hiding slicers is also not impacting the selection in other pages (and it would be difficult selecting anything in a hidden slicer).

Slicers 1&3 must be synced with equivalent slicers in all pages across the report

Syncing slicers across pages ensures that the filters applied on Page1 are automatically applied to Page3. This allows the slicer selections to affect multiple pages simultaneously. By syncing slicers, you ensure that the same filters are maintained across the desired pages while allowing for flexibility on other pages.

### Why Other Options Are Incorrect:

- A. Modify slicer interactions: This would require more manual setup, and you can't fully control which pages the slicer applies to without syncing.
- B. Enable visibility on specific pages: This approach only affects visibility, not the slicer's functionality across pages.

**Question: 235**

CertyIQ

You have a Power BI report that contains five pages.

Pages 1 to 4 are visible and page 5 is hidden.

You need to create a solution that will enable users to quickly navigate from the first page to all the other visible pages. The solution must minimize development and maintenance effort as pages are added to the report.

What should you do first?

- A. Add a blank button to page 1.
- B. Add a page navigation button to page 1.
- C. Create a bookmark for each page.
- D. Add a bookmark navigation button to page 1.

**Answer: B****Explanation:**

B is correct. Add a page navigation button to page 1 because the solution must minimize development and maintenance effort as pages are added to the report. If we add more pages the report they will be automatically added to the page navigator. Only thing is you have to change 'show hidden pages' option to off. But with the bookmark navigator, lot of efforts required to create individual bookmark to each page and also the newly added pages manually. another problem is it also adds all other bookmarks to the navigator which we dont need. so we should create a page navigator button in page 1(and set 'show hidden pages' to off)

**Question: 236**

CertyIQ

You build a Power BI report that displays IoT temperature data streaming from a refrigerator.

You publish the report to the Power BI service.

You need to be notified when the temperature rises above four degrees Celsius.

What should you do?

- A. Set an alert on a KPI visual in the report.
- B. Pin a card visual to a dashboard and create a subscription.
- C. Pin a card visual to a dashboard and set an alert on the tile.
- D. Pin a report page to a dashboard and set an alert on the page.

**Answer: C****Explanation:**

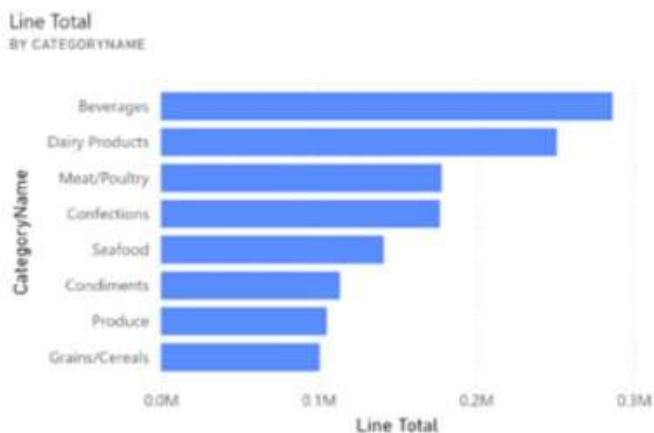
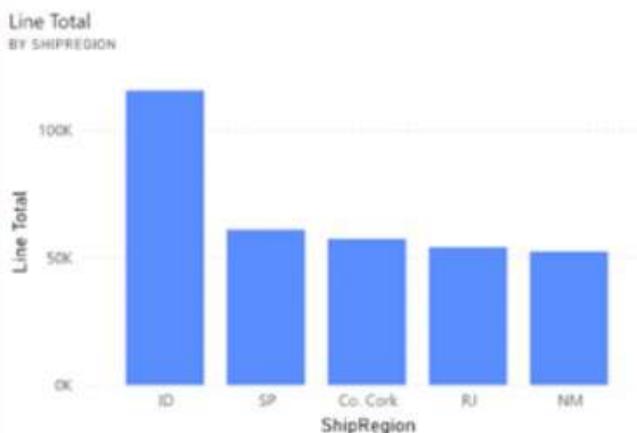
You first have to pin a one-value visual to the dashboard (Card/KPI/Gauge) and then you can set an alert on its value. You can't set alerts on a report or whole report pages pinned to the dashboard.

**Question: 237**

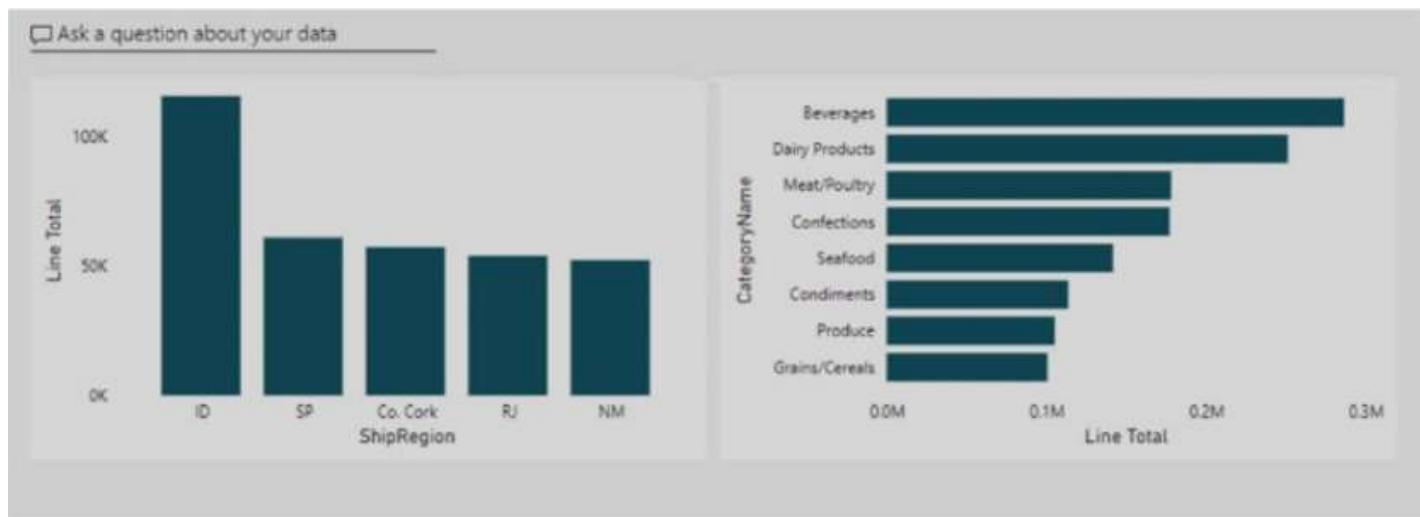
CertyIQ

You have the dashboard shown in the following exhibit.

Ask a question about your data



You need to modify the dashboard to display as shown in the following exhibit.



What should you do?

- A. Create and apply a custom dashboard theme.
- B. Change the colors of the visuals in the report.
- C. Apply the Dark dashboard theme.
- D. Upload a snapshot image of the dashboard.

**Answer: A**

**Explanation:**

The visual colors can't be changed on the dashboard from a report after the visual has already been pinned. Applying a dashboard custom theme will do it.

### Question: 238

CertyIQ

You need to create a Power BI theme that will be used in multiple reports. The theme will include corporate branding for font size, color, and bar chart formatting.

What should you do?

- A. From Power BI Desktop, customize the current theme.

- B. From Power BI Desktop, use a built-in report theme.
- C. Create a theme as a PBIIZ file and import the theme into Power BI Desktop.
- D. Create a theme as a JSON file and import the theme into Power BI Desktop.

**Answer: D**

**Explanation:**

D. Create a theme as a JSON file and import the theme into Power BI Desktop.

To create a Power BI theme that can be used across multiple reports and workspaces, the best approach would be to create a theme as a JSON file and then import it into Power BI Desktop. This will allow you to define the corporate branding for font size, color, and bar chart formatting in a single file, which can then be easily imported into all the reports that require it.

To create a theme as a JSON file, you can use the built-in Theme Generator tool in Power BI or create the file manually. Once you have the JSON file, you can import it into Power BI Desktop by going to the "Switch Theme" menu and selecting "Import Theme." From there, you can select the JSON file and apply the theme to the current report.

A seems to be correct but D is more complete solution, as you have to be able to use it in multiple reports. D does not say how you create the JSON file, though. You can create it by customizing current theme in one of the reports and then exporting it as JSON.

## Question: 239

CertyIQ

You have a Power BI report that contains one page. The page contains two line charts and one bar chart.

You need to ensure that users can perform the following tasks for all three visuals:

- Switch the measures used in the visuals.
- Change the visualization type.
- Add a legend.

The solution must minimize development effort.

What should you do?

- A. Create a bookmark for each acceptable combination of visualization type, measure, and legend in the bar chart.
- B. Edit the interactions between the three visuals.
- C. Enable personalization for the report.
- D. Enable personalization for each visual.

**Answer: C**

**Explanation:**

Personalization can be enabled for each visual or the entire report. Here we have a single page report with 3 visuals and all three visuals need personalization, the answer is 'enable personalization for the entire report' to minimize development efforts.

Enabling personalization allows users to modify the visuals in the report, including switching measures, changing visualization types, and adding legends. This feature minimizes development effort by letting users

customize the visuals according to their preferences without requiring additional setup or bookmarks.

#### Why Other Options Are Incorrect:

- A. Create a bookmark for each combination: This requires creating multiple bookmarks for all possible combinations, increasing complexity.
- B. Edit interactions between visuals: This helps with visual interactivity but doesn't directly allow users to change measures or types.
- D. Enable personalization for each visual: This is not necessary as enabling personalization for the report covers all visuals.

#### Question: 240

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

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 present in the data as a numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create a median line by using the Salary measure.

Does this meet the goal?

- A. Yes
- B. No

#### Answer: A

#### Explanation:

Answer is Yes

We can definitely create a median line for the measure of salary (Tested)

Also the other solution in this series is create a percentile line at 50% for the salary measure because percentile value at 50 % is exactly equal to the median value.

#### Question: 241

CertyIQ

DRAG DROP

You have a Power BI report that contains a table visual with a measure named Revenue. The Revenue measure returns values within a range of 0 to 5.

You need to format the visual so that the Revenue column displays a specific background color based on the value range shown in the following table.

Range	Background color
Values equal to zero	#FFFFFF
Values above 0 and less than or equal to 2	#FFC000
Values above 2 and less than or equal to 3	#E2EFDA
Values above 3 and less than or equal to 4	#A9D062
Values above 4	#00B050

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

**Actions**

- Set Format style to **Rules**.
- Add and configure a new rule for each value range.
- Set Format style to **Field value**.
- Open the **Background color** dialog for the Revenue column.
- Open the **Font color** dialog for the Revenue column.

**Answer Area**

Open the **Background color** dialog for the Revenue column.

Set Format style to **Rules**.

Add and configure a new rule for each value range.

### Answer:

**Actions**

- Set Format style to **Rules**.
- Add and configure a new rule for each value range.
- Set Format style to **Field value**.
- Open the **Background color** dialog for the Revenue column.
- Open the **Font color** dialog for the Revenue column.

**Answer Area**

Open the **Background color** dialog for the Revenue column.

Set Format style to **Rules**.

Add and configure a new rule for each value range.

### Explanation:

To apply conditional formatting to the **Revenue** column in Power BI, follow these steps:

**Open the Background color dialog:** Click on the **Revenue** column and open the formatting options.

**Set Format style to Rules:** This allows you to create rules for different value ranges.

**Add and configure new rules:** Define the color for each value range (e.g., setting one color for low revenue, another for high revenue).

### Question: 242

CertyIQ

You have a Power BI report that contains four pages.

All the pages contain a slicer for a field named Country.

You need to ensure that when a user selects a country on page 1, the selection is retained on page 2 and page 3. The solution must prevent page 4 from being affected by selections on the other pages.

What should you do?

- A.Remove the Country slicer from page 1, page 2, and page 3. Add the Country field to the page-level filters.
- B.Remove the Country slicer from page 1, page 2, and page 3. Add the Country field to the report-level filters.

C.Move the Country slicer from page 2 and page 3 to page 1.

D.Sync the Country slicer on page 1, page 2, and page 3.

**Answer: D**

**Explanation:**

Sync the Country slicer on page 1, page 2, and page 3.

Syncing the Country slicer across pages ensures that the selection made on Page 1 will be retained on Page 2 and Page 3. The Country slicer on Page 4 will not be affected, as it is not synchronized with the other pages.

**Why Other Options Are Incorrect:**

A and B: Using filters at the page or report level doesn't give the flexibility of controlling slicer behavior across individual pages.

C: Moving the slicer to Page 1 only doesn't address the requirement to apply slicer selections across pages.

**Question: 243**

**CertyIQ**

DRAG DROP

-

You use Power BI Desktop to create a Power BI data model and a blank report.

You need to add the Word Cloud visual shown in the following exhibit to the report.

## Defect Descriptions



The solution must minimize development effort.

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 a web browser, download the PBIVIZ file for the Word Cloud visual from Microsoft AppSource.
Format the data colors and title.
From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource.
Populate the drillthrough fields.
Populate the Category, Value, and Excludes fields.



### **Answer:**

Actions
From a web browser, download the PBIVIZ file for the Word Cloud visual from Microsoft AppSource.
Format the data colors and title.
From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource.
Populate the drillthrough fields.
Populate the Category, Value, and Excludes fields.



**Answer Area**

From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource.

Populate the Category, Value, and Excludes fields.

Format the data colors and title.

## **Explanation:**

- 1. From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource**
- 2. Populate the Category, Value, and Excludes fields**
- 3. Format the data colors and title**

(Colors in the Exhibit are different from the default colours)

### **From Power BI Desktop, get the Word Cloud visual from Microsoft AppSource:**

Click on the ellipsis (three dots) in the Visualizations pane, select **Get more visuals**, and search for **Word Cloud** in the AppSource.

### **Populate the Category, Value, and Excludes fields:**

**Category:** The field representing the words you want to visualize.

**Value:** The field representing the size of the words (e.g., frequency).

**Excludes:** Any words you wish to exclude from the visual.

### **Format the data colors and title:**

You can customize the colors for the words and adjust the title to suit your needs.

### **Why This Works:**

This method gives you full control over how the Word Cloud is populated and formatted within Power BI.

## **Question: 244**

**CertyIQ**

DRAG DROP

-

You have a Power BI report that contains five bookmarks.

You need to add an object to the report from which users can navigate between three specific bookmarks.

How should you complete the task? To answer, drag the appropriate actions to the correct steps. Each action 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.

NOTE: Each correct selection is worth one point.

### **Actions**

Add a Bookmark button.

Change the Bookmark property for the button.

Group the other two bookmarks.

Group the three bookmarks.

### **Answer Area**

First step: Add a Bookmark navigator button.

Second step:

Third step:

### **Answer:**

**Actions**

Add a Bookmark button.

Change the Bookmark property for the button.

Group the other two bookmarks.

Group the three bookmarks.

**Answer Area**

First step: Add a Bookmark navigator button.

Second step: Group the three bookmarks.

Third step: Change the Bookmark property for the button.

**Explanation:**

Second step: Group the three bookmarks

Third step: Change the Bookmark property for the button.

**CertyIQ****Question: 245**

You plan to use Power BI to create sales invoices for customers. The solution must meet the following requirements:

- Sales invoices must be exported in a PDF format.
- The PDF exports must show all columns and rows clearly.

What should you create?

- A.a paginated report that contains a tablix
- B.a dashboard that contains a table
- C.an interactive report that contains a table
- D.an interactive report that contains a matrix

**Answer: A****Explanation:**

a paginated report that contains a tablix

A paginated report is the best option for creating invoices in Power BI because it allows for precise control over the layout, ensuring that all columns and rows are visible in the exported PDF format. The tablix is a flexible data region that can handle rows and columns, which is ideal for displaying invoice details in a clear, structured manner.

**Why Other Options Are Incorrect:**

B, C, D: Interactive reports (dashboards or reports with tables or matrices) are not suitable for static exports in PDF format, as they focus on dynamic and interactive viewing rather than structured page layout.

**CertyIQ****Question: 246**

DRAG DROP

You have a Power BI report that contains three pages. The pages are used to analyze sales across various

countries.

You add a slicer named Country to each page of the report.

You need to configure the report to meet the following requirements:

- When a user selects a country on the first page, the report must filter the other pages.
- The second and third pages must display only the filtered results.

Which task should you perform for each requirement? To answer, drag the appropriate task to the correct requirement. Each task 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.

NOTE: Each correct selection is worth one point.

Tasks	Answer Area
Add the Country field to the filters on all the pages	When a user selects a country on the first page, the report must filter the other pages:
Configure the Country slicer to sync across all the pages	The second and third pages must display only the filtered results:
Configure the Country slicer to sync only on the second and third pages	
Hide the Country slicer on the second and third pages	

#### Answer:

Tasks	Answer Area
Add the Country field to the filters on all the pages	When a user selects a country on the first page, the report must filter the other pages:
Configure the Country slicer to sync across all the pages	Configure the Country slicer to sync across all the pages
Configure the Country slicer to sync only on the second and third pages	The second and third pages must display only the filtered results:
Hide the Country slicer on the second and third pages	Hide the Country slicer on the second and third pages

#### Explanation:

- Configure the Country slicer to sync across all the pages
- Hide the Country slicer on the second and third pages

When first page is filtered by country, the other two need to reflect the filter. Configure the country slicer to sync across all the pages will satisfy both questions. Hiding the country slicer from last two pages, is more about user experience and report design than functionality required to meet the given requirements. In the instructions it says that the same task may be used multiple times.

#### Question: 247

CertyIQ

You have a Power BI report that contains a page. The page contains the following:

- A shape named Shape1
- A card named Sales Summary
- A clustered bar chart named Sales by Region

You need to ensure that Sales Summary renders on top of Shape1.

What should you modify?

- A.Tab order in the Selection pane
- B.Layer order in the Selection pane
- C.Maintain layer order in the General visual settings
- D.Vertical alignment in the Canvas settings

**Answer: B**

**Explanation:**

B. Layer order in the Selection pane To ensure that Sales Summary renders on top of Shape1, you need to adjust their layer order in the Selection pane. Power BI renders visuals based on the layer order in the Selection pane, with the topmost visual being rendered last and therefore appearing on top of other visuals. To adjust the layer order, you can select the visuals in the Selection pane and drag them up or down to change their position in the layer order. In this case, you would want to select Sales Summary and drag it above Shape1 in the layer order to ensure it is rendered on top.

**Question: 248**

**CertyIQ**

You have a Power BI report named Report1 and a dashboard named Dashboard1. Report1 contains a line chart named Sales by month.

You pin the Sales by month visual to Dashboard1.

In Report1, you change the Sales by month visual to a bar chart.

You need to ensure that the bar chart displays on Dashboard1.

What should you do?

- A.Refresh the dataset used by Report1 and Dashboard1.
- B.Pin the Sales by month bar chart to Dashboard1.
- C.Select Refresh visuals for Dashboard1.
- D.Edit the details for the dashboard tile of Dashboard1.

**Answer: B**

**Explanation:**

B. Pin the Sales by month bar chart to Dashboard1. When you pin a visual to a dashboard, you are essentially taking a snapshot of that visual at that point in time and adding it to the dashboard as a tile. Any changes made to the original visual in the report will not automatically reflect in the dashboard tile. To display the bar chart on Dashboard1, you need to pin the new Sales by month bar chart to Dashboard1.

<https://learn.microsoft.com/en-us/power-bi/visuals/power-bi-report-change-visualization-type>

**Question: 249**

**CertyIQ**

In Power BI Desktop, you are creating a report that will contain three pages.

You need to create a custom tooltip page and prepare the page for use.

Which three actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. For the tooltip page, set Allow use as tooltip to On.
- B. For the target page, set Allow use as tooltip to On.
- C. Configure filters on the target visual.
- D. For the tooltip page, configure filters.
- E. Add and configure visuals on the tooltip page.

**Answer: ADE**

**Explanation:**

- A. For the tooltip page, set Allow use as tooltip to On

This step makes the page eligible to be used as a tooltip.

- D. For the tooltip page, configure filters

You can configure filters on the tooltip page to control the data displayed based on the hovered visual.

- E. Add and configure visuals on the tooltip page

The tooltip page should contain the visuals that will be shown when hovering over elements in the report.

**Why Other Options Are Incorrect:**

B. For the target page, set Allow use as tooltip to On: The target page doesn't need this setting; it's the tooltip page that needs to have this enabled.

C. Configure filters on the target visual: This step is not needed for tooltip configuration. The tooltip itself handles filtering.

**Question: 250**

**CertyIQ**

DRAG DROP

You need to use AI insights to add a column of enhanced data based on the customer feedback. The solution must identify the following:

- What the customers most often provide feedback about
- Whether the customers like your company's product
- The language of the feedback

Which AI insights service should you use for each output? To answer, drag the appropriate services to the correct outputs. Each service 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.

NOTE: Each correct selection is worth one point.

## AI Insights services

Image Tagging

Key Phrase Extraction

Language Detection

Sentiment Analysis

## Answer Area

What the customers most often provide feedback about:

Whether the customers like your company's product:

The language of the feedback:

## Answer:

### Answer Area

What the customers most often provide feedback about:

Key Phrase Extraction

Whether the customers like your company's product:

Sentiment Analysis

The language of the feedback:

Language Detection

## Explanation:

**Key Phrase Extraction**

**Sentiment Analysis**

**Language Detection**

- Key Phrase Extraction: a text analysis technique that extracts important words and phrases from the input text
- Sentiment analysis: is the process of analyzing digital text to determine if the emotional tone of the message is positive, negative, or neutral
- Language Detection: usually used to identify the language of business texts like emails and chats

## Question: 251

CertyIQ

You have a Power BI report named ReportA.

You have a Power BI tenant that allows users to export data.

You need to ensure that consumers of ReportA cannot export any data from visuals.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. From Power BI Desktop, modify the Report settings.

- B. From Power BI Desktop, modify the Data Load settings.
- C. From the Power BI service, modify the dataset permissions.
- D. From the Power BI service, modify the Report settings.

**Answer: AD**

**Explanation:**

- A. From Power BI Desktop, modify the Report settings

In Power BI Desktop, you can modify report settings to disable the option to export data.

- D. From the Power BI service, modify the Report settings

In the Power BI service, you can also configure report settings to prevent users from exporting data from visuals.

**Why Other Options Are Incorrect:**

- B. Modify the Data Load settings: These settings are related to how data is loaded and do not impact export permissions.
- C. Modify the dataset permissions: This affects data access but does not specifically prevent data export from reports.

## Question: 252

CertyIQ

You have a Power BI report that will be rendered on a vertical display.

You need to maximize the portion of the screen area used by the report.

What should you do?

- A. From the Canvas background setting of Power BI Desktop, configure the Image fit setting.
- B. From the Canvas settings of Power BI Desktop, set a custom width and height.
- C. From Power BI Desktop, select Personalize visuals.
- D. From the Power BI service, enable the Pages pane.

**Answer: B**

**Explanation:**

From the Canvas settings of Power BI Desktop, set a custom width and height.

To maximize the screen area used by the report on a vertical display, you should set a custom width and height for the canvas in Power BI Desktop. By adjusting the dimensions to match the aspect ratio of the display, you ensure the report fills the screen optimally.

**Why Other Options Are Incorrect:**

- A. Image fit setting: This applies to images, not the entire report.

C. Personalize visuals: This allows end-users to modify visuals, not layout or display size.

D. Enable the Pages pane: This only impacts navigation, not the canvas layout.

### Question: 253

CertyIQ

You need to create a visual that compares profit across 10 product categories for a selected quarter.

What is the best visual to use to achieve the goal?

- A. an area chart
- B. a funnel chart
- C. a clustered bar chart
- D. a line chart

### Answer: C

#### Explanation:

C. A clustered bar chart.

A clustered bar chart is the best visual to use to compare profit across 10 product categories for a selected quarter. It allows you to easily compare the profit of each category side-by-side, making it easy to identify the highest and lowest performers. In addition, a clustered bar chart is effective at displaying discrete data, such as categories, which makes it the ideal choice for this scenario.

### Question: 254

CertyIQ

You have a Power BI dataset named Finance that is hosted in a Power BI workspace.

The finance team at your company is NOT currently a member of any Power BI workspace roles.

You need to enable the finance team to use Microsoft Excel to analyze the Finance dataset.

What should you do?

- A. Grant the finance team build permissions to the Finance dataset.
- B. Provide an Excel workbook that is connected to the Finance dataset.
- C. Create a row-level security (RLS) role and add the finance team to the role as members.
- D. Grant the finance team write permissions to the Finance dataset.

### Answer: A

#### Explanation:

you have to have at least build permissions on the dataset

Granting build permissions to the finance team on the Finance dataset allows them to access the dataset in Excel and analyze it. With these permissions, they can connect Excel to the dataset and use it for analysis.

### **Why Other Options Are Incorrect:**

- B: Providing an Excel workbook does not allow direct analysis of the dataset.
- C: Row-level security (RLS) controls data access but doesn't enable Excel analysis.
- D: Write permissions are unnecessary for Excel analysis and could lead to unwanted changes.

<https://learn.microsoft.com/en-us/power-bi/collaborate-share/service-connect-power-bi-datasets-excel>

### **Question: 255**

**CertyIQ**

You have a Power BI report that contains a visual. The visual contains a measure.

You need to ensure that the report meets the following requirements:

- All values must be set to two decimal places.
- All negative values must be displayed in red font and parentheses.

Which two actions should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. For the visual, apply conditional formatting to the background color.
- B. Configure the measure to use a custom format.
- C. For the visual, apply conditional formatting to the font color.
- D. For the visual, set Value decimal places to 2.

### **Answer: BC**

#### **Explanation:**

B to format measure with parenthesis and decimals and C for configuring font color

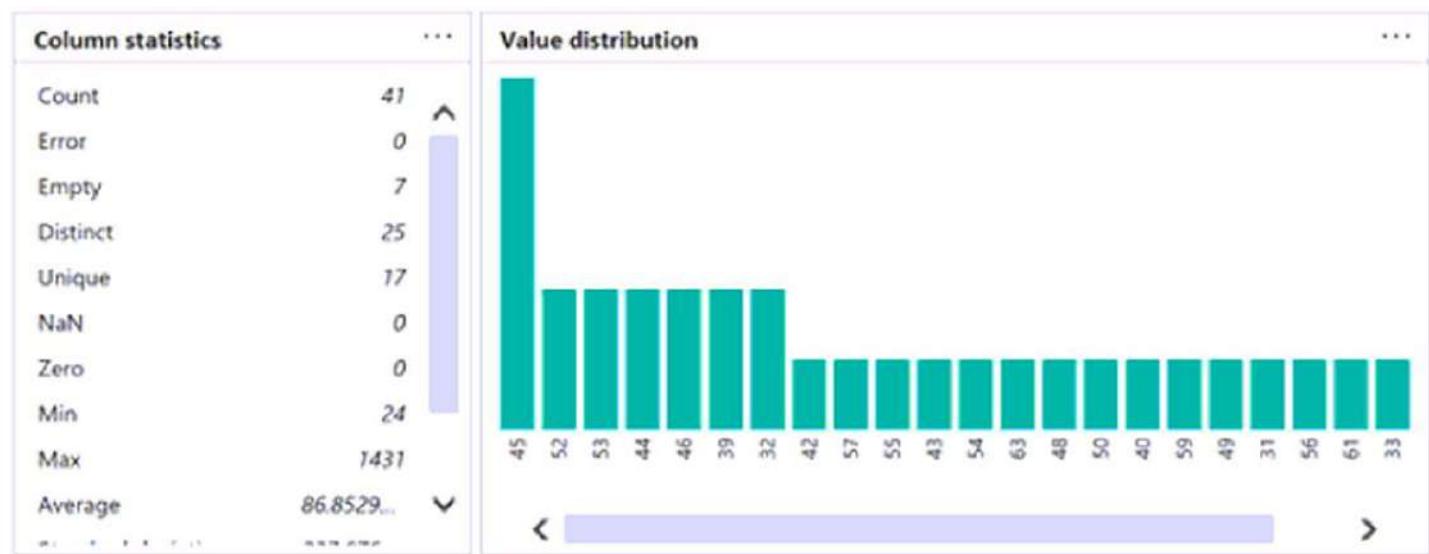
Because.. question each answer should be part of solutions...D. For the visual, set Value decimal places to 2, is partially correct but it only addresses the first requirement of setting all values to two decimal places. To address the second requirement of displaying negative values in red font and parentheses, we need to apply conditional formatting to the font color as stated in option C. Therefore, we need to perform both actions: configuring the measure to use a custom format and applying conditional formatting to the font color. No confusion, and no need to discuss further

### **Question: 256**

**CertyIQ**

HOTSPOT

You are using Power Query Editor to preview the data in a column named Max Temp. The column statistics and value distribution 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.

## Answer Area

The value that occurs most frequently in the column is [answer choice].

The smallest non-NULL value in the column is [answer choice].

**Answer:**

## Answer Area

The value that occurs most frequently in the column is [answer choice].

The smallest non-NULL value in the column is [answer choice].

**Explanation:**

The first question is asking which value was repeated the most in the column, as in, frequency.

When the frequency of the value increases, the bar shown in "value distribution" also increases. So the biggest bar is of the value that is repeated the most, which is 45.

For the second question, the smallest NON-null value, is a fancy way of saying the minimum value that is actually a value not an error, null or an empty field. Which is shown on the left hand side as 24.

This view is Column Profiling it profiles just one column and brings a lot of statistics about it as you can see.

You can read more here. <https://learn.microsoft.com/en-us/power-query/data-profiling-tools>

### Question: 257

CertyIQ

HOTSPOT

-

You have a Power BI report that contains a page. The page contains the following visuals:

- A card
- A matrix
- A bar chart

You need to configure the page to ensure that the card and the bar chart are unaffected when a user drills down in the matrix. The card and the bar chart must change when a user selects a cell in the matrix.

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

NOTE: Each correct selection is worth one point.

### Answer Area

Visual type:

▼

Bar chart
Card
Matrix

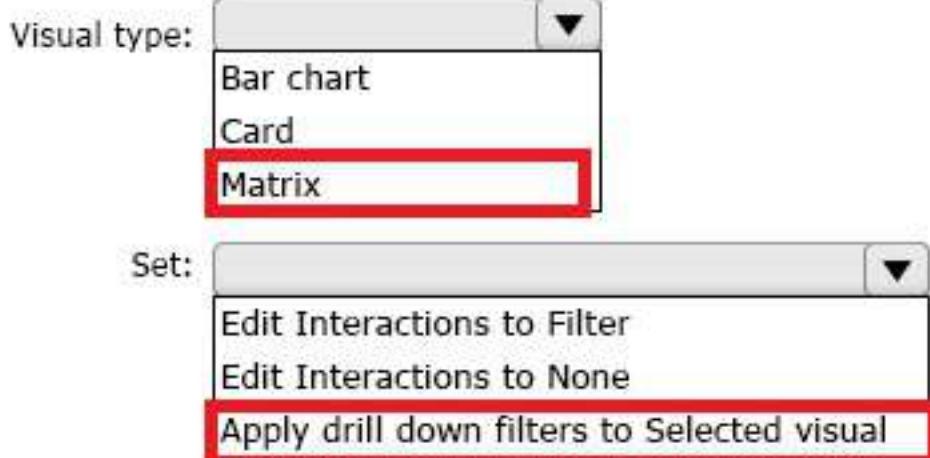
Set:

▼

Edit Interactions to Filter
Edit Interactions to None
Apply drill down filters to Selected visual

Answer:

## Answer Area



### Explanation:

Matrix

#### Apply drill down filters to Selected Visual

<https://learn.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions?tabs=powerbi-desktop#change-the-interactions-of-drillable-visualizations> By default, a matrix will have "Entire Page" in the "Apply drill down filters to" option inside the Format tab, which is what we don't want to happen, so changing to "Selected Visual" should give us the behavior we want

CertyIQ

## Question: 258

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

The Population table contains two columns named PopulationAmount and DateKey.

DateKey contains date values that represent the first day of a year and are used to create a many-to-one relationship with the Date table.

The Power BI model contains two measures that have the following definitions.

Total Population = Sum('Population'[PopulationAmount])

2023 Population = CALCULATE([Total Population], 'Date'[Year] = 2023)

You create a table visual that displays Date[Year] and [2023 Population].

What will the table visual show?

- A.one row per year that contains blank values for every year except 2023
- B.one row per date that contains the population value for the corresponding year repeated in each row
- C.a single row for the year 2023 that contains the related population value
- D.one row per year that contains the same value repeated for each year

### Answer: D

### Explanation:

Correct answer is: D. one row per year that contains the same value repeated for each year.

Total Population calculates the sum of PopulationAmount across the entire Population table.

2023 Population is calculated by filtering the Date table to only include data for the year 2023.

In the table visual, the 2023 Population measure will return the 2023 population value for every row. It doesn't depend on the actual year but instead repeats the population of 2023 for all the years listed in the Date[Year] column.

#### **Why Other Options Are Incorrect:**

A: Blank values won't appear as the measure still returns a value for 2023.

B: The value isn't tied to individual dates, only to the year 2023.

C: The table doesn't show a single row for only 2023. It shows all years, but with the same population value for 2023 across each.

**CertyIQ**

#### **Question: 259**

You have a Power BI dataset that contains quarterly sales performance data.

You need to enable managers to review the data in a format that meets the following requirements:

- Is optimized for printing.
- Renders data in Microsoft Excel, Word, PowerPoint, and PDF formats.

What should you create?

- A.a template app
- B.a dashboard
- C.a paginated report
- D.an interactive report

#### **Answer: C**

#### **Explanation:**

Correct answer is C:a paginated report.

A paginated report is designed specifically for printing, with precise control over layout and formatting. It can be exported to various formats such as Excel, Word, PowerPoint, and PDF, meeting the requirements of rendering data in different formats and being optimized for print.

#### **Why Other Options Are Incorrect:**

A. Template app: Used for pre-packaged content and apps, not for print-friendly reports.

B. Dashboard: Primarily for interactive viewing, not optimized for printing.

D. Interactive report: Designed for on-screen interaction, not print optimization.

**Question: 260**

CertyIQ

You have a Power BI report that contains the visuals shown in the following table.

Type	Horizontal coordinate	Vertical coordinate
Table	300	200
Clustered column chart	700	200
Slicer	20	100

You need to modify the location of each visual.

What should you modify for each visual?

- A.the layer order
- B.the padding
- C.the position
- D.the tab order

**Answer: C****Explanation:**

Correct answer is C:the position.

The position refers to the horizontal and vertical coordinates of each visual in Power BI. In this case, to modify the location of each visual, you need to adjust its position by changing the horizontal and vertical coordinates provided (such as 300, 700 for the Clustered column chart).

**Why Other Options Are Incorrect:**

- A. Layer order: Affects the visibility of visuals overlapping one another, not the location.
- B. Padding: Controls the space inside the visual, not its position.
- D. Tab order: Refers to the sequence for navigating between visuals, not their position.

**Question: 261**

CertyIQ

You have a Power BI report. The report contains a line chart that displays sales data for several regions.

You need to add an element to the report that will enable users to filter the sales data to include only a selected region.

Which two elements achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.a slicer visual
- B.a drillthrough filter
- C.a table visual

D.a card visual

E.a Key Performance Indicator (KPI) visual

**Answer: AC**

**Explanation:**

- A. a slicer visual.
- C. a table visual

A. Slicer visual: Slicers allow users to filter data interactively and can be used to filter the sales data by region in this case.

C. Table visual: While not a primary filter, a table visual can be used to display region data that can be clicked on for filtering, especially when combined with other visuals.

**Why Other Options Are Incorrect:**

- B. Drillthrough filter: This is for filtering to a detailed page, not for filtering within the same page.
- D. Card visual: A card visual displays a single metric, not used for filtering.
- E. KPI visual: Similar to card visuals, KPIs are for showing performance indicators, not filtering.

**Question: 262**

**CertyIQ**

DRAG DROP

You plan to use Power BI to create a quarterly profit report that meets the following requirements:

- Emphasizes the percentage of total profits contributed by each product category in dollars and as a percentage
- Compares profit margins across sales regions

Which type of visual should you use for each requirement? To answer, drag the appropriate visuals to the correct requirements. Each visual 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.

NOTE: Each correct selection is worth one point.

**Visuals**

- Area chart
- Funnel chart
- Multi-row card
- Pie chart
- Stacked bar chart

**Answer Area**

Emphasizes the percentage of total profits contributed by each product category:

Compares profit margins across sales regions:

**Answer:****Visuals**

Area chart

Funnel chart

Multi-row card

Pie chart

Stacked bar chart

**Answer Area**

Emphasizes the percentage of total profits contributed by each product category:

Pie chart

Compares profit margins across sales regions:

Stacked bar chart

**Explanation:**

Pie Chart.

Stacked Bar Chart.

**CertyIQ****Question: 263**

You have the CSV file shown in the following table.

Month	2021	2022
January	1000	2500
February	4000	5000
March	2800	3400

You use Power Query Editor to preview the data in the file.

You need to transform the data to meet the following requirements:

- The first column must contain the month.
- The second column must contain the year.
- The third column must contain the order amount for the month and year.

Which transformation should you use first?

- A.remove
- B.unpivot
- C.transpose
- D.pivot

**Answer: B****Explanation:**

Correct answer is B:unpivot.

The unpivot transformation is used to convert columns into rows, which is exactly what you need to transform the data. It will turn the order amounts (in columns) into rows under the corresponding month and year, making the data more manageable and meeting the requirement of having separate columns for month, year,

and order amount.

**Why Other Options Are Incorrect:**

- A. Remove: This would delete unnecessary columns, but it doesn't reshape the data.
- C. Transpose: This swaps rows and columns, which is not the required transformation.
- D. Pivot: This aggregates data but doesn't turn columns into rows.

**Question: 264**

CertyIQ

You are creating a Power BI single-page report.

Some users will navigate the report by using a keyboard, and some users will navigate the report by using a screen reader.

You need to ensure that the users can consume content on a report page in a logical order.

What should you configure on the report page?

- A.the layer order
- B.the X position
- C.the bookmark order
- D.the tab order

**Answer: D**

**Explanation:**

the tab order.

The tab order controls the navigation flow for keyboard users and ensures that all content is accessible in a logical sequence. This is important for both keyboard and screen reader users to navigate the report in an accessible and predictable manner.

**Why Other Options Are Incorrect:**

- A. Layer order: Controls which visuals are in front or behind other visuals, not the navigation order.
- B. X position: Determines horizontal placement but doesn't affect navigation.
- C. Bookmark order: Relevant for navigating between different views or sections, not for logical navigation.

**Question: 265**

CertyIQ

You are configuring a Power BI report for accessibility as shown in the following table.

## Sales Vs. Budget Trend

**\$247,303,435**

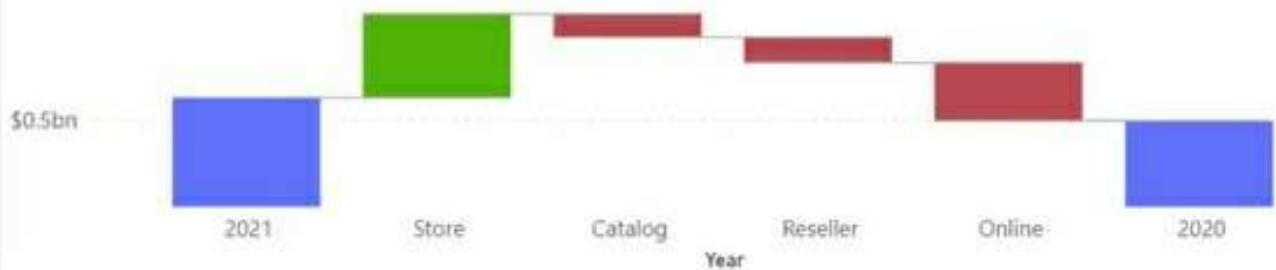
Goal: \$203,809,898 (+21.34%)

Channel Name	Budget Amount	Actual Amount	VTF
Store	\$1,169,697,552	\$623,177,878	
Online	\$398,860,554	\$180,836,995	
Reseller	\$271,753,368	\$120,423,280	
Catalog	\$173,416,745	\$87,389,776	
<b>Total</b>	<b>\$2,013,728,218</b>	<b>\$1,011,827,929</b>	

## Sales Vs. Budget Trend

● Increase ● Decrease ● Total ● Other

\$0.6bn



You need to change the default colors of all three visuals to make the report more accessible to users who have color vision deficiency.

Which two settings should you configure in the Customize theme window? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. First-level elements colors
- B. Theme colors
- C. Divergent colors
- D. Sentiment colors

**Answer: BC**

**Explanation:**

B- theme colors cause you can customize it yourself

C- Divergent specifically address color blind users

D is not correct because it uses colors like RED, GREEN, which hurts visual impaired users

**Question: 266**

**CertyIQ**

HOTSPOT

You have a Power BI workspace that contains a semantic model and a report named Sales report.

All users in the sales department are assigned the Viewer role for the workspace.

The Sales report is configured as shown in the Sales report exhibit. (Click the Sales report tab.)

## Settings for Sales report

Choose the type of data you allow your end users to export.

Summarized data and data with current layout



### Filtering experience

Allow users to change filter types



Enable search for the filter pane



### Cross-report drill through

Allow visuals in this report to use drill-through targets from other reports



### Comments

Allow users to add comments to this report.



### Personalize visuals

Allow report readers to personalize visuals to suit their needs.



### Modern visual tooltips

Use modern visual tooltips with drill actions and updated styling



### Tooltips auto-scale (preview)

Tooltip size is affected by canvas size



## Insights (preview)

Allow users to get notified when key insights are available for this report.



From Power BI Desktop, you configure the Report settings as shown in the Report settings exhibit. (Click the Report settings tab.)

### GLOBAL

- Data Load
- Power Query Editor
- DirectQuery
- R scripting
- Python scripting
- Security
- Privacy
- Regional Settings
- Updates
- Usage Data
- Diagnostics
- Preview features
- Save and Recover
- Report settings

### CURRENT FILE

- Data Load
- Regional Settings
- Privacy
- Auto recovery
- Published dataset settings
- Query reduction
- Report settings

### Persistent filters

- Don't allow end user to save filters on this file in the Power BI service

### Visual options

- Hide the visual header in reading view
- Use the modern visual header with updated styling options
- Change default visual interaction from cross highlighting to cross filtering

### Export data

- Allow end users to export data with current layout and summarized data from the Power BI service or Power BI Report Server
- Allow end users to export data with current layout, summarized data and underlying data from the service or Report Server
- Don't allow end users to export any data from the service or Report Server

### Filtering experience

- Allow users to change filter types
- Enable search for the filter pane

### Cross-report drillthrough

- Allow visuals in this report to use drillthrough targets from other reports

### Personalize visuals

- Allow report readers to personalize visuals to suit their needs

### Develop a visual

- Override the available AppSource visual's version for this session, so you can upload and test a visual file

### Tooltips auto-scale (preview)

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

## Answer Area

Statements	Yes	No
A user can change a bar chart to a pie chart in the Sales report.	<input type="radio"/>	<input type="radio"/>
A user can reshare their modified visuals with users outside of the sales department.	<input type="radio"/>	<input type="radio"/>
A user can create a new quick measure and add it to a visual.	<input type="radio"/>	<input type="radio"/>

## Answer:

### Answer Area

Statements	Yes	No
A user can change a bar chart to a pie chart in the Sales report.	<input checked="" type="radio"/>	<input type="radio"/>
A user can reshare their modified visuals with users outside of the sales department.	<input type="radio"/>	<input checked="" type="radio"/>
A user can create a new quick measure and add it to a visual.	<input type="radio"/>	<input checked="" type="radio"/>

## Explanation:

Yes, No, No.

For the second one, the viewer role does not have access to share/reshare: <https://learn.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

For third, there is no mention of being able to add a new measure:

<https://learn.microsoft.com/en-us/power-bi/create-reports/power-bi-personalize-visuals?tabs=powerbi-desktop>

## Question: 267

CertyIQ

You need to use Power BI to create a visual that will allow users to compare the sales performance of five sales regions for the current month.

Which visual should you use?

- A.a line chart
- B.a stacked bar chart
- C.a 100% stacked bar chart
- D.a waterfall chart

**Answer: B**

**Explanation:**

Correct answer is B:a stacked bar chart.

A stacked bar chart allows you to compare sales performance across different sales regions, with each region's performance represented as a segment of the bar. This visual is useful for showing both individual and total sales across multiple categories (regions), which aligns well with the requirement to compare five sales regions for the current month.

**Why Other Options Are Incorrect:**

- A. Line chart: Best suited for showing trends over time, not for comparing regions.
- C. 100% stacked bar chart: Useful for showing proportional data, not for comparing absolute values.
- D. Waterfall chart: Primarily used for visualizing incremental changes, not direct comparisons.

**Question: 268**

CertyIQ

HOTSPOT

-

You have a Power BI workspace.

You need to create two reports that meet the following requirements:

- Report1: Optimized for printing and can be delivered to users via a scheduled email subscription
- Report2: Optimized for dynamic user interactivity

Which format should you use for each report? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

Report1:

- Microsoft SQL Server Reporting Services (SSRS) (.rdlc)
- Power BI (.pbix)
- Power BI paginated (.rdl)

Report2:

- Microsoft SQL Server Reporting Services (SSRS) (.rdlc)
- Power BI (.pbix)
- Power BI paginated (.rdl)

**Answer:**

## Answer Area

Report1:

- Microsoft SQL Server Reporting Services (SSRS) (.rdlc)
- Power BI (.pbix)
- Power BI paginated (.rdl)**

Report2:

- Microsoft SQL Server Reporting Services (SSRS) (.rdlc)
- Power BI (.pbix)**
- Power BI paginated (.rdl)

### Explanation:

Box1:Power bi Paginated

Box2:Power bi

#### Report1: Power BI Paginated (.rdl):

Paginated reports are designed for printing and exporting. They are highly structured, with content fixed to a page, and are ideal for generating large reports that can be emailed or printed in a consistent format. They are optimized for scenarios where the report layout and distribution (via email or other methods) are key considerations.

#### Report2: Power BI (.pbix):

Power BI desktop files (.pbix) allow for dynamic interactivity. Users can filter, drill down, and interact with the data on the report. These are ideal for reports where users need to explore data interactively rather than just viewing static, printed information.

## Question: 269

CertyIQ

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

## Current Month Returns in USD

Store ID	Store	Returns	
6	Leo	\$6,108	
5	Fama	\$6,097	
13	Contoso	\$5,214	
11	Pomum	\$4,968	
7	VanArnsdel	\$4,964	
10	Pirum	\$4,644	
2	Aliqui	\$4,479	
1	Abbas	\$4,070	
8	Natura	\$3,376	
14	Victoria	\$2,317	
4	Salvus	\$2,296	
12	Quibus	\$2,208	
3	Barba	\$1,601	
<b>Total</b>		<b>\$52,342</b>	

The table contains conditional formatting that shows which stores are above, near, or below the monthly quota for returns.

You need to ensure that the table is accessible to consumers of reports who have color vision deficiency.

What should you do?

- A.Move the conditional formatting icons to a tooltip report.
- B.Add alt text that lists the values in the table.
- C.Change the icons to use a different shape for each color.
- D.Remove the icons and use red, yellow, and green background colors instead.

**Answer: C**

**Explanation:**

Change the icons to use a different shape for each color.

It's a "color vision deficiency" so using different shapes would secure understanding of the report for that group of users

**Question: 270**

CertyIQ

You have a Power BI report that contains one visual.

You need to provide users with the ability to change the visual type without affecting the view for other users.

What should you do?

- A.From the Bookmarks pane, select Focus mode, and then select Add.
- B.From Report settings, select Personalize visuals.
- C.From Visual options in Report settings, select Use the modern visual header with updated styling options.
- D.From Tabular Editor, create a new perspective.

**Answer: B****Explanation:**

From Report settings, select Personalize visuals.

B. Personalize visuals enables users to modify visuals without affecting other users' views. This option supports personalized visual customization at the individual user level.

**Why other options are incorrect:**

- A. Focus mode allows users to focus on one visual but doesn't provide an option to change the visual type.
- C. Visual options in Report settings only changes how the visual header appears, not the visual type itself.
- D. Tabular Editor is used for advanced model editing, not for enabling user visual customizations.

**Question: 271**

CertyIQ

HOTSPOT

You have a Power BI report that contains the table visual shown in the following exhibit.

OrderDate	Total Sales	Total Cost
01-Oct-22	10.75	8.06
03-Oct-22	98.50	73.88
07-Oct-22	43.00	32.25
11-Oct-22	25.99	19.49
12-Oct-22	156.00	117.00
15-Oct-22	40.80	30.60

You need to modify the visual to display as shown in the following exhibit.

	01-Oct-22	03-Oct-22	07-Oct-22	11-Oct-22	12-Oct-22	15-Oct-22	Total
--	-----------	-----------	-----------	-----------	-----------	-----------	-------

Total Cost	8.06	73.88	32.25	19.49	117.00	30.60	<b>281.28</b>
Total Sales	10.75	98.50	43.00	25.99	156.00	40.80	<b>375.04</b>

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

NOTE: Each correct selection is worth one point.

### Answer Area

Type:

- Matrix
- Multi-row card
- Table

Format:

- Set Rows subtotals to Off.
- Set Stepped layout to Off.
- Set Switch values to rows to On.

Answer:

### Answer Area

Type:

- Matrix**
- Multi-row card
- Table

Format:

- Set Rows subtotals to Off.
- Set Stepped layout to Off.
- Set Switch values to rows to On.**

## Explanation:

### 1. Type: Matrix

- A **Matrix** visual in Power BI allows you to display data in a pivot-table-like format, with values organized across rows and columns.
- In the required format, dates are presented as column headers, and `Total Cost` and `Total Sales` are shown as row headers. This layout can only be achieved using a Matrix visual, not a Table or Multi-row card.

### 2. Format: Set Switch values to rows to On

- This setting pivots the `Total Sales` and `Total Cost` values into rows instead of displaying them as separate columns. It organizes them as row headers under a single column (as shown in the desired format).

## Why Other Options Are Incorrect

### Type: Table or Multi-row card

A **Table** visual displays data in a flat format, with no pivoting or hierarchical structures, making it impossible to organize dates as columns and measures (e.g., Total Cost and Total Sales) as rows.

A **Multi-row card** is for displaying summarized data values, not structured row-column relationships.

### Format: Set Rows subtotals to Off

Subtotals are unrelated to achieving the desired layout; this setting only affects the visibility of subtotals, which is not relevant here.

### Format: Set Stepped layout to Off

The Stepped layout adjusts hierarchical indentation for rows in a Matrix visual. It does not control the pivoting of values to rows, so it is irrelevant for this requirement.

## Question: 272

CertyIQ

You have a Power BI report that contains a card. The card displays the value for year-to-date revenue.

You need to ensure that screen reader users can read the value when initially interacting with the card. The value must stay updated as the dataset is refreshed.

What should you do?

- A.Convert the card into a text box.
- B.Add the value to the chart title text.
- C.Populate the alt text with a static value.
- D.Populate the alt text by using conditional formatting with a DAX measure.

## Answer: D

## Explanation:

Populate the alt text by using conditional formatting with a DAX measure.

**Requirement:**

The value displayed in the card must be **readable by screen readers**.

The value should stay **updated dynamically** when the dataset is refreshed.

**Why Option D is Correct:**

Using **conditional formatting** with a DAX measure for the **alt text** ensures the alt text dynamically updates whenever the dataset is refreshed.

Screen readers will read the updated alt text, making the value accessible and always accurate.

**Why Other Options Are Incorrect:**

**A. Convert the card into a text box:**

A text box does not support dynamic updates based on data refresh. You would need to manually update the text box whenever the dataset changes.

**B. Add the value to the chart title text:**

While chart titles can be read by screen readers, this option does not apply to cards. It also lacks flexibility in dynamically presenting values in the alt text for accessibility.

**C. Populate the alt text with a static value:**

A static alt text value would not update when the dataset refreshes, failing the requirement for dynamic updates.

**Question: 273**

CertyIQ

You have a Power BI report that contains a table visual. The visual contains a column.

The column contains whole numbers ranging from 1 to 20.

You need to use conditional formatting to meet the following requirements:

- Visually compare the values without having to read the text containing the number.
- Show a different format for each distinct value.
- Hide the numeric value of ColumnA.
- Minimize development effort.

Which formatting should you use?

- A.font color
- B.icons
- C.data bars
- D.background color

**Answer: C**

**Explanation:**

Correct answer is C:data bars.

**C. Data bars** are ideal for visually comparing values without displaying the actual numbers. They provide a visual representation of the data, with varying lengths indicating the size of each value. This minimizes the need to read text while fulfilling the requirement to show a different format for each distinct value.

**Why other options are incorrect:**

**A. Font color** only changes the color of the text, but doesn't provide a distinct visual representation of the values.

**B. Icons** can show distinct symbols, but data bars are better for comparing values.

**D. Background color** would apply a color background, but it doesn't offer the same comparison clarity as data bars.

**Question: 274**

**CertyIQ**

HOTSPOT

You use Power Query Editor to preview the data in a column named Resource Location.

The column statistics and value distributions of Resource Location appear 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

There are [answer choice] values that occur only once in Resource Location.

0
13
2,863

The value that occurs the most frequently is [answer choice].

EU North
Middle East And Africa
US East
ZA North

### Answer:

#### Answer Area

There are [answer choice] values that occur only once in Resource Location.

0
13
2,863

The value that occurs the most frequently is [answer choice].

EU North
Middle East And Africa
US East
ZA North

### Explanation:

Unique is 0.

Most frequently occurred is US East

First solution must be '0' as there are no UNIQUE values.

13 is the number of DISTINCT values in the dataset.

US East is the one occurring many more times than the rest (on top in the bar chart)

### Question: 275

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

Product	Sales
Amarilla	17,747,116.06
Carretera	13,815,307.89
Montana	15,390,801.88
Paseo	33,011,143.95
Velo	18,250,059.47
VTT	20,511,921.02
<b>Total</b>	<b>118,726,350.26</b>

You need to make the visual more accessible to users who have color vision deficiency.

What should you do?

- A.Change the font color of values in the Sales column to white.
- B.Change the red background color to orange.
- C.Add additional measures to the table values.
- D.Add icons to represent the sales status of each product.

**Answer: D**

**Explanation:**

Add icons to represent the sales status of each product.

D. Add icons helps to make the visual more accessible to users with color vision deficiencies by providing an additional layer of information. Icons can represent the sales status of each product, making it easier for users to understand the data without relying solely on color.

**Why other options are incorrect:**

- A. Changing font color improves readability but does not address color blindness.
- B. Changing the background color might still be difficult for colorblind users to interpret.
- C. Adding additional measures does not directly help users with color vision deficiencies.

**Question: 276**

**CertyIQ**

You have a Power BI app that contains a report named Report1.

You add a new page to Report1.

You need to ensure that users can view the new page. The solution must minimize administrative effort.

What should you do?

- A.Update the audience in the app.

- B.Update the app.
- C.Update the contact information in the app.
- D.Unpublish and create a new app.

**Answer: B**

**Explanation:**

Update the app.

**Requirement:**

You added a new page to an existing report in a Power BI app.

You need to make the new page visible to users with minimal administrative effort.

**Why Option B is Correct:**

Updating the app allows you to include the new page in the app and publish the changes. This process does not require unpublishing or creating a new app, thus minimizing effort.

Existing users of the app will automatically see the changes after you update the app.

**Why Other Options Are Incorrect:**

A. Update the audience in the app:

Updating the audience controls who can view the app but does not update the content within the app. This option does not address the need to make the new page visible.

C. Update the contact information in the app:

Contact information only provides user support details. It does not affect the visibility of pages or content within the app.

D. Unpublish and create a new app:

Unpublishing and recreating the app would involve significantly more effort and is unnecessary for simply adding a new page to an existing app.

**Question: 277**

**CertyIQ**

You have a Power BI semantic model that contains a table named Table1. Table1 contains the following columns:

- WebsiteName
- URL

You need to create a report named Report1 that will contain a table visual. The solution must meet the following requirements:

- Display the website name.
- Enable users to navigate to the website's URL by selecting the website name.

What should you use?

- A.data categories
- B.Conditional Formatting
- C.inline hierarchy labels
- D.URL icons

**Answer: B**

**Explanation:**

1. B- need to "Enable users to navigate to the website's URL by selecting the website name"

To enable users to navigate to a website's URL by selecting the website name, you should use conditional formatting to turn the website names into hyperlinks. In Power BI, this can be done by applying URL formatting to the column containing the website names, allowing them to function as clickable links.

**Why other options are incorrect:**

- A. Data categories: Used for categorizing data types, not for creating hyperlinks.
- C. Inline hierarchy labels: Used for hierarchical visuals, not for linking URLs.
- D. URL icons: Refers to icons for links, not for making text clickable.

**Question: 278**

CertyIQ

HOTSPOT

You use Power Query Editor to review a query that contains a column named Country.

You need to view the following information in the Data preview view for the Country column:

- The percentage of values that contain errors.
- The count of empty values.

What should you enable? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

To view the percentage of values that contain errors:

	▼
Column distribution	▼
Column profile	▼
Column quality	▼

To view the count of empty values:

	▼
Column distribution	▼
Column profile	▼
Column quality	▼

Answer:

## Answer Area

To view the percentage of values that contain errors:

	▼
Column distribution	▼
Column profile	▼
Column quality	▼

To view the count of empty values:

	▼
Column distribution	▼
Column profile	▼
Column quality	▼

Explanation:

Both Answers are Column Quality

### Column Quality:

The Column quality feature in Power Query provides a visual summary of the column data, including:

The percentage of valid values.

The percentage of error values.

The percentage of empty (null) values.

This is exactly what you need to see both the percentage of errors and the count of empty values.

### Column Profile:

The Column profile provides a statistical overview of the data, such as distinct values, unique values, and value distribution. While useful, it does not specifically display the percentage of errors or count of empty values.

## Column Distribution:

The **Column distribution** feature shows the frequency distribution of values in the column as a bar chart. It is not used for viewing errors or empty values.

### Question: 279

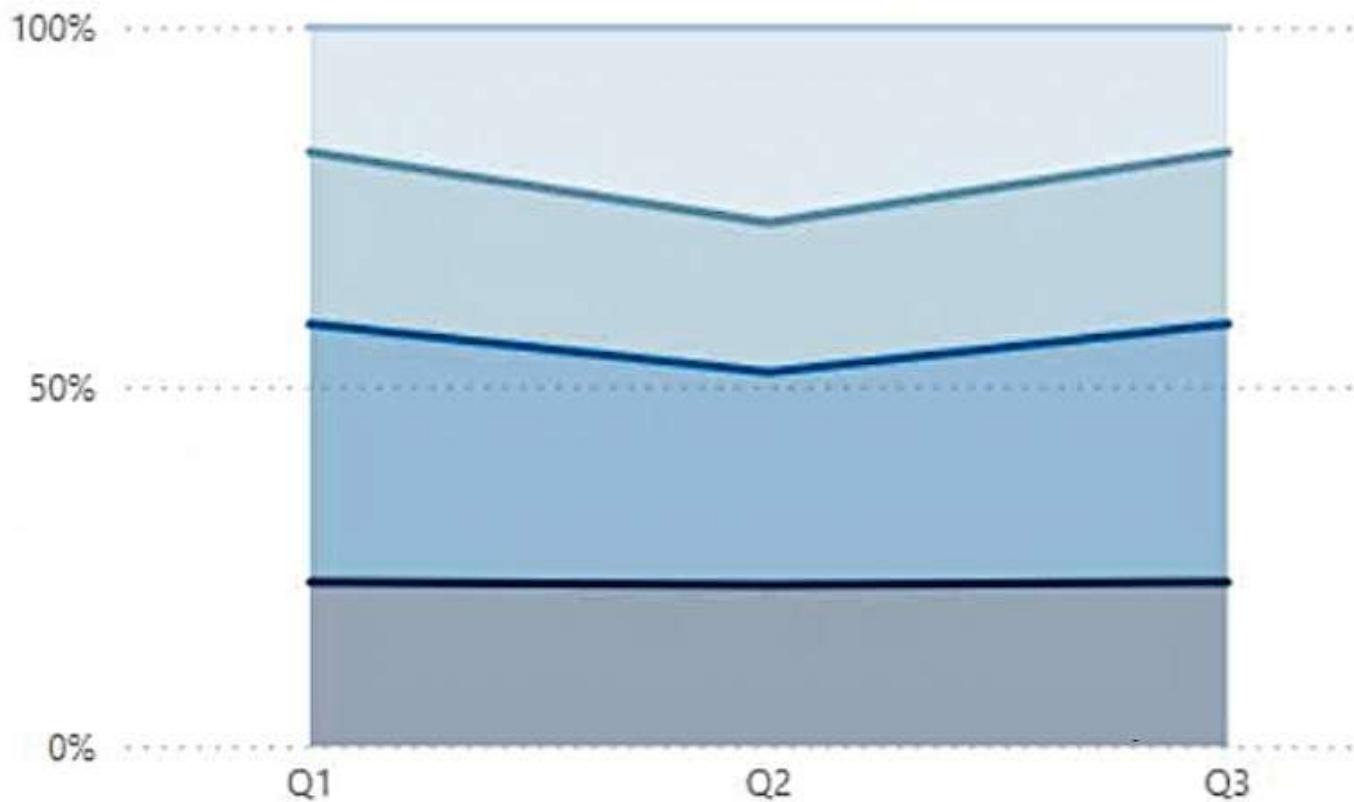
CertyIQ

You have a Power BI semantic model named Model1 that contains two fields named Sales and Quarter. Model1 contains a DAX measure that sums the Sales column.

You need to create a report that will contain the visual shown in the following exhibit.

### Sales By Quarter

Category ● Product A ● Product B ● Product C ● Product D



The solution must NOT require additional DAX measures.

Which type of visual should you use?

- A.ribbon chart
- B.line chart
- C.100% stacked area chart
- D.area chart

### Answer: C

### Explanation:

You need to create a report that will contain the visual shown in the following exhibit.', that is clearly meant for 100% stacked area chart. Cannot be B line chart as per the exhibited visual shown which is stacked category..

B does not show referring to the visual diagram where you have different product category stacked up, question outlines

### Question: 280

CertyIQ

DRAG DROP

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

You need to create a Power BI report page that contains two visuals that meet the following requirements:

- Visual 1: Displays the distribution of hierarchical data
- Visual 2: Search and then filter by values

Which type should you choose for each visual? To answer, drag the appropriate visual types to the correct visuals. Each visual 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.

NOTE: Each correct selection is worth one point.

### Visuals

Gauge

Slicer

Smart narrative

Table

Treemap

### Answer Area

Visual 1:

Visual 2:

Answer:

### Answer Area

Visual 1: Treemap

Visual 2: Slicer

Explanation:

Treemap is for hierarchical data and slicer is for filtering

**Question: 281**

HOTSPOT

You use Power Query Editor to review the query shown in the following exhibit.

	A <sup>B</sup> <sub>C</sub> Region	A <sup>B</sup> <sub>C</sub> State	1 <sup>2</sup> <sub>3</sub> Jan-24	1 <sup>2</sup> <sub>3</sub> 24-Feb
1	New England	Connecticut	135406	301796
2		Maine	277491	379959
3		Massachusetts	351593	51885
4		New York	228595	469117
5		Vermont	351707	428020
6	Mountain	Colorado	98470	47417
7		Idaho	233238	298378
8		Montana	398674	38907
9		Utah	457837	221236
10	Mid Atlantic	Maryland	161599	250716
11		New Jersey	76077	351063
12	Midwest	Kansas	75837	278442
13		Missouri	403898	19499
14		Nebraska	62773	71883
15	Pacific	Washington	299344	405026
16		Oregon	197197	191106
17		California	385586	39890

Each Region value appears only on the row where it first occurred. Each subsequent occurrence of the Region value is blank.

You need to ensure that every row contains the correct non-blank value. The solution must minimize development effort.

Which column should you select, and which action should you perform on the column? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Column:

	▼
Jan-24	▼
Region	▼
State	▼

Action:

	▼
Fill down.	▼
Fill up.	▼
Replace the values.	▼
Unpivot the column.	▼

Answer:

## Answer Area

Column:

	▼
Jan-24	▼
Region	▼
State	▼

Action:

	▼
Fill down.	▼
Fill up.	▼
Replace the values.	▼
Unpivot the column.	▼

Explanation:

Region

Fill down

The Fill Down action in Power Query propagates the last non-blank value downward into subsequent blank cells within the same column. This ensures that all blank rows in the “Region” column are filled with the correct value from the previous row where the region was specified.

**Question: 282**

CertyIQ

You have a Power BI report that contains a bar chart. The bar chart displays sales by country.

You need to ensure that a summary of the data shown on the bar chart is accessible by using a screen reader.

What should you configure on the bar chart?

- A.conditional formatting
- B.alt text
- C.the tab order
- D.the layer order

**Answer: B****Explanation:**

Alt text (alternative text) is used to provide a textual description of the visual content for users relying on screen readers. In this case, configuring alt text ensures that a summary of the bar chart (e.g., "Sales by country") can be read out by a screen reader, making the data accessible.

**Question: 283**

CertyIQ

HOTSPOT

-

You have the Performance analyzer results shown in the following exhibit.

## Performance analyzer

»

[Start recording](#)[Refresh visuals](#)[Stop](#)[Clear](#) [Export](#)

Name	Duration (ms)
⌚ Recording started (9/6/2024 7:16:11 PM)	-
⌚ Refreshed visual	-
⌚ Mobility Button	176
Visual display	138
Other	37
📄 Copy query	
📅 Run in DAX Query View	
⌚ Adoption Button	175
Visual display	138
Other	37
📄 Copy query	
📅 Run in DAX Query View	
⌚ Usage Button	175
Visual display	139
Other	36
📄 Copy query	
📅 Run in DAX Query View	
⌚ August 2024 Active User %	474
DAX query	12
Visual display	177
Other	286
📅 Run in DAX Query View	
⌚ Exec Sum Selected	172
Visual display	138

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

The visual that has the slowest load time is [answer choice].

Adoption Button
Exec Sum Selected
August 2024 Active User %
August 2024 Active and Enabled Users

[Answer choice] waits the longest for other visuals to load.

Adoption Button
Exec Sum Selected
August 2024 Active User %
August 2024 Active and Enabled Users

## Answer:

### Answer Area

The visual that has the slowest load time is [answer choice].

Adoption Button
Exec Sum Selected
August 2024 Active User %
August 2024 Active and Enabled Users

[Answer choice] waits the longest for other visuals to load.

Adoption Button
Exec Sum Selected
August 2024 Active User %
August 2024 Active and Enabled Users

## Explanation:

The visual that has the slowest load time is [answer choice]."

This refers to the visual that takes the longest time to fully render.

Based on the selection, "**August 2024 Active User %**" is the visual with the longest individual load time.

This is often due to complex DAX calculations, many filters, or large datasets.

waits the longest for other visuals to load."

This refers to the visual that starts loading only after other visuals finish, not necessarily due to its own complexity.

The same visual "**August 2024 Active User %**" was selected, meaning:

It is also the last visual to begin loading,

Likely because it depends on outputs of other visuals or has lower priority in the rendering queue.

## DRAG DROP

You use Microsoft Power BI Desktop to preview a query in Power Query Editor. The query contains a column named Location Name.

You need to identify the maximum length of each value in the Location Name column without changing the data.

Which actions should you perform in sequence? To answer, drag the appropriate actions to the correct order. Each action 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.

NOTE: Each correct selection is worth one point.

### Actions

From the Transform tab, select **Extract**, and then select **Length**.

From the View tab, select **Column distribution**.

From the View tab, select **Column profile**.

Group the value distribution by text length.

Select the Location Name column.

### Answer Area

Step 1:

Step 2: Set Column Profiling based upon entire dataset.

Step 3:

Step 4:

### Answer:

### Actions

From the Transform tab, select **Extract**, and then select **Length**.

From the View tab, select **Column distribution**.

From the View tab, select **Column profile**.

Group the value distribution by text length.

Select the Location Name column.

### Answer Area

Step 1: Select the Location Name column.

Step 2: Set Column Profiling based upon entire dataset.

Step 3: From the View tab, select **Column profile**.

Step 4: Group the value distribution by text length.

### Explanation:

Step 1: Select the Location Name column

You begin by selecting the column you want to analyze.

Step 2: Set Column Profiling based upon entire dataset

Ensures Power Query analyzes all rows, not just the top 1,000 preview rows.

Done via: View > Column profiling > Based on entire dataset.

Step 3: From the View tab, select **Column profile**

This enables the detailed data profile pane, which shows:

Value distribution

Min/Max

Distinct values

Empty count

Data type statistics

Step 4: Group the value distribution by text length

You group values based on length of text.

This step helps spot anomalies — e.g., names that are too short or too long compared to the average.

### Question: 285

CertyIQ

You plan to generate a line chart to visualize and compare the last six months of sales data for two departments.

You need to increase the accessibility of the visual.

What should you do?

- A.Configure a unique marker for each series.
- B.Configure a distinct color for each series.
- C.Replace long text with abbreviations and acronyms.
- D.Move important information to a tooltip.

### Answer: A

#### Explanation:

A. Configure a unique marker for each series.

Line charts typically use color to distinguish between data series.

However, relying on color alone can create accessibility issues, especially for users with color vision deficiencies (color blindness).

By adding unique markers (e.g., circles, squares, triangles) to each series:

The lines become distinguishable even without color.

This significantly improves accessibility for all users.

Why not the others?

B. Configure a distinct color for each series

While helpful, it relies solely on color, which is not accessible to all users.

It's better to combine color with shape/marker.

C. Replace long text with abbreviations and acronyms

This can reduce clarity, especially for screen reader users or those unfamiliar with the acronyms.

D. Move important information to a tooltip

Tooltips are not always accessible—screen readers and keyboard users may not benefit from them.

Key information should be visibly available in the chart, not hidden.

CertyIQ

**Question: 286**

You have a Power BI report. The report contains a single report page that uses the default theme.

You need to configure the report page to match the formatting shown in the following exhibit.



What should you change on the report page?

- A.the wallpaper color only
- B.the canvas background color only
- C.the wallpaper color and the canvas background color only
- D.the canvas background image only

**Answer: C**

**Explanation:**

C. The wallpaper color and the canvas background color only.

Use this if you're aiming for consistent branding or styling across the whole report page, including both:

The visual workspace (canvas)

The surrounding area (wallpaper)

## HOTSPOT

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

### Current Year Sales vs Plan

Current Year = dark bar, Plan = light bar

600

400

200

0

Product A

Product B

Product C

Product D

You plan to modify the visual by changing the column spacing and adding percent change labels as shown in the following exhibit.

### Current Year Sales vs Plan

Current Year = dark bar, Plan = light bar

400

200

0

Product A

Product B

Product C

Product D

-7.1%

-9.1%

4.9%

2.4%

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

### Answer Area

To change the column spacing:

- Decrease the space between categories.
- Enable overlap for every series.
- Enable overlap for the Plan series.
- Increase the space between categories.

To add the percent change labels:

- Enable data labels for every series.
- Enable data labels for the Plan series.
- Enable the title on the X-axis.
- Enable the title on the Y-axis.

### Answer:

#### Answer Area

To change the column spacing:

- Decrease the space between categories.
- Enable overlap for every series.**
- Enable overlap for the Plan series.
- Increase the space between categories.

To add the percent change labels:

- Enable data labels for every series.
- Enable data labels for the Plan series.**
- Enable the title on the X-axis.
- Enable the title on the Y-axis.

### Explanation:

To change the column spacing.

#### **Enable overlap for every series.**

In a clustered column chart, each category typically shows multiple columns side by side — one for each series.

If spacing is too wide, the columns might appear too spread out, making comparison difficult.

Enabling overlap for every series causes the bars to overlay or partially stack, reducing visual clutter and improving comparison.

It effectively reduces the gap between series columns for each category — which is interpreted here as "column spacing."

To add the percent change labels.

#### **Enable data labels for the Plan series.**

Data labels display values (or percent changes) directly on the chart.

If percent changes are tied specifically to the Plan series, enabling data labels only for that series makes sense.

It improves clarity by not overcrowding the chart with labels from every series.

CertyIQ

### Question: 288

You are creating a visual in a Power BI report. The associated semantic model contains sales from the last four years for three products.

You need to display the total sales by quarter categorized by product. The visual must display trends in both total sales and individual product sales.

Which type of visual should you use?

- A.area chart
- B.clustered column chart
- C.stacked area chart
- D.line chart

### Answer: C

#### Explanation:

Stacked Area Chart:

Total Sales Trend: The top edge of the stacked area chart clearly shows the trend of the total sales over time (quarters in this case).

Individual Product Sales Trend: Each "layer" or "stack" within the chart represents an individual product's sales, allowing you to see how each product's sales contribute to the total and their own individual trends over time. This is excellent for part-to-whole relationships and trends.

CertyIQ

### Question: 289

You have a Power BI report that contains a clustered bar chart. The chart has an X-axis named Sales and a Y-axis named Year. The chart displays sales data for the years 2020 through 2024.

You need to create a visual calculation to show a cumulative total of sales that is equal to the sum of the current year's sales plus all the sales from the previous year.

Which DAX expression should you use?

- A.MOVINGAVERAGE([Sales], 4)
- B.RUNNINGSUM([Year])
- C.CALCULATE ( [Sales], 'Date'[Year] <= MAX ( 'Date'[Year] ) )
- D.RUNNINGSUM([Sales])

### Answer: C

#### Explanation:

C. CALCULATE ( [Sales], 'Date'[Year] <= MAX ( 'Date'[Year] ) )

You want to compute a cumulative total (also called a running total) of sales by year, where the value for each year equals the sum of sales for that year and all previous years.

**Why the other options are incorrect:**

A. MOVINGAVERAGE([Sales], 4)

Not a valid built-in DAX function.

Even if it were, a moving average is not the same as a cumulative total.

B. RUNNINGSUM([Year])

This doesn't make sense — you're summing years, not sales.

RUNNINGSUM isn't a native DAX function either.

C. RUNNINGSUM([Sales])

Again, not a standard DAX function.

Cumulative totals in DAX require CALCULATE with a filter, or use TOTALYTD, TOTALMTD, etc., for time-based totals.

**Question: 290**

CertyIQ

DRAG DROP

-

You are using Power BI Desktop to profile data in Power Query Editor.

You need to review the percentage of errors and the maximum value of each column.

Which options should you use in Power Query Editor? To answer, drag the appropriate options to the correct requirements. Each option 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.

NOTE: Each correct selection is worth one point.

**Options**

Column distribution

Column quality

Monospaced

Column profile

Formula Bar

**Answer Area**

**Option**

Review the percentage of errors:

Review the maximum value:

**Answer:**

## Options

- Column distribution
- Column quality
- Monospaced
- Column profile
- Formula Bar

## Answer Area

Review the percentage of errors:

## Option

Column quality

Review the maximum value:

Column profile

### Explanation:

Column quality: Shows the percentage of valid, error, and empty values for each column.

Column profile: Provides a more detailed statistical profile for a selected column, including min/max values, average, standard deviation, count of empty/error/distinct/unique values, and a value distribution chart.

## Question: 291

CertyIQ

You are creating a Power BI report that will contain multiple visuals.

You need to ensure that the report is accessible to users who use a screen reader.

Which two configurations should you perform? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.consistent fonts for each visual
- B.alt text for each visual
- C.the tab order for each page
- D.consistent colors for each visual
- E.Play Axis for each page

### Answer: BC

### Explanation:

#### **B. Alt text for each visual.**

Alt text helps screen reader users understand what a visual represents.

Each chart or image should have a clear, concise description of what it shows.

Essential for accessibility compliance (e.g., WCAG, Section 508).

#### **C. The tab order for each page.**

Tab order defines how users navigate through visuals using the keyboard.

Proper tab order ensures a logical and intuitive navigation experience, which is critical for users who can't use a mouse.

Set this under View → Selection → Tab Order in Power BI Desktop.

### Question: 292

CertyIQ

You have a Power BI report that contains a stacked bar chart.

You need to add a new field to the legend. The field must combine information from separate columns.

What should you create?

- A.a calculated column
- B.a dynamic format string
- C.a measure
- D.a calculation group

### Answer: A

#### Explanation:

A. Calculated column .

A calculated column can concatenate or combine values from multiple existing columns (e.g., "Region" & " - " & "Category").

Since the legend expects a column for categorization, a calculated column works perfectly.

You can then drag this new column to the "Legend" field well in the visual.

### Question: 293

CertyIQ

#### HOTSPOT -

You have a Power BI tenant that hosts the datasets shown in the following table.

Name	Contents	Used to generate
Sales	Sales targets Sales data Employee salary data	Daily performance reports Quarterly reports used to calculate bonuses
Operations	Environmental sensor data	Reports that show average sensor readings over time
Finance	Financial transaction data	Budget planning reports Monthly board reports

You have the following requirements:

The export of reports that contain Personally Identifiable Information (PII) must be prevented.

Data used for financial decisions must be reviewed and approved before use.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
The Sales dataset requires a sensitivity label.	<input type="radio"/>	<input type="radio"/>
The Operations dataset requires a sensitivity label and must be certified.	<input type="radio"/>	<input type="radio"/>
The Finance dataset requires a sensitivity label and must be certified.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
The Sales dataset requires a sensitivity label.	<input checked="" type="radio"/>	<input type="radio"/>
The Operations dataset requires a sensitivity label and must be certified.	<input type="radio"/>	<input checked="" type="radio"/>
The Finance dataset requires a sensitivity label and must be certified.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Yes

No

Yes

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-sensitivity-label-overview>

## Question: 294

CertyIQ

You have a Power BI tenant.

You have reports that use financial datasets and are exported as PDF files.

You need to ensure that the reports are encrypted.

What should you implement?

- A. Microsoft Intune policies
- B. row-level security (RLS)
- C. sensitivity labels
- D. dataset certifications

Answer: C

Explanation:

When you create a sensitivity label, you can restrict access to content that the label will be applied to.

When a document or email is encrypted, access to the content is restricted, so that it:

Can be decrypted only by users authorized by the label's encryption settings.

Remains encrypted no matter where it resides, inside or outside your organization, even if the file's renamed.

Incorrect:

Not B: Row-level security (RLS) with Power BI can be used to restrict data access for given users. Filters restrict data access at the row level, and you can define filters within roles.

Current limitations for row-level security:

Reference:

<https://docs.microsoft.com/en-us/microsoft-365/compliance/encryption-sensitivity-labels>

CertyIQ

### Question: 295

You have a Microsoft Excel file on a file server.

You create a Power BI report and import a table from the Excel file.

You publish the report.

You need to ensure that the data refreshes every four hours.

What should you do first?

- A. Upload the Excel file to a Power BI workspace.
- B. Create a subscription to the report.
- C. Deploy an on-premises data gateway.
- D. Edit the data source credentials.

Answer: C

Explanation:

You can scheduled refresh for the On-premises data gateway (personal mode) and the On-premises data gateway. You specify refresh options in the following areas of the Power BI service: Gateway connection, Data source credentials, and Scheduled refresh.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-scheduled-refresh>

CertyIQ

### Question: 296

You have a dataset that is used infrequently and refreshes every hour.

You receive a notification that the refresh was disabled due to inactivity.

Which two actions will cause the scheduled refresh schedule to resume? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Enable query caching for the dataset.
- B. Import the dataset to Microsoft Excel.
- C. From the Power BI service, open a dashboard that uses the dataset.
- D. From the Power BI service, open a report that uses the dataset.
- E. From PowerShell, run the get-powerbireport cmdlet.

Answer: CD

Explanation:

After two months of inactivity, scheduled refresh on your dataset is paused. A dataset is considered inactive when no user has visited any dashboard or report built on the dataset. At that time, the dataset owner is sent an email indicating the scheduled refresh is paused. The refresh schedule for the dataset is then displayed as disabled. To resume scheduled refresh, simply revisit any dashboard or report built on the dataset.

Incorrect:

Not E: get-powerbireport retrieves a list of Power BI reports that match the specified search criteria and scope.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/refresh-scheduled-refresh>

## Question: 297

CertyIQ

You have a Power BI workspace that contains a dataset, a report, and a dashboard. The following groups have access:

- ⇒ External users can access the dashboard.
- ⇒ Managers can access the dashboard and a manager-specific report.
- ⇒ Employees can access the dashboard and a row-level security (RLS) constrained report.

You need all users, including the external users, to be able to tag workspace administrators if they identify an issue with the dashboard. The solution must ensure that other users see the issues that were raised.

What should you use?

- A. comments
- B. chat in Microsoft Teams
- C. alerts
- D. subscriptions

## Answer: A

**Explanation:**

Add a personal comment or start a conversation about a dashboard or report with your colleagues. The comment feature is just one of the ways a business user can collaborate with others.

Note: Comments can be added to an entire dashboard, to individual visuals on a dashboard, to a report page, to a paginated report, and to individual visuals on a report page. Add a general comment or add a comment targeted at specific colleagues.

Reference:

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-comment>

## Question: 298

CertyIQ

You have a PBIX file that imports several tables from an Azure SQL database.

The data will be migrated to another Azure SQL database.

You need to change the connections in the PBIX file. The solution must minimize administrative effort.

What should you do?

- A. From Power Query Editor, create new queries.
- B. From Power Query Editor, modify the source of each query.
- C. Create a PBIT file, open the file, and change the data sources when prompted.
- D. Modify the Data source settings.

## Answer: D

**Explanation:**

Open the PBIX file with Microsoft Power BI Desktop.

Then choose File -> Options and settings -> Data source settings >Right click data sources and change source.

Note:

Incorrect:

Not C: PBIT is a template file.

The PBIT file keeps your report structure and contains 'DataModelSchema File' instead of "DataModel File". However, If you choose import mode, the PBIX file stores all imported data from data sources and the report structure.

Reference:

<https://windowsreport.com/open-pbix-file/>

CertyIQ

### Question: 299

You have a Power BI workspace that contains several reports.

You need to provide a user with the ability to create a dashboard that will use the visuals from the reports. What should you do?

- A. Create a row-level security (RLS) role and add the user to the role.
- B. Share the reports with the user.
- C. Grant the Read permission for the datasets to the user.
- D. Add the user as a member of the workspace.
- E. Add the user as a Viewer of the workspace.

Answer: D

Explanation:

To grant access to a new workspace, assign those user groups or individuals to one of the workspace roles: Admin, Member, Contributor, or Viewer.

Workspace roles -

Capability	Admin	Member	Contributor	Viewer
Create, edit, and delete content, such as reports, in the workspace.	✓	✓	✓	
Publish reports to the workspace, delete content.	✓	✓	✓	
Create a report in another workspace based on a dataset in this workspace. <sup>3</sup>	✓	✓	✓	
Copy a report. <sup>3</sup>	✓	✓	✓	

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

CertyIQ

**Question: 300**

DRAG DROP -

You have a Power BI workspace that contains a single-page report named Sales.

You need to add all the visuals from Sales to a dashboard. The solution must ensure that additional visuals added to the page are added automatically to the dashboard.

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.

Select and Place:

**Actions**

Open Power BI Desktop.

Pin the page.

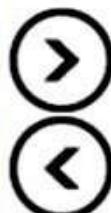
Pin each visual.

Open powerbi.com.

Open the **Sales** report.

Create a new report.

**Answer Area**



**Answer:**

**Actions**

Open Power BI Desktop.

Pin each visual.

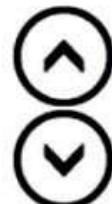
Create a new report.

**Answer Area**

Open powerbi.com.

Open the **Sales** report.

Pin the page.



**Explanation:**

An entire report page can be pinned to a dashboard, which is called pinning a live tile. It's called a live tile because you can interact with the tile on the dashboard.

Unlike with individual visualization tiles, changes made in the report are automatically synced with the

dashboard.

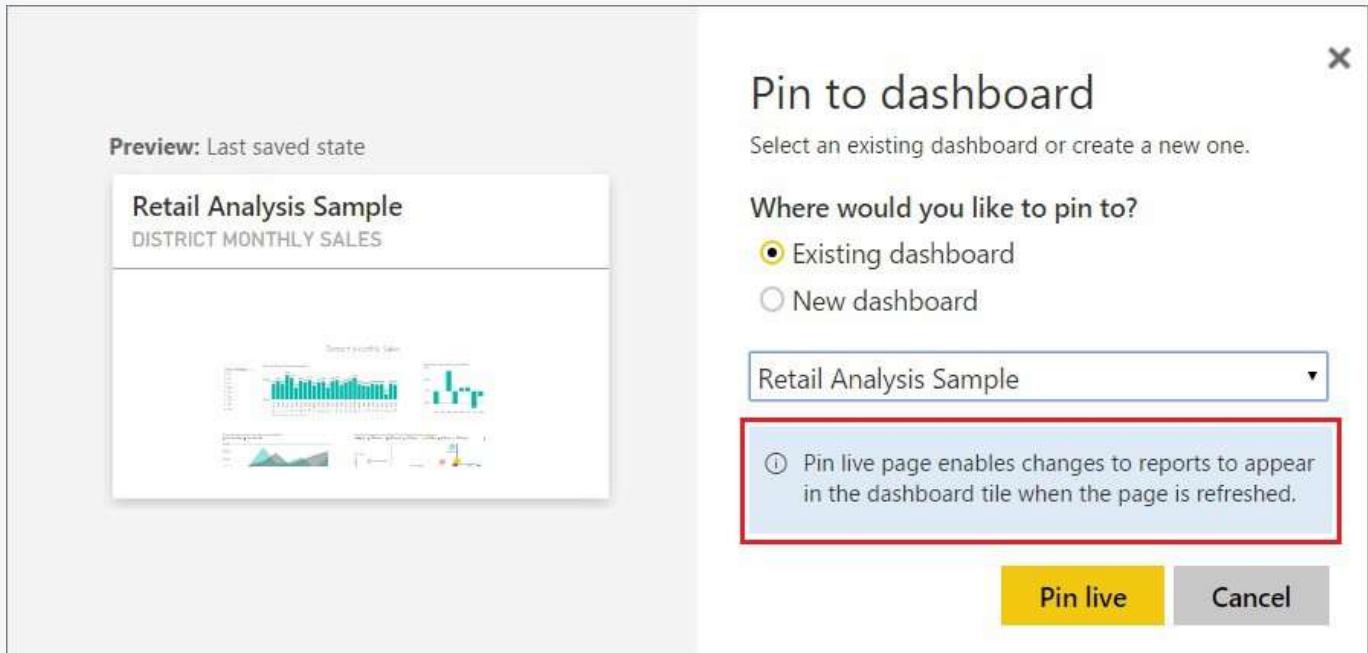
Step 2: Open the Sales report -

Step 3: Pin the page.

1. Open a report in Editing view.

2. With no visualizations selected, from the menu bar, select Pin to a dashboard.

3. Pin the tile to an existing dashboard or to a new dashboard. Notice the highlighted text: Pin live page enables changes to reports to appear in the dashboard tile when the page is refreshed.



4. Select Pin live. A Success message (near the top right corner) lets you know the page was added, as a tile, to your dashboard.

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-dashboard-pin-live-tile-from-report>

## Question: 301

CertyIQ

You have a report in Power BI named report1 that is based on a shared dataset.

You need to minimize the risk of data exfiltration for report. The solution must prevent other reports from being affected.

What should you do?

- A. Clear Allow recipients to share your dashboard and Allow users to build new content using the underlying datasets for the dataset.
- B. Apply row-level security (RLS) to the shared dataset.
- C. Select the Allow end users to export both summarized and underlying data from the service or Report Server Export data option for the report.
- D. Select the Don't allow end users to export any data from the service or Report Server Export data option for the report.

## Answer: D

### Explanation:

Besides the various permissions you can set, there are also two different options to disable the export functionality. First of all is the Export data in general and second the Export to Excel as a specific setting. Both have the same setup for permissions

Export Data -

#### Export data

*Enabled for the entire organization*

Users in the organization can export data from a tile or visualization. This also controls Analyze in Excel, export to .csv, dataset downloads, and Power BI Service Live Connect features.



Apply to:

- The entire organization
- Specific security groups
- Except specific security groups

Apply

Cancel

Reference:

<https://data-marc.com/2020/04/13/power-bi-governance-why-you-should-consider-to-disable-export-to-excel/>

### Question: 302

CertyIQ

In Power BI Desktop, you are creating visualizations in a report based on an imported dataset. You need to allow Power BI users to export the summarized data used to create the visualizations but prevent the users from exporting the underlying data. What should you do?

- A. From the Power BI service, configure the dataset permissions.
- B. From Power BI Desktop, configure the Data Load settings for the current file.
- C. From Power BI Desktop, modify the data source permissions.
- D. From Power BI Desktop, configure the Report settings for the current file.

**Answer: D**

**Explanation:**

1.) in Power BI Desktop > File > Options > Report Settings > Export data > Allow end users to export data with current layout, summarize data and underlying data from the service or Report Server.

2.) in Power BI Service in Report Settings > Export data section I found: "Choose the type of data you allow your end users to export." Here you can select one option from:

- Summarized data and data with current layout
- Summarized data, with current layout and underlying data
- None

But this option is missing from offered answers, the correct answer is D.

A is incorrect as in Manage Dataset Permission you can grant access:

- allow recipients to modify dataset,
- allow recipients to share this dataset,
- allow recipients to build content with the data associated with dataset,
- send an email notification

or remove granted reshare, remove build, remove write, remove access

So here you can not change or limit data export.

<https://learn.microsoft.com/en-us/power-bi/connect-data/service-datasets-permissions>

CertyIQ

### Question: 303

You have a Power BI report that uses row-level security (RLS).

You need to transfer RLS membership maintenance to an Azure network security team. The solution must NOT provide the Azure network security team with the ability to manage reports, datasets, or dashboards. What should you do?

- A. Grant the Read and Build permissions for the Power BI datasets to the Azure network security team.
- B. Configure custom instructions for the Request access feature that instructs users to contact the Azure network security team.
- C. Instruct the Azure network security team to create security groups. Configure RLS to use the groups.
- D. Add the Azure network security team as members of the RLS role.

### Answer: C

#### Explanation:

Configure row-level security group membership, Working with members

Add members -

In the Power BI service, you can add a member to the role by typing in the email address or name of the user or security group.

You can use the following groups to set up row level security.

Distribution Group -

Mail-enabled Group -

Security Group -

Incorrect:

Not A: Build permission applies to datasets. When you give users Build permission, they can build new content on your dataset, such as reports, dashboards, pinned tiles from Q&A, paginated reports, and Insights Discovery.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

**Question: 304**

You have four sales regions. Each region has multiple sales managers.

You implement row-level security (RLS) in a data model. You assign the relevant mail-enabled security group to each role.

You have sales reports that enable analysis by region. The sales managers can view the sales records of their region. The sales managers are prevented from viewing records from other regions.

A sales manager changes to a different region.

You need to ensure that the sales manager can see the correct sales data.

What should you do?

- A. Change the Microsoft Power BI license type of the sales manager.
- B. From Microsoft Power BI Desktop, edit the Row-Level Security setting for the reports.
- C. Manage the permissions of the underlying dataset.
- D. Request that the sales manager be added to the correct Azure Active Directory group.

**Answer: D****Explanation:**

You can use the following groups to set up row level security.

\* Distribution Group

\* Mail-enabled Group - This group also contains a list of email addresses of members and can also be used to control access to OneDrive and SharePoint.

The Mail-Enabled Security Group can be created in the Office 365 Admin Portal.

\* Security Group - This is also known as an Active Directory Security Group. This group lives within Active Directory and Azure Active Directory.

**Reference:**

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

<https://www.fourmoo.com/2020/04/01/power-bi-which-groups-can-be-used-to-set-permissions-in-power-bi/>

**Question: 305**

You have more than 100 published datasets.

Ten of the datasets were verified to meet your corporate quality standards.

You need to ensure that the 10 verified datasets appear at the top of the list of published datasets whenever users search for existing datasets.

What should you do?

- A. Promote the datasets.
- B. Certify the datasets.
- C. Feature the dataset on the home page.
- D. Publish the datasets in an app.

**Answer: B****Explanation:**

Once logged in, you will be presented with a list of datasets that you can access from your various workspaces. This is one reason why having official datasets promoted and certified is recommended, as these will appear at the top of the list, with certified datasets appearing before promoted datasets.

Note: Power BI provides two ways you can endorse your valuable, high-quality content to increase its visibility: promotion and certification.

Promotion: Promotion is a way to highlight content you think is valuable and worthwhile for others to use. It encourages the collaborative use and spread of content within an organization.

Any content owner, as well as any member with write permissions on the workspace where the content is

located, can promote the content when they think it's good enough for sharing.

Certification: Certification means that the content meets the organization's quality standards and can be regarded as reliable, authoritative, and ready for use across the organization.

Currently it is possible to endorse

Datasets -

Dataflows -

Reports -

Apps -

If dataset discoverability has been enabled in your organization, endorsed datasets can be made discoverable. When a dataset is discoverable, users who don't have access to it will be able to find it and request access.

Reference:

<https://exceleratorbi.com.au/new-power-bi-reports-golden-dataset/> <https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-endorse-content>

### Question: 306

CertyIQ

DRAG DROP -

You have a Microsoft Power BI workspace.

You need to grant the user capabilities shown in the following table.

User name	Task
User1	Create and publish apps.
User2	Publish reports to the workspace and delete dashboards.

The solution must use the principle of least privilege.

Which user role should you assign to each user? To answer, drag the appropriate roles to the correct users. Each role may be used once, more than once, or not at all. You may need to drag the split bar.

NOTE: Each correct selection is worth one point.

Select and Place:

## Roles

Admin	Contributor
Member	Viewer

## Answer Area

User1:

User2:

## Answer:

### Roles

Admin	Contributor
Member	Viewer

## Answer Area

User1:  Member

User2:  Contributor

## Explanation:

Box 1: **Member** -

Only Admin and Member can publish, unpublish, and change permissions for an app.

Incorrect:

Contributors can update the app associated with the workspace, if the workspace Admin delegates this permission to them. However, they can't publish a new app or change who has permission to it.

Box 2: **Contributor** -

Admin , Member and Contributor can create, edit, and delete content, such as reports, in the workspace.

Note: Contributor - This role can access and interact with reports and dashboards. Additionally, this role can create, edit, copy, and delete items in a workspace, publish reports, schedule refreshes, and modify gateways.

Incorrect:

Viewer - This role provides read only access to workspace items. Read access does provide report / dashboard consumers the ability to not only view, but also interact with visuals. Interaction does not mean changing a visual.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-roles-new-workspaces>

<https://www.mssqltips.com/sqlservertip/6487/power-bi-workspace-permissions-and-roles>

## Question: 307

CertyIQ

You create a dashboard by using the Microsoft Power BI Service. The dashboard contains a card visual that shows total sales from the current year.

You grant users access to the dashboard by using the Viewer role on the workspace.

A user wants to receive daily notifications of the number shown on the card visual.

You need to automate the notifications.

What should you do?

- A. Create a subscription.
- B. Create a data alert.
- C. Share the dashboard to the user.
- D. Tag the user in a comment.

### Answer: A

### Explanation:

A is correct, you need a subscription, not an alert as alerts don't include a snapshot and they will only be sent based on a certain condition whereas here you want daily notifications, not just when the value exceeds a certain threshold.

In Power BI, subscriptions allow users to automatically receive scheduled reports or dashboard updates, such as daily notifications, based on the data they are interested in. By creating a subscription to the dashboard, the user will get daily updates on the total sales figure shown on the card visual.

### Why other options are incorrect:

- B. Create a data alert: Alerts notify users when data meets specific conditions, but this doesn't send daily updates.
- C. Share the dashboard: Sharing alone doesn't automate notifications.
- D. Tag the user in a comment: This is for communication within the dashboard, not for automated notifications.

**Question: 308**

You have a Power BI workspace named Workspace1 that contains a dataset named DS1 and a report named RPT1. A user wants to create a report by using the data in DS1 and publish the report to another workspace. You need to provide the user with the appropriate access. The solution must minimize the number of access permissions granted to the user. What should you do?

- A. Add the user as a Viewer of Workspace1.
- B. Grant the Build permission for DS1 to the user.
- C. Share RPT1 with the user.
- D. Add the user as a member of Workspace1.

**Answer: B****Explanation:**

More granular permissions -

Power BI provides the Build permission as a complement to the existing permissions, Read and Reshare. All users who already had Read permission for datasets via app permissions, sharing, or workspace access at that time also got Build permission for those same datasets. They got Build permission automatically because Read permission already granted them the right to build new content on top of the dataset, by using Analyze in Excel or Export.

With this more granular Build permission, you can choose who can only view the content in the existing report or dashboard and who can create content connected to the underlying datasets.

If your dataset is being used by a report outside the dataset workspace, you can't delete that dataset. Instead, you see an error message.

**Reference:**

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions>

**Question: 309**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You publish an app to the entire organization.

Does this meet the goal?

- A. Yes
- B. No

**Answer: A****Explanation:**

The answer is A..Yes

When you publish an app in Power BI, you can select the specific content you want to include in the app, such

as reports and dashboards, and specify the access levels for each item. You can also choose to make the app available to specific users or groups, or publish it to the entire organization.

If you publish an app to the entire organization, all users in your organization would have access to the app and its included content, as long as they have a Power BI license. You can set the appropriate access level for each item in the app, such as read-only access for the selected dashboard and reports, to ensure that users only have access to the content they need.

Therefore, publishing an app to the entire organization with the appropriate access levels for the dashboard and reports would meet the goal of granting all organizational users read access to one dashboard and three reports.

### Question: 310

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You enable included in app for all assets.

Does this meet the goal?

A. Yes

B. No

### Answer: B

#### Explanation:

You need to specify the dashboard and the three reports to be included in the app.

Instead: You create an Azure Active Directory group that contains all the users. You share each selected report and the one dashboard to the group.

Note: A published App can provide the required access.

When the dashboards and reports in your workspace are ready, you choose which dashboards and reports you want to publish, then publish them as an app.

In Power BI, you can create official packaged content, then distribute it to a broad audience as an app. You create apps in workspaces, where you can collaborate on Power BI content with your colleagues. Then you can publish the finished app to large groups of people in your organization.

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-create-distribute-apps>

### Question: 311

CertyIQ

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You assign all the users the Viewer role to the workspace.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

In this way all users will see all workspace content not only the one dashboard and 3 reports

### Question: 312

CertyIQ

From Power BI Desktop, you publish a new dataset and report to a Power BI workspace. The dataset has a row-level security (RLS) role named HR.

You need to ensure that the HR team members have RLS applied when they view reports based on the dataset. What should you do?

- A. From powerbi.com, add users to the HR role for the dataset.
- B. From powerbi.com, share the dataset to the HR team members.
- C. From Power BI Desktop, change the Row-Level Security settings.
- D. From Power BI Desktop, import a table that contains the HR team members.

**Answer: A**

**Explanation:**

Working with members -

Add members -

In the Power BI service, you can add a member to the role by typing in the email address or name of the user or security group.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

### Question: 313

CertyIQ

You have a Power BI dashboard that monitors the quality of manufacturing processes. The dashboard contains the following elements:

- ⇒ A line chart that shows the number of defective products manufactured by day
- ⇒ A KPI visual that shows the current daily percentage of defective products manufactured

You need to be notified when the daily percentage of defective products manufactured exceeds 3%. What should you create?

- A. a subscription
- B. an alert
- C. a smart narrative visual
- D. a Q&A visual

**Answer: B**

**Explanation:**

Set alerts in the Power BI service to notify you when data on a dashboard changes above or below limits you

set. Alerts can be set on tiles pinned from report visuals or from Power BI Q&A, and only on gauges, KPIs, and cards.

Reference:

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-alerts>

### Question: 314

CertyIQ

You create a report by using Microsoft Power BI Desktop.

The report uses data from a Microsoft SQL Server Analysis Services (SSAS) cube located on your company's internal network.

You plan to publish the report to the Power BI Service.

What should you implement to ensure that users who consume the report from the Power BI Service have the most up-to-date data from the cube?

- A. an OData feed
- B. an On-premises data gateway
- C. a subscription
- D. a scheduled refresh of the dataset

### Answer: B

Explanation:

After you install the on-premises data gateway, you need to add data sources that can be used with the gateway. You can work with gateways and SQL Server

Analysis Services (SSAS) data sources that are used either for scheduled refresh or for live connections.

Note: Power BI service is a cloud-based business analytics and data visualization service that enables anyone to visualize and analyze data with greater speed, efficiency, and understanding.

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-gateway-enterprise-manage-ssas>

### Question: 315

CertyIQ

You have five sales regions. Each region is assigned a single salesperson.

You have an imported dataset that has a dynamic row-level security (RLS) role named Sales. The Sales role filters sales transaction data by salesperson.

Salespeople must see only the data from their region.

You publish the dataset to powerbi.com, set RLS role membership, and distribute the dataset and related reports to the salespeople.

A salesperson reports that she believes she should see more data.

You need to verify what data the salesperson currently sees.

What should you do?

- A. Use the Test as role option to view data as the salesperson's user account.
- B. Use the Test as role option to view data as the Sales role.
- C. Instruct the salesperson to open the report in Microsoft Power BI Desktop.
- D. Filter the data in the reports to match the intended logic in the filter on the sales transaction table.

### Answer: A

Explanation:

A, to be able to see what the specific salesperson sees (and compare it to what she should see) you should

test the report as that user account since the RLS is dynamic and based on the user accounts.

### Question: 316

CertyIQ

You have multiple dashboards.

You need to ensure that when users browse the available dashboards from powerbi.com, they can see which dashboards contain Personally Identifiable

Information (PII). The solution must minimize configuration effort and impact on the dashboard design.

What should you use?

- A. Microsoft Information Protection sensitivity labels
- B. tiles
- C. comments
- D. Active Directory groups

### Answer: A

#### Explanation:

In the Power BI service, sensitivity labels can be applied to datasets, reports, dashboards, and dataflows.

Sensitivity labels on reports, dashboards, datasets, and dataflows are visible from many places in the Power BI service. Sensitivity labels on reports and dashboards are also visible in the Power BI iOS and Android mobile apps and in embedded visuals. In Desktop, you can see the sensitivity label in the status bar.

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-security-sensitivity-label-overview>

### Question: 317

CertyIQ

HOTSPOT -

You have a dataset that has the permissions shown in the following exhibit.

+ Add user

Links	Direct access	Email Address ↑	Permissions	
	People and groups with access			
 Ben Smith		bensmith@contoso.com	Owner	
 corp		corp@contoso.com	Read, Reshare, Build	...
 finance		finance@contoso.com	Read, Build	...

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

Users in the finance group can [answer choice] the dataset.

assign sensitivity labels to  
use Analyze in Excel with  
delete

Users in the corp group can [answer choice] the dataset.

grant the Build permission for  
grant the Read permission for  
remove a table from

Answer:

## Answer Area

Users in the finance group can [answer choice] the dataset.

assign sensitivity labels to  
use Analyze in Excel with  
delete

Users in the corp group can [answer choice] the dataset.

grant the Build permission for  
grant the Read permission for  
remove a table from

Explanation:

### Box 1: use Analyze in Excel -

Build permission applies to datasets. When you give users Build permission, they can build new content on your dataset, such as reports, dashboards, pinned tiles from Q&A, paginated reports, and Insights Discovery.

Users also need Build permissions to work with the data outside Power BI:

To export the underlying data.

To build new content on the dataset such as with Analyze in Excel.

To access the data via the XMLA endpoint.

### Box 2: Grant build permission

see: <https://learn.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions>

"Say you have Reshare and Build permission on a dataset. When you share a report or dashboard built on that dataset, you can specify that the recipients also get Build permission for the underlying dataset."

Reference:

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions> <https://data-marc.com/2021/07/30/transform-a-local-into-a-global-power-bi-solution-request-access-to-content/>

**Question: 318****CertyIQ**

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have five reports and two dashboards in a workspace.

You need to grant all organizational users read access to one dashboard and three reports.

Solution: You create an Azure Active Directory group that contains all the users. You share each selected report and the one dashboard to the group.

Does this meet the goal?

A. Yes

B. No

**Answer: A****Explanation:**

Yes, from the documentation a suggestion made there to share with more than 100 separate users is to "Share with a user group that contains all the

**Question: 319****CertyIQ**

DRAG DROP -

You have a Power BI table named Customer that contains a field named Email Address.

You discover that multiple records contain the same email address.

You need to create a calculated column to identify which records have duplicate email addresses.

How should you complete the DAX expression for the calculated column? To answer, drag the appropriate values to the correct targets. Each value 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.

NOTE: Each correct selection is worth one point.

Select and Place:

## Values

## Answer Area

Count Email =

ALL

VAR Email = [Email Address]

CALCULATE

RETURN

COUNTROWS

(

EVALUATE

[Customer],

SUM

[Customer],

SUMX

Customer[Email Address] = Email

)

Answer:

## Values

## Answer Area

Count Email =

ALL

VAR Email = [Email Address]

CALCULATE

RETURN

COUNTROWS

CALCULATE (

EVALUATE

COUNTROWS [Customer],

SUM

ALL [Customer],

SUMX

Customer[Email Address] = Email

)

Explanation:

Calculate

Countrows

All

1. `CALCULATE` :

- This modifies the filter context and ensures the calculation adapts based on the provided conditions.

2. `COUNTROWS(Customer)` :

- Counts the rows in the table, which is necessary to determine how many instances of an email exist.

3. `ALL(Customer)` :

- Removes any filters that might limit the rows being evaluated, ensuring the calculation is performed across the entire `Customer` table.

**Question: 320**

CertyIQ

DRAG DROP

-

You publish a dataset that contains data from an on-premises Microsoft SQL Server database.

The dataset must be refreshed daily.

You need to ensure that the Power BI service can connect to the database and refresh the dataset.

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**

**Answer Area**

Configure a scheduled refresh

Configure a virtual network data gateway

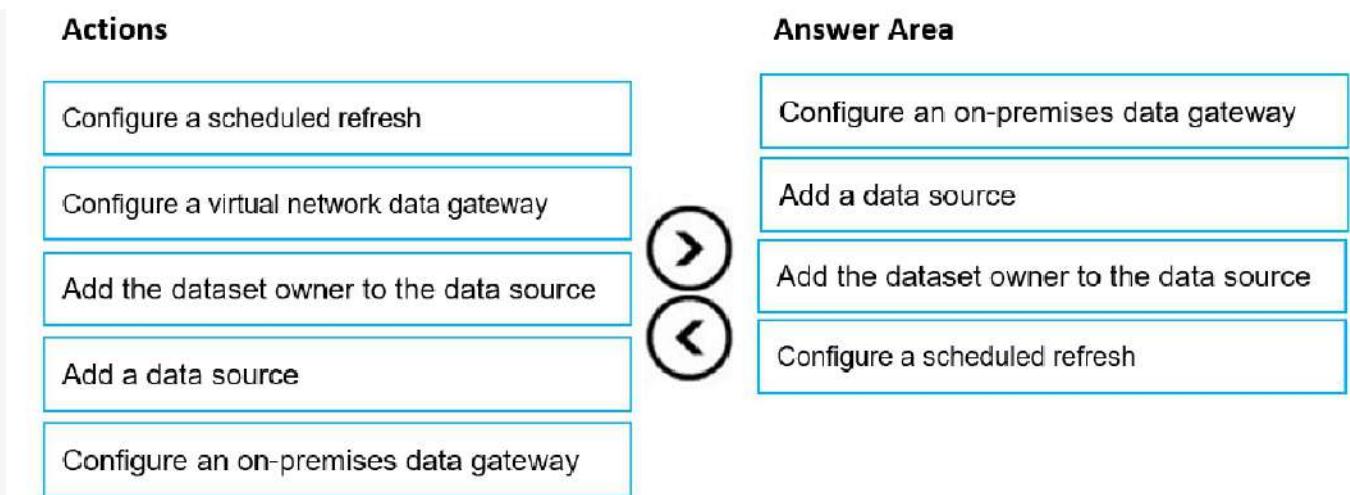
Add the dataset owner to the data source

Add a data source

Configure an on-premises data gateway



**Answer:**



#### **Explanation:**

##### **1. Configure an on-premises data gateway**

The gateway serves as a bridge between the Power BI service and the on-premises SQL Server database.

##### **2. Add a data source**

You need to define the connection to the on-premises SQL Server database within the configured gateway, including credentials and connection details.

##### **3. Add the dataset owner to the data source**

Grant the dataset owner access to the data source to ensure they have the required permissions for dataset refresh.

##### **4. Configure a scheduled refresh**

Finally, set up the dataset's refresh schedule in the Power BI service to automate daily updates.

#### **Explanation:**

##### **Why this order?**

The gateway must be configured first to enable connectivity to on-premises data.

Adding a data source ensures that the gateway has the details to connect to the SQL Server database.

Dataset owners need access to the data source to enable refresh permissions.

Scheduling the refresh is the last step, as all prerequisites must be met before automation can be set up.

##### **Why other orders are incorrect?**

Without configuring the gateway first, there is no connection between Power BI and the on-premises database.

Adding a data source before configuring the gateway is invalid since the data source depends on the gateway configuration.

Scheduled refresh cannot be configured until the connection is established and permissions are set.

**Question: 321**

You have a Power BI dataset and a connected report.

You need to ensure that users can analyze data in Microsoft Excel only by connecting directly to the dataset.

You grant the users the Build permission for the dataset.

What should you do next?

- A. Certify the dataset used by the report.
- B. Change the default visual interaction for the report.
- C. For the report, change the Export data setting to None.
- D. For the report, change the Export data setting to Summarized data, data with current layout and underlying data.

**Answer: C**

**Explanation:**

C is the correct answer. Note the part of the question that says "ONLY by connecting directly to the dataset."

As mentioned in <https://www.designmind.com/blog/business-intelligence/export-underlying-data-in-power-bi>, "You should export summarized data when you want to see the relevant data in the visualization."

Therefore, D cannot be the right answer, as summarized data is not obtained from connecting directly to the dataset, but rather by effectively filtering the dataset based on the contents of the visualization.

Additionally, the "data with current layout and underlying data" part is irrelevant - by allowing Summarized data to be exported, we allow forms of analyzing data other than connecting directly to the dataset, and thus fail the requirements of the question.

**Question: 322**

**HOTSPOT**

-

You have two Power BI workspaces named WorkspaceA and WorkspaceB. WorkspaceA contains two datasets named Sales and HR.

You need to provide a user named User1 with access to the WorkspaceB. The solution must meet the following requirements:

- Create reports that use the HR dataset.
- Publish the reports to WorkspaceB.
- Prevent the ability to modify the HR dataset.
- Prevent the ability to add users to Workspaces.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

To access the HR dataset:

Assign User1 the Contributor role for WorkspaceA.  
Grant User1 the Build permission for the HR dataset.  
Grant User1 read permissions for the HR dataset.  
Grant User1 share permissions for the HR dataset.

To publish reports to WorkspaceB:

Assign User1 the Admin role for Workspaces.  
Assign User1 the Contributor role for WorkspaceA.  
Assign User1 the Contributor role for WorkspaceB.  
Assign User1 the Member role for WorkspaceB.

Answer:

## Answer Area

To access the HR dataset:

Assign User1 the Contributor role for WorkspaceA.  
Grant User1 the Build permission for the HR dataset.  
Grant User1 read permissions for the HR dataset.  
Grant User1 share permissions for the HR dataset.

To publish reports to WorkspaceB:

Assign User1 the Admin role for Workspaces.  
Assign User1 the Contributor role for WorkspaceA.  
Assign User1 the Contributor role for WorkspaceB.  
Assign User1 the Member role for WorkspaceB.

Explanation:

**Grant User 1 the Build Permission for the HR dataset**

**Assign User 1 the Contributor role for Workspace B**

Build and contributor role to workspace B because the user already has build permission for the HR dataset in workspace A and now should be able to publish in workspace B, so the user should be given Contributor role to workspace B.

To copy a report to another workspace, and to create a report in another workspace based on a dataset in the current workspace, you need Build permission for the dataset. You also need at least the Contributor role on the source and destination workspaces. For datasets in the original workspace, if you have at least the Contributor role, you automatically have Build permission through your workspace role.

**Question: 323**

You have a Power BI workspace named BI Data that contains a dataset named BI Finance.

You have the Build permission for the BI Finance dataset, but you do NOT have permissions for the workspace.

You need to connect to BI Finance and create a report.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.From the Power BI service, create a dataflow to the dataset by using DirectQuery.
- B.From Power BI Desktop, connect to a Dataverse data source.
- C.From the Power BI service, create a new report and select a published dataset.
- D.From Power BI Desktop, connect to a shared dataset.

**Answer: CD****Explanation:**

The answer is correct : CD From the Power BI service, create a new report and select a published dataset.From Power BI Desktop, connect to a shared dataset.

**Why C is Correct:**

In the Power BI service, you can create a report by selecting a published dataset that you have Build permission for, even if you lack permissions for the workspace.

The Build permission allows you to connect to the dataset, build new reports, and save them in your own workspace or other workspaces where you have permissions.

**Why D is Correct:**

Using Power BI Desktop, you can connect to a shared dataset in the Power BI service (via "Power BI Datasets" as the data source) if you have Build permission for it.

After connecting, you can create a report in Power BI Desktop and then publish it to a workspace where you have appropriate permissions.

**Why Other Options Are Incorrect:**

- A. From the Power BI service, create a dataflow to the dataset by using DirectQuery:

Dataflows are not used to create reports or connect to published datasets. Dataflows are primarily for data preparation, not report creation.

- B. From Power BI Desktop, connect to a Dataverse data source:

This option is unrelated to the BI Finance dataset. Dataverse is a specific type of data source, not a way to connect to a published Power BI dataset.

**Question: 324**

CertyIQ

You publish a dataset to the Power BI service. The dataset contains a connection to an on-premises Microsoft SQL Server database.

You attempt to configure a scheduled refresh but cannot select the appropriate on-premises data gateway.

You confirm the following with the administrator of the gateway:

- You have the appropriate permissions to use the gateway.
- The data source was created on the gateway.
- The gateway has a status of Running.

What is the most likely reason the gateway is unavailable?

- A. The type of data source is not supported by the on-premises data gateway.
- B. The server name in the PBIX file does not match the data source name in the gateway.
- C. The credentials for the data source are invalid.
- D. The data source is configured to use single sign-on (SSO).

**Answer: B****Explanation:**

In Power BI, when you configure a data source to use an on-premises data gateway, the server name and other connection details in your PBIX file must match the data source configuration in the gateway. If there's a mismatch in the server name or other connection details, the scheduled refresh won't work, and you won't be able to select the appropriate gateway.

The issue is most likely caused by a mismatch between the server name in the Power BI report (PBIX file) and the data source configuration in the on-premises data gateway. Power BI needs the server name in the report to exactly match the one configured in the gateway for the scheduled refresh to be available.

**Why other options are incorrect:**

- A: If the data source type was unsupported, it wouldn't allow any connection, not just scheduled refresh.
- C: Invalid credentials typically block access but would show a different error.
- D: Single sign-on would not prevent the selection of the gateway.

**Question: 325**

CertyIQ

You create a report by using Microsoft Power BI Desktop.

The report uses data from a Microsoft SQL Server Analysis Services (SSAS) tabular model located on your company's internal network.

You plan to publish the report to the Power BI Service.

What should you implement to ensure that users who consume the report from the Power BI Service have the most up-to-date data from the tabular model?

- A. A scheduled refresh of the semantic model

- B.an OData feed
- C.an On-premises data gateway
- D.a subscription

**Answer: C**

**Explanation:**

an On-premises data gateway.

To ensure that users in the Power BI Service always have the most up-to-date data from an on-premises SQL Server Analysis Services (SSAS) tabular model, you need to use an on-premises data gateway. This gateway securely connects the Power BI Service to on-premises data sources, allowing scheduled refreshes and real-time data access.

**Why other options are incorrect:**

- A: Scheduled refresh is for cloud data sources, not for on-premises SSAS.
- B: OData feed is not suitable for SSAS connections.
- D: Subscriptions only deliver reports; they don't ensure data refresh.

## Question: 326

CertyIQ

HOTSPOT

You have a semantic model that has the permissions shown in the following exhibit.

People and groups with access	Email Address	Permissions	
Ben Smith	ben.smith@contoso.com	Workspace Admin, All permissions	...
corp	corp@contoso.com	Read, Reshare, Build	...
finance	finance@contoso.com	Read, Build	...

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

Users in the finance group can [answer choice] the semantic model.

	▼
assign sensitivity labels to use Analyze in Excel with delete	▼

Users in the corp group can [answer choice] the semantic model.

	▼
grant the Build permission for grant the Read permission for remove a table from	▼

Answer:

## Answer Area

Users in the finance group can [answer choice] the semantic model.

	▼
assign sensitivity labels to use Analyze in Excel with delete	▼

Users in the corp group can [answer choice] the semantic model.

	▼
grant the Build permission for grant the Read permission for remove a table from	▼

Explanation:

Use Analyze in Excel with.

grant the Build permission for.

see: <https://learn.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions>

"Say you have Reshare and Build permission on a dataset. When you share a report or dashboard built on that dataset, you can specify that the recipients also get Build permission for the underlying dataset."

If you have Reshare and Build permission on a dataset, and you share a report or dashboard you built on that dataset, you can specify that the recipients also get Build permission for the dataset. For more information, see Share Power BI reports and dashboards with coworkers and others.

<https://learn.microsoft.com/en-us/power-bi/connect-data/service-datasets-build-permissions>

Question: 327

You have a Power BI semantic model named Model1 that contains sales data.

CertyIQ

You need to ensure that Model1 is refreshed on the first day of each month to include last month's sales data.

What should you configure?

- A.a scheduled refresh
- B.an incremental refresh
- C.a Microsoft Power Automate flow
- D.an on-premises data gateway

**Answer: A**

**Explanation:**

a scheduled refresh.

While incremental refresh can help optimize the refresh process by refreshing only the data that has changed, it does not set the schedule for when the refresh happens. It helps with large datasets by minimizing data reloads, but it doesn't solve the requirement of scheduling the refresh for the first day of each month.

**Question: 328**

**CertyIQ**

**Introductory Info Case Study -**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

**To start the case study -**

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

**Overview -**

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

**Existing Environment. Sales Data**

Litware has online sales data that has the SQL schema shown in the following table.

<b>Table name</b>	<b>Column name</b>	<b>Data type</b>
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date\_id column has a format of yyyyymmdd and the month column has a format of yyyyymm. The week column in the Date table and the week\_id column in the Weekly\_Returns table have a format of yyyyww.

In the Sales table, the sales\_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

#### Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales\_amount values do NOT contribute to the total sales amount calculation.

#### Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions. Users must be able to see the month in each report as shown in the following example: Feb 2020. The customer service department requires a visual that can be filtered by both sales month and ship month independently. The maximum allowed latency to include transactions in reports is five minutes. Question You need to create the required relationship for the executive's visual. What should you do before you can create the relationship?

- A. Change the data type of Sales[region\_id] to Whole Number.
- B. Change the data type of Sales[region\_id] to Decimal Number.
- C. In the Sales table, add a measure for Sum(sales\_amount).
- D. Change the data type of Sales[sales\_id] to Text.

**Answer: A**

**Explanation:**

Executives require a visual that shows sales by region.

The data type of Sales[region\_id] must be changed from varchar to Whole Number, as Sales[region\_id] is Integer.

**Question: 329**

**CertyIQ**

**Introductory Info Case Study -**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

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Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date\_id column has a format of yyyyymmdd and the month column has a format of yyyyymm. The week column in the Date table and the week\_id column in the Weekly\_Returns table have a format of yyyyww.

In the Sales table, the sales\_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

#### Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales\_amount values do NOT contribute to the total sales amount calculation.

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Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.  
Users must be able to see the month in each report as shown in the following example: Feb 2020.  
The customer service department requires a visual that can be filtered by both sales month and ship month independently.  
The maximum allowed latency to include transactions in reports is five minutes. Question You need to get data from the Microsoft SQL Server tables.  
What should you use to configure the connection?

- A. Import that uses a Microsoft account
- B. Import that uses a database credential
- C. DirectQuery that uses a database credential
- D. DirectQuery that uses the end-user's credentials

**Answer: C**

**Explanation:**

C. DirectQuery that uses a database credential

If you used the credentials of the user (D) then all users would need to be created in the database.

**Question: 330**

**CertyIQ**

You are creating a new semantic model in Microsoft Power BI Desktop.

You connect to a recently used data source and receive an error message indicating that the password is expired.

You need to update the credentials for the data source.

What should you do?

- A.From Data Source settings, select the data source, and then select Edit Permissions.
- B.From Options, select Data Load, and then select Clear Cache.
- C.From Power Query Editor, select Refresh Preview.
- D.From the Modeling tab, select Manage Roles, and then add a role.

**Answer: A**

**Explanation:**

A. From Data Source settings, select the data source, and then select Edit Permissions.

Data Source Settings: This option allows you to manage the credentials for your data sources. By selecting the data source and choosing to edit permissions, you can update the credentials, such as entering a new password if the old one has expired.

**Question: 331**

**CertyIQ**

You use Power BI Desktop to open a PBIX file that contains a Microsoft Excel data source.

You attempt to refresh the data and receive the following error message.

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

What is a possible cause of the error?

- A.The Cost column was renamed in the data source.
- B.The privacy level of the data source does not allow combining the data with other data sources.
- C.The data in the Cost column cannot be converted into the target data type.
- D.The source file was moved to a new location.

**Answer: A**

**Explanation:**

- A. The Cost column was renamed in the data source.

When a column name is changed in the data source (e.g., Microsoft Excel), Power BI will not be able to find the column with the original name during the refresh, leading to the error you encountered.

**Question: 332**

**CertyIQ**

You have a Power BI tenant that contains a workspace named WS1. WS1 contains the following items:

- A semantic model named SM1.
- A report named RPT1 that is connected to SM1.
- A report named RPT2 that is connected to SM1.
- A report named RPT3 that is connected to SM1.
- A dashboard named DB1 that contains content from RPT1 and RPT2.

You need to grant workspace access to a group named Group1. The solution must meet the following requirements:

- Group1 must be able to view RPT1, RPT2, and DB1.
- Group1 must be prevented from viewing RPT3.
- Group1 must be prevented from creating new reports and dashboards by using SM1.
- Group1 must be prevented from sharing the reports and dashboards to other users.
- Administrative effort must be minimized.

What should you do?

- A.Publish an app.
- B.Assign Group1 the Viewer role for WS1.
- C.Store PBIX files in a shared folder in Microsoft OneDrive.
- D.Share each item individually.

**Answer: A**

**Explanation:**

Group1 must view specific reports and dashboards (RPT1, RPT2, DB1):•Publishing an app allows you to share selected reports and dashboards with specific groups or users. •Group1 must be prevented from viewing RPT3:•Apps allow fine-grained control, so you can exclude RPT3 from the app content. •Group1 must not create new reports or dashboards or share content:•When users access content via an app, they cannot edit or create new reports/dashboards or share the app itself. •Minimize administrative effort:•Publishing an app is simpler and more manageable than other options.

**Question: 333**

**CertyIQ**

HOTSPOT

You have a Power BI semantic model named Model1 that will be used to support reports viewed in the Power BI service.

Model1 contains data from the following sources:

- An Azure SQL database that is accessible only via a private endpoint
- A Microsoft Excel file stored in Microsoft SharePoint Online
- A Microsoft SQL Server database in a private datacenter

You need to publish Model1 and schedule the model to refresh 12 times a day.

How many data sources require a data gateway, and which license mode will the workspace require to support the scheduled refresh? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Data sources:

	▼
1	
2	
3	

License mode:

▼
Embedded
Premium Per User (PPU)
Pro

Answer:

## Answer Area

Data sources:

1
2
3

License mode:

Embedded
Premium Per User (PPU)
Pro

### Explanation:

1. Data Sources: **2.**

This selection suggests that the system or report is using two data sources.

Data sources in Power BI can include databases (SQL Server, Azure, etc.), cloud services, Excel files, APIs, and more.

The choice of "2" means the report is integrating data from two separate sources.

2. License Mode: **Premium Per User (PPU).**

Power BI offers different licensing modes:

Embedded: Used for embedding reports in applications, typically for external users.

Pro: Required for sharing reports and collaborating within an organization.

Premium Per User (PPU): A mix of Power BI Pro and Premium, offering advanced AI, larger dataset storage, and paginated reports at a per-user cost.

### Question: 334

CertyIQ

DRAG DROP

You have a Power BI semantic model.

You need to configure row-level security (RLS) to restrict data access for users that have the Viewer permissions.

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**

- Assign the users the Contributor role for the Power BI workspace.
- Publish the semantic model.
- Assign the users the Member role for the Power BI workspace.
- From the Power BI service, assign the new RLS role to the users.
- From Microsoft Power BI Desktop, create a new RLS role by using a DAX filter.

**Answer Area**

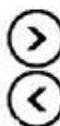
1.
2.
3.

**Answer:****Actions**

- Assign the users the Contributor role for the Power BI workspace.
- Publish the semantic model.
- Assign the users the Member role for the Power BI workspace.
- From the Power BI service, assign the new RLS role to the users.
- From Microsoft Power BI Desktop, create a new RLS role by using a DAX filter.

**Answer Area**

1.  From Microsoft Power BI Desktop, create a new RLS role by using a DAX filter.
2.  Publish the semantic model.
3.  From the Power BI service, assign the new RLS role to the users.

**Explanation:**

1. From Microsoft Power BI Desktop, create a new RLS role by using a DAX filter.

You must first define the RLS roles and the corresponding DAX filters in Power BI Desktop to determine how data is restricted for different users.

2. Publish the semantic model.

After creating the RLS roles, you need to publish the semantic model to the Power BI Service to apply these roles in the cloud environment.

3. From the Power BI service, assign the new RLS role to the users.

Once the model is published, you assign the roles to specific users or groups in the Power BI Service to enforce RLS.

**Question: 335****CertyIQ**

You have a Power BI report named Report1.

You plan to share Report1 with multiple users.

You need to add the users to a group.

Which two types of groups can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A.security group
- B.distribution group
- C.Microsoft Teams team
- D.Microsoft 365 group

**Answer: AD****Explanation:**

To share a Power BI report named Report1 with multiple users by adding them to a group, you can use the following types of groups:  
A. Security group  
D. Microsoft 365 group  
Both security groups and Microsoft 365 groups can be used to manage access to Power BI reports. Security groups are typically used for managing permissions and access control, while Microsoft 365 groups provide a collaborative workspace with shared resources, including access to Power BI reports. Distribution groups and Microsoft Teams teams are not typically used for managing access to Power BI reports in this context.

A. security group Security groups can be used to manage user access and permissions in Power BI.  
D. Microsoft 365 group Microsoft 365 groups (formerly known as Office 365 groups) can also be used to manage access and permissions in Power BI, and they integrate well with other Microsoft 365 services.

### Question: 336

CertyIQ

You plan to create a Power BI report that will be connected to multiple data sources. One of the data sources contains tax records.

You need to ensure that other queries cannot access the tax record information.

To what should you set Privacy Level for the data source?

- A.None
- B.Organizational
- C.Private
- D.Public

### Answer: C

#### Explanation:

Setting the Privacy Level to Private ensures that the data source is completely isolated from all other sources in Power Query.- This prevents data leakage through query folding or merging operations, which could otherwise expose sensitive tax record information to less secure sources.- Power BI will block any attempt to combine this data with other sources unless they are also marked Private and reside in the same isolation zone.

### Question: 337

CertyIQ

You have a semantic model named Model1.

You need to ensure that users can verify that the data in Model1 meets corporate standards.

What should you do?

- A.Create an image of Model1.
- B.Promote Model1.
- C.Certify Model1.
- D.Apply a sensitivity label to Model1.

### Answer: C

#### Explanation:

Certification is the highest level of endorsement in Power BI's data governance framework.- It signals to users

that Model1 has been reviewed and approved by trusted data stewards or administrators as meeting corporate standards for quality, accuracy, and compliance.- Certified datasets appear with a badge and are prioritized in search results, helping users confidently choose the right data source.

CertyIQ

### Question: 338

You attempt to open a PBIX file in Microsoft Power BI Desktop and receive the following error message in Power Query Editor.

DataSource.Error: Could not find file D:\Data.txt.

How should you resolve the issue?

- A.Update the Microsoft OLE DB Provider client libraries on your client computer.
- B.Change the file path of Data.txt.
- C.Change the file format to CSV.
- D.Use an on-premises data gateway.

**Answer: B**

**Explanation:**

**B: Change the file path of Data.txt.**

Placing the Data.txt file in D:\, if you have access to it, or

Going to Power Query Editor → Source step and modifying the file path to wherever Data.txt is currently stored on your machine.

### Question: 339

CertyIQ

You have a Fabric workspace named Workspace1 that contains two Power BI reports named Report1 and Report2.

You create a workspace app that contains both reports.

You need to ensure that the app meets the following requirements:

- Report1 must be visible to all the users in your organization.
- Report2 must be visible to only a security group named Group1.

What should you do next?

- A.Assign Group1 the Viewer role for Workspace1.
- B.Create an audience and assign Group1 to the audience.
- C.Allow access to the hidden content of the app.
- D.Share Report1 with the built-in All users security group.

**Answer: B**

**Explanation:**

B. Create an audience and assign Group1 to the audience.

Power BI apps now support audiences, which allow you to:

Customize which reports are visible to which groups.

Assign different content to different audiences (e.g., departments, roles, security groups).

You can:

Publish Report1 to the default (All Users) audience.

Create a new audience for Group1 and publish Report2 only to them.

This approach meets both requirements in a clean and scalable way.

### Question: 340

CertyIQ

HOTSPOT

You have a Fabric workspace that contains the items shown in the following table.

Name	Type
Headcount	Report
Headcount	Semantic model
Company Expenses	Report
Expenses	Semantic model
Department Expenses	Report

You need to make content available to the management department and the accounting department at your company. The solution must meet the following requirements:

- The management department must have view access to the Headcount and Department Expenses reports.
- The management department must NOT be able to view any other current or future reports.
- The management department must NOT be able to build new reports by using the semantic models.
- The accounting department must only be able to view the Company Expenses report.
- The accounting department must be able to build new reports by using the Expenses semantic model.

The solution must follow the principle of least privilege and minimize administrative effort.

How should you make the content available to the users in each department? To answer, select the appropriate options in the answer area.

NOTE: Each collect selection is worth one point.

## Answer Area

Management:

- Assign the Viewer role for the workspace to each management department user.
- Embed the report is into Microsoft SharePoint Online.
- Publish an app.
- Use Publish to web.

Accounting:

- Assign the Viewer role for the workspace to each management department user.
- Embed the report is into Microsoft SharePoint Online.
- Publish an app.
- Use Publish to web.

Answer:

## Answer Area

Management:

- Assign the Viewer role for the workspace to each management department user.
- Embed the report is into Microsoft SharePoint Online.
- Publish an app.**
- Use Publish to web.

Accounting:

- Assign the Viewer role for the workspace to each management department user.**
- Embed the report is into Microsoft SharePoint Online.
- Publish an app.
- Use Publish to web.

Explanation:

Management: **Publish an app.**

Power BI Apps are the best way to distribute reports to a large group of users in a managed and user-friendly manner.

With an app, you:

Bundle multiple reports and dashboards

Control who has access

Users get a read-only, curated experience

Accounting: **Assign the Viewer role for the workspace.**

If only a few users in the accounting department need access and are comfortable accessing the report from the workspace, giving them the Viewer role is efficient.

Viewer role:

Allows read-only access

Lets users access all reports/dashboards in the workspace

**Question: 341**

You have a PBIX file that contains sensitive information.

You need to secure the information to meet the following requirements:

- Only internal users must be able to open the file if the file is shared via email.
- Once the file is published, only internal users must be able to open the semantic model and the report downloaded from the Power BI service.

What should you do?

- A.From Microsoft Power BI Desktop, apply a sensitivity label.
- B.Certify the semantic model and the report.
- C.Use a live connection for the file.
- D.From the Power BI service, apply a sensitivity label.

**Answer: A**

**Explanation:**

A .From Microsoft Power BI Desktop, apply a sensitivity label: You can apply sensitivity labels directly in Power BI Desktop before publishing. When you publish a PBIX file with a sensitivity label, that label (and its associated protection settings) travels with the semantic model and report into the service.

**Question: 342**

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**Business Issues -**

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

**Existing Environment. Data Sources**

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Name	Type	Data size
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Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details. The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
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2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	México D.F.	MX	5021	Mexico	(5) 555-4729
3	ANTON	Antonio Moreno Taquería	Mataderos 2312	México D.F.	MX	5023	Mexico	(5) 555-3932
4	AROUT	Around the Horn	120 Hanover Sq.	London	UK	WA1 1DP	UK	(171) 555-7788
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesddsl père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
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9	BONAP	Bon app'	12, rue des Bouchers	Marseille	FRA	13008	France	91.24.45.40
10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

Existing Environment. Azure SQL Database

Source1 contains the following tables:

Orders

Products

Suppliers

Categories

Order Details

Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	Not applicable
OrderDate	Yes	Date	2021-01-04	Not applicable
RequiredDate	Yes	Date	2021-02-01	Not applicable
ShippedDate	Yes	Date	2021-01-16	Not applicable
Freight	Yes	Decimal	32.38	Not applicable
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	Not applicable
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	Not applicable
ShipCity	Yes	NVARCHAR	Reims	Not applicable
ShipRegion	Yes	NVARCHAR	FRA	Not applicable
ShipPostalCode	Yes	NVARCHAR	51100	Not applicable
ShipCountry	Yes	NVARCHAR	France	Not applicable

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Foreign key to Orders
ProductID	No	Int	11	Foreign key to Products
UnitPrice	No	Decimal	14	<i>Not applicable</i>
Quantity	No	Smallint	12	<i>Not applicable</i>
Discount	No	Decimal	0.15	<i>Not applicable</i>

The address in the Orders table is the shipping address, which can differ from the billing address.  
The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	<i>Not applicable</i>
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	<i>Not applicable</i>
Discontinued	No	Bit	0	<i>Not applicable</i>

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	<i>Not applicable</i>
Description	Yes	nvarchar	Cheeses	<i>Not applicable</i>

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	<i>Not applicable</i>
Address	Yes	NVARCHAR	Calle del Rosal 4	<i>Not applicable</i>
City	Yes	NVARCHAR	Oviedo	<i>Not applicable</i>
Region	Yes	NVARCHAR	Asturias	<i>Not applicable</i>
PostalCode	Yes	NVARCHAR	33007	<i>Not applicable</i>
Country	Yes	NVARCHAR	Spain	<i>Not applicable</i>
Phone	Yes	NVARCHAR	(98) 598 76 54	<i>Not applicable</i>

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	Not applicable
FirstName	No	NVARCHAR	Nancy	Not applicable
Title	Yes	NVARCHAR	Sales Representative	Not applicable
HireDate	Yes	Date	2015-02-01	Not applicable
Region	Yes	NVARCHAR	WA	Not applicable
Country	Yes	NVARCHAR	USA	Not applicable
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	Not applicable

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

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Top Customers

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The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

#### Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

A single dataset must support all three reports.

The reports must be stored in a single Power BI workspace.

Report data must be current as of 7 AM Pacific Time each day.

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Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

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Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data. Question You need to create the dataset.

Which dataset mode should you use?

- A. Import
- B. DirectQuery
- C. Composite
- D. live connection

**Answer: A**

**Explanation:**

You wouldn't use composite for all. I would say import as the SQL Server data is only 2GB and excel is really small. Also, only need it refreshing once a day so this dataset is very small. Answer is A (Import)

**Question: 343**

**CertyIQ**

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RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data. Question You need to configure access for the sales department users. The solution must meet the security requirements.

What should you do?

- A. Share each report to the Azure Active Directory group of the sales department.
- B. Add the Azure Active Directory group of the sales department as an Admin of the reports workspace.
- C. Distribute an app to the users in the Azure Active Directory group of the sales department.
- D. Add the sales department as a member of the reports workspace.

**Answer: D**

**Explanation:**

D - Add the sales department as a member of the reports workspace.

For the actions they need to perform (edit reports, publish app, etc) the Member role would be the least privilege

## Question: 344

CertyIQ

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The reports must be stored in a single Power BI workspace.

Report data must be current as of 7 AM Pacific Time each day.

The reports must provide fast response times when users interact with a visualization.

The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

#### Requirements. Security Requirements

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only. An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

Create, edit, and delete content in the reports.

Manage permissions for workspaces, datasets, and reports.

Publish, unpublish, update, and change the permissions for an app.

Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data. Question HOTSPOT -

You need to create a solution to meet the notification requirements of the warehouse shipping department.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Populate a

report
bookmark
dashboard

by using a card visualization that shows the percentage of late

orders in the current month, and then configure a

data alert.
phone view.
subscription.

Answer:

### Answer Area

Populate a

report
bookmark
dashboard

by using a card visualization that shows the percentage of late

orders in the current month, and then configure a

data alert.
phone view.
subscription.

Explanation:

Box 1: **dashboard** -

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

You can set alerts to notify you when data in your dashboards changes beyond limits you set.

Box 2: **data alert** -

Reference:

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-set-data-alerts>

Question: 345

CertyIQ

Introductory Info Case Study -

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#### Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

#### Existing Environment -

##### Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

##### Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

##### Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the format shown in the following table.

<b>Product ID</b>	<b>Product name</b>	<b>Product description</b>	<b>Product category</b>	<b>Business unit</b>
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

#### Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

#### Requirements -

##### Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

##### Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

##### Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

##### Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

■

The reports must be updated with the latest data by 5 AM each day. Question You need to create the relationship between the product list and the revenue results. The solution must minimize the time it takes to render visuals.

What should you set as the relationship cardinality?

- A. One to one
- B. Many to many
- C. Many to one
- D. One to many

#### Answer: D

#### Explanation:

One product in the product list can occur many times in the revenue results.

Note 1: One to many (1:\*) : In a one-to-many relationship, the column in one table has only one instance of a particular value, and the other related table can have more than one instance of a value.

Note 2:

Revenue data is provided at the date and product level.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time -

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-create-and-manage-relationships>

#### Question: 346

CertyIQ

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The balance sheet data always includes a row for each account for each month.

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Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

#### Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

#### Requirements -

##### Planned Changes -

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Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

##### Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
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The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

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The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

■

The reports must be updated with the latest data by 5 AM each day. Question HOTSPOT -

You need to create a measure that returns the percent of revenue by product category.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Category Revenue Contribution =

VAR AllCategoryRev =

▼	(SUM ([Revenue]),
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

▼	(ProductList[ProductCategory]))
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

RETURN

▼	(SUM([Revenue]), AllCategoryRev)
ALL	
ALLEXCEPT	
CALCULATE	
DIVIDE	
FILTER	

## Answer:

```
Category Revenue Contribution =  
VAR AllCategoryRev =  
  
    [▼ (SUM ([Revenue]),  
        ALL  
        ALLEXCEPT  
        CALCULATE  
        DIVIDE  
        FILTER)  
  
    [▼ (ProductList [ProductCategory]))  
        ALL  
        ALLEXCEPT  
        CALCULATE  
        DIVIDE  
        FILTER)  
  
RETURN  
    [▼ (SUM([Revenue]), AllCategoryRev)  
        ALL  
        ALLEXCEPT  
        CALCULATE  
        DIVIDE  
        FILTER)
```

## Explanation:

Box 1: CALCULATE -

CALCULATE evaluates an expression in a modified filter context.

Syntax: CALCULATE(<expression>[, <filter1> [, <filter2> [, ♦]]])

Box 2: ALL-

Box 3: DIVIDE -

DIVIDE performs a division.

Example: MEASURE FactInternetSales[%Sales] = DIVIDE([TotalSales],  
CALCULATE([TotalSales], REMOVEFILTERS()))

Note: The RETURN keyword consumes variables defined in previous VAR statements.

VAR AllCategoryRev =

**CALCULATE(SUM([Revenue]),**

**ALL(ProductList[ProductCategory]))**

RETURN

**DIVIDE(SUM([Revenue]), AllCategoryRev**

Anyone with experience in DAX would only need to read the question in these case study questions. The questions seem to hint the answer already.. for this question for example anyone would know that the moment you see a percentage of the total is required you would immediately go with the ALL function and the rest is easy.

Reference:

<https://docs.microsoft.com/en-us/dax/calculate-function-dax>

<https://docs.microsoft.com/en-us/dax/removefilters-function-dax> <https://dax.guide/st/return/>

## Question: 347

CertyIQ

### Introductory Info Case Study -

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### Overview -

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Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

### Existing Environment -

#### Data and Sources -

Data for the reports comes from the sources shown in the following table.

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Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

#### Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
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FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

#### Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

#### Requirements -

##### Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

##### Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

##### Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.  
 Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.  
 Analysts must NOT be able to share the quarterly reports with anyone.  
 Analysts must NOT be able to make new reports by using the balance sheet data.

#### Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

The reports must be updated with the latest data by 5 AM each day. Question DRAG DROP -

Once the profit and loss dataset is created, which four actions should you perform in sequence to ensure that the business unit analysts see the appropriate profit and loss data? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
From powerbi.com, assign the analysts the Contributor role to the workspace.	
From Power BI Desktop, add a Table Filter DAX Expression to the roles.	▶
From powerbi.com, add role members to the roles.	◀
From Power BI Desktop, create four roles.	
From Power BI Desktop, publish the dataset to powerbi.com.	

#### Answer:

Actions	Answer Area
From powerbi.com, assign the analysts the Contributor role to the workspace.	From Power BI Desktop, create four roles.
From Power BI Desktop, add a Table Filter DAX Expression to the roles.	From Power BI Desktop, add a Table Filter DAX Expression to the roles.
From powerbi.com, add role members to the roles.	From Power BI Desktop, publish the dataset to powerbi.com.
From Power BI Desktop, create four roles.	From powerbi.com, add role members to the roles.
From Power BI Desktop, publish the dataset to powerbi.com.	

#### Explanation:

- 1) Create four roles

2) add DAX filters

3) publish

4) add role members

Contributor role give analysts a possibility to save reports to a workspace, which is not permitted by requirements

Reference:

<https://docs.microsoft.com/en-us/power-bi/enterprise/service-admin-rls>

CertyIQ

### Question: 348

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Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

■

The reports must be updated with the latest data by 5 AM each day. Question Which DAX expression should you use to get the ending balances in the balance sheet reports?

- A. CALCULATE ( SUM( BalanceSheet[BalanceAmount] ), LASTDATE ( 'Date'[Date] ) )
- B. CALCULATE ( SUM( BalanceSheet[BalanceAmount] ), DATESQTD('Date'[Date]) )
- C. FIRSTNONBLANK ('Date'[Date] SUM( BalanceSheet[BalanceAmount] ) )
- D. CALCULATE ( MAX( BalanceSheet[BalanceAmount] ), LASTDATE ('Date'[Date] ) )

**Answer: A**

**Explanation:**

A) - LASTDATE()

as we do not sum the balances of last 3 months

The board meeting requires quarter balance. For example, Jan - Mar. So what we need is the balance as at 31 Mar, the LASTDATE is appropriate. The balance sheet already gives you the number directly. No need to calculate up to 3 months.

In case of using DATESQTD, daily sale and expenses will be listed in a table rather than balance in balance sheet.

**Question: 349**

**CertyIQ**

Introductory Info Case Study -

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Overview -

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

Existing Environment. Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the date\_id column has a format of yyyyymmdd and the month column has a format of yyyyymm. The week column in the Date table and the week\_id column in the Weekly\_Returns table have a format of yyyyww.

In the Sales table, the sales\_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

#### Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales\_amount values do NOT contribute to the total sales amount calculation.

#### Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

- The sales department requires reports that contain the number of sales transactions.  
Users must be able to see the month in each report as shown in the following example: Feb 2020.  
The customer service department requires a visual that can be filtered by both sales month and ship month independently.  
The maximum allowed latency to include transactions in reports is five minutes. Question You need to create relationships to meet the reporting requirements of the customer service department.  
What should you create?
- A. a one-to-many relationship from Date[date\_id] to Sales[sales\_date\_id] and another one-to-many relationship from Date[date\_id] to Weekly\_Returns[week\_id]
  - B. a one-to-many relationship from Sales[sales\_date\_id] to Date[date\_id] and a one-to-many relationship from Sales[sales\_ship\_date\_id] to Date[date\_id]
  - C. an additional date table named ShipDate, a many-to-many relationship from Sales[sales\_date\_id] to Date[date\_id], and a many-to-many relationship from Sales[sales\_ship\_date\_id] to ShipDate[date\_id]
  - D. an additional date table named ShipDate, a one-to-many relationship from Date[date\_id] to Sales[sales\_date\_id], and a one-to-many relationship from ShipDate[date\_id] to Sales[sales\_skip\_date\_id]

**Answer: D**

**Explanation:**

#### **Two date dims, two 1:\* relationships**

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

Need two date tables. Add a one-to-many relationship from both the Date tables to Sales table.

Reference:

<https://docs.microsoft.com/en-us/power-bi/guidance/relationships-active-inactive>

## **Question: 350**

**CertyIQ**

You need to provide a solution to provide the sales managers with the required access.  
What should you include in the solution?

- A. Create a security role that has a table filter on the Sales Manager table where username = UserName().
- B. Create a security role that has a table filter on the Sales Manager table where username = sales\_manager\_id.
- C. Create a security role that has a table filter on the Region Manager table where sales\_manager\_id = UserPrincipalName().
- D. Create a security role that has a table filter on the Sales\_Manager table where name = UserName().

**Answer: A**

**Explanation:**

The sales managers must be able to see only the sales data of their respective region.

Use the username field of the Sales\_manager table.

Also use the Username() DAX function to validate the username.

Reference:

<https://powerbi.microsoft.com/en-my/blog/using-username-in-dax-with-row-level-security/>

# Case Study Description

## Litware, Inc. Case Study

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### Overview

Litware, Inc. is an online retailer that uses Microsoft Power BI dashboards and reports.

The company plans to leverage data from Microsoft SQL Server databases, Microsoft Excel files, text files, and several other data sources.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

### Existing Environment

#### Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
	sales_manager_id	Integer
Sales_Manager	name	Varchar
	username	Varchar
	sales_id	Integer
Sales	sales_date_id	Integer
	sales_amount	Floating
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
	customer_id	Integer
Customer_Date	first_name	Varchar
	last_name	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Floating
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the dateid column has a format of yyyyymmdd and the month column has a format of yyyyymm.

The week column in the Date table and the weekid column in the Weekly\_Returns table have a format of yyyyww.

The regionid column can be managed by only one sales manager.

#### Data Concerns

You are concerned with the quality and completeness of the sales data. You plan to verify the sales data for negative sales amounts.

#### Reporting Requirements

##### Litware identifies the following technical requirements:

- Executives require a visual that shows sales by region.
- Regional managers require a visual to analyze weekly sales and returns.
- Sales managers must be able to see the sales data of their respective region only.
- The sales managers require a visual to analyze sales performance versus sales targets.
- The sale department requires reports that contain the number of sales transactions.

- Users must be able to see the month in reports as shown in the following example: Feb 2020.
- The customer service department requires a visual that can be filtered by both sales month and ship month independently.
- The maximum allowed latency to include transactions in reports is five minutes.

## Question: 351

CertyIQ

You merge data from Sales\_Region, Region\_Manager, Sales\_Manager, and Manager into a single table named Region.

What should you do next to meet the reporting requirements of the executives?

- Create a DAX calculated column that retrieves the region manager from the Weekly\_Returns table based on the sales\_region\_id column.
- Apply row-level security (RLS) to the Region table based on the sales manager username.
- Configure a bi-directional relationship between Region and Sales\_Region.
- In the Region table, create a hierarchy that has the manager name, and then the sales manager name.

## Answer: D

### Explanation:

D seems to be correct because the Executives will only be able to see Region managers and Sales managers that report to them in a hierarchy, besides there is nothing to measure there so A is actually wrong

Executives require a visual that shows returns by region manager and the sales managers that report to them.

A hierarchy is a set of fields categorized in a hierarchical way that one level is the parent of another level. Values of the parent level can be drilled down to the lower level.

Reference:

<https://radacad.com/what-a-power-bi-hierarchy-is-and-how-to-use-it>

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	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Floating
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Customer_Date	customer_id	Integer
	first_name	Varchar
	last_name	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Floating
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

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- The sale department requires reports that contain the number of sales transactions.
- Users must be able to see the month in reports as shown in the following example: Feb 2020.
- The customer service department requires a visual that can be filtered by both sales month and ship month independently.
- The maximum allowed latency to include transactions in reports is five minutes.

#### Question: 352

CertyIQ

What should you create to meet the reporting requirements of the sales department?

- A. a measure that uses a formula of COUNTROWS(Sales)
- B. a calculated column that uses a formula of COUNTA(Sales[sales\_id])
- C. a calculated column that uses a formula of SUM(Sales[sales\_id])
- D. a measure that uses a formula of SUM(Sales[sales\_id])

#### Answer: A

#### Explanation:

The sales department requires reports that contain the number of sales transactions.

The COUNTROWS function counts the number of rows in the specified table, or in a table defined by an expression.

Incorrect:

The COUNTA function counts the number of cells in a column that are not empty.

Reference:

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	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
	sales_manager_id	Integer
Sales_Manager	name	Varchar
	username	Varchar
	sales_id	Integer
Sales	sales_date_id	Integer
	sales_amount	Floating
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
	customer_id	Integer
Customer_Date	first_name	Varchar
	last_name	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Floating
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the dateid column has a format of yyyyymmdd and the month column has a format of yyyyymm.

The week column in the Date table and the weekid column in the Weekly\_Returns table have a format of yyyyww.

The regionid column can be managed by only one sales manager.

#### Data Concerns

You are concerned with the quality and completeness of the sales data. You plan to verify the sales data for negative sales amounts.

#### Reporting Requirements

##### Litware identifies the following technical requirements:

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- Sales managers must be able to see the sales data of their respective region only.
- The sales managers require a visual to analyze sales performance versus sales targets.
- The sale department requires reports that contain the number of sales transactions.

- Users must be able to see the month in reports as shown in the following example: Feb 2020.
- The customer service department requires a visual that can be filtered by both sales month and ship month independently.
- The maximum allowed latency to include transactions in reports is five minutes.

## Question: 353

CertyIQ

What should you do to address the existing environment data concerns?

- a calculated column that uses the following formula: ABS(Sales[sales\_amount])
- a measure that uses the following formula: SUMX(FILTER('Sales', 'Sales'[sales\_amount] > 0)),[sales\_amount])
- a measure that uses the following formula: SUM(Sales[sales\_amount])
- a calculated column that uses the following formula: IF(ISBLANK(Sales[sales\_amount]),0,(Sales[sales\_amount]))

**Answer: B**

**Explanation:**

You are concerned with the quality and completeness of the sales data. You must ensure that negative and missing sales\_amount values do NOT contribute to the total sales amount calculation.

---

## Case Study Description

**Northwind Traders**

**Case study**

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## Overview.

### General Overview

Northwind Traders is a specialty food import company.

The company recently implemented Power BI to better understand its top customers, products, and suppliers.

### Overview. Business Issues

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

### Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

### Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details.

The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	Berlin	DE	12209	Germany	030-0074321
2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	México D.F.	MX	5021	Mexico	(5) 555-4729
3	ANTON	Antonio Moreno Taqueria	Mataderos 2312	México D.F.	MX	5023	Mexico	(5) 555-3932
4	AROUT	Around the Horn	120 Hanover Sq.	London	UK	WA1 1DP	UK	(171) 555-7788
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesddsi père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
8	BOLID	Bólido Comidas preparadas	C/ Araquil, 67	Madrid	SPN	28023	Spain	(91) 555 22 82
9	BONAP	Bon app'	12, rue des Bouchers	Marseille	FRA	13008	France	91.24.45.40
10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

### Existing Environment. Azure SQL Database

Source1 contains the following table:

- Orders
- Products
- Suppliers
- Categories
- Order Details
- Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	Not applicable
OrderDate	Yes	Date	2021-01-04	Not applicable
RequiredDate	Yes	Date	2021-02-01	Not applicable
ShippedDate	Yes	Date	2021-01-16	Not applicable
Freight	Yes	Decimal	32.38	Not applicable
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	Not applicable
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	Not applicable
ShipCity	Yes	NVARCHAR	Reims	Not applicable
ShipRegion	Yes	NVARCHAR	FRA	Not applicable
ShipPostalCode	Yes	NVARCHAR	511000	Not applicable
ShipCountry	Yes	NVARCHAR	France	Not applicable

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	Not applicable
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	Not applicable
Discontinued	No	Bit	0	Not applicable

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	Not applicable
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	Not applicable
Discontinued	No	Bit	0	Not applicable

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	Not applicable
Description	Yes	nvarchar	Cheeses	Not applicable

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	Not applicable
Address	Yes	NVARCHAR	Calle del Rosal 4	Not applicable
City	Yes	NVARCHAR	Oviedo	Not applicable
Region	Yes	NVARCHAR	Asturias	Not applicable
PostalCode	Yes	NVARCHAR	33007	Not applicable
Country	Yes	NVARCHAR	Spain	Not applicable
Phone	Yes	NVARCHAR	(98) 598 76 54	Not applicable

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	Not applicable
FirstName	No	NVARCHAR	Nancy	Not applicable
Title	Yes	NVARCHAR	Sales Representative	Not applicable
HireDate	Yes	Date	2015-02-01	Not applicable
Region	Yes	NVARCHAR	WA	Not applicable
Country	Yes	NVARCHAR	USA	Not applicable
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	Not applicable

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

#### Requirements.

##### Report Requirements

Northwind Traders requires the following reports:

- Top Products
- Top Customers
- On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

- The percentage of orders that were shipped late by country and shipping region
- Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

#### Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

- A single dataset must support all three reports.
- The reports must be stored in a single Power BI workspace.
- Report data must be current as of 7 AM Pacific Time each day.

- The reports must provide fast response times when users interact with a visualization.
- The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

## Requirements.

### Security Requirements

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only.

An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

- Create, edit, and delete content in the reports.
- Manage permissions for workspaces, datasets, and report.
- Publish, unpublish, update, and change the permissions for an app.
- Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

CertyIQ

### Question: 354

You need to create a calculated column to display the month based on the reporting requirements. Which DAX expression should you use?

- A. FORMAT('Date'[date],MMM YYYY)
- B. FORMAT('Date'[date\_id],MMM) & & FORMAT('Date'[year], #)
- C. FORMAT('Date'[date\_id],MMM YYYY)
- D. FORMAT('Date'[date],M YY)

### Answer: A

#### Explanation:

Users must be able to see the month in each report as shown in the following example: Feb 2020.

Custom date/time formats -

The following format characters can be specified in the format\_string to create custom date/time formats:

\* mmm

Display the month as an abbreviation (Jan-Dec). Localized.

\* yyyy

Display the year as a 4-digit number (100-9999).

\* Etc.

Reference:

<https://docs.microsoft.com/en-us/dax/format-function-dax#predefined-datetime-formats>

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## Case Study Description

### Litware, Inc. Case Study

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### Overview

Litware, Inc. is an online retailer that uses Microsoft Power BI dashboards and reports.

The company plans to leverage data from Microsoft SQL Server databases, Microsoft Excel files, text files, and several other data sources.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

### Existing Environment

#### Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	VARCHAR
Region_Manager	region_id	Integer
	manager_id	Integer
	sales_manager_id	Integer
Sales_Manager	name	VARCHAR
	username	VARCHAR
	sales_id	Integer
Sales	sales_date_id	Integer
	sales_amount	Floating
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	VARCHAR
	customer_id	Integer
Customer_Date	first_name	VARCHAR
	last_name	VARCHAR
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Floating
	sales_region_id	VARCHAR
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the dateid column has a format of yyyyymmdd and the month column has a format of yyyyymm.

The week column in the Date table and the weekid column in the Weekly\_Returns table have a format of yyyyww.

The regionid column can be managed by only one sales manager.

#### Data Concerns

You are concerned with the quality and completeness of the sales data. You plan to verify the sales data for negative sales amounts.

#### Reporting Requirements

##### Litware identifies the following technical requirements:

- Executives require a visual that shows sales by region.
- Regional managers require a visual to analyze weekly sales and returns.
- Sales managers must be able to see the sales data of their respective region only.
- The sales managers require a visual to analyze sales performance versus sales targets.
- The sale department requires reports that contain the number of sales transactions.

- Users must be able to see the month in reports as shown in the following example: Feb 2020.
- The customer service department requires a visual that can be filtered by both sales month and ship month independently.
- The maximum allowed latency to include transactions in reports is five minutes.

## Question: 355

CertyIQ

HOTSPOT -

You need to design the data model and the relationships for the Customer Details worksheet and the Orders table by using Power BI. The solution must meet the report requirements.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
A relationship must be created between the CustomerID column in the Customer Details worksheet and the CustomerID column in the Orders table.	<input type="radio"/>	<input type="radio"/>
The Data Type of the columns in the relationship between the Customer Details worksheet and the Orders table must be set to <b>Text</b> .	<input type="radio"/>	<input type="radio"/>
The Region field used to filter the Top Customers report must come from the Orders table.	<input type="radio"/>	<input type="radio"/>

Answer:

### Answer Area

Statements	Yes	No
A relationship must be created between the CustomerID column in the Customer Details worksheet and the CustomerID column in the Orders table.	<input type="radio"/>	<input checked="" type="radio"/>
The Data Type of the columns in the relationship between the Customer Details worksheet and the Orders table must be set to <b>Text</b> .	<input checked="" type="radio"/>	<input type="radio"/>
The Region field used to filter the Top Customers report must come from the Orders table.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Box 1: **No-**

Customer ID in Orders is text ("VINET") while Customer ID in Customer Details is number ("1").

Box 2: **Yes-**

Relationship between Orders and Customer Details will be via column Customer CRMID in Customer Details and Customer ID in Orders, which are both text.

### **Box 3: No -**

the Orders table only contains shipping address, which is different from the billing address which should be used for sales region. Thus, it should come from Customer Details table.

No - Yes - No. According to the sample data the Customer ID in Customer Details is a number (1 through 10 is shown in the example data) and the Customer ID in the Orders table has an example value of VINET, which looks like it corresponds to the value of Customer CRMID instead of Customer ID from the Customer Details worksheet so the first answer should be No. The second answer should be Yes, the Customer ID from Orders has example value VINET, which is text.

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## **Case Study Description**

### **Northwind Traders**

#### **Case study**

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#### **Overview.**

##### **General Overview**

Northwind Traders is a specialty food import company.

The company recently implemented Power BI to better understand its top customers, products, and suppliers.

##### **Overview. Business Issues**

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

## Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

## Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details.

The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	Berlin	DE	12209	Germany	030-0074321
2	ANATR	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	México D.F.	MX	5021	Mexico	(5) 555-4729
3	ANTON	Antonio Moreno Taqueria	Mataderos 2312	México D.F.	MX	5023	Mexico	(5) 555-3932
4	AROUT	Around the Horn	120 Hanover Sq.	London	UK	WA1 1DP	UK	(171) 555-7788
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesddsi père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
8	BOLID	Bólido Comidas preparadas	C/ Araquil, 67	Madrid	SPN	28023	Spain	(91) 555 22 82
9	BONAP	Bon app'	12, rue des Bouchers	Marseille	FRA	13008	France	91.24.45.40
10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

## Existing Environment. Azure SQL Database

Source1 contains the following table:

- Orders
- Products
- Suppliers
- Categories
- Order Details
- Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	Not applicable
OrderDate	Yes	Date	2021-01-04	Not applicable
RequiredDate	Yes	Date	2021-02-01	Not applicable
ShippedDate	Yes	Date	2021-01-16	Not applicable
Freight	Yes	Decimal	32.38	Not applicable
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	Not applicable
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	Not applicable
ShipCity	Yes	NVARCHAR	Reims	Not applicable
ShipRegion	Yes	NVARCHAR	FRA	Not applicable
ShipPostalCode	Yes	NVARCHAR	511000	Not applicable
ShipCountry	Yes	NVARCHAR	France	Not applicable

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	Not applicable
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	Not applicable
Discontinued	No	Bit	0	Not applicable

The address in the Orders table is the shipping address, which can differ from the billing address.

The Products table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	Not applicable
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	Not applicable
Discontinued	No	Bit	0	Not applicable

The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	Not applicable
Description	Yes	nvarchar	Cheeses	Not applicable

The Suppliers table contains the following columns.

Name	Is nullable	Data type	Example value	Key
SupplierID	No	Int	5	Primary key
CompanyName	No	NVARCHAR	Cooperativa de Quesos 'Las Cabras'	Not applicable
Address	Yes	NVARCHAR	Calle del Rosal 4	Not applicable
City	Yes	NVARCHAR	Oviedo	Not applicable
Region	Yes	NVARCHAR	Asturias	Not applicable
PostalCode	Yes	NVARCHAR	33007	Not applicable
Country	Yes	NVARCHAR	Spain	Not applicable
Phone	Yes	NVARCHAR	(98) 598 76 54	Not applicable

The Sales Employees table contains the following columns.

Name	Is nullable	Data type	Example value	Key
EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	Not applicable
FirstName	No	NVARCHAR	Nancy	Not applicable
Title	Yes	NVARCHAR	Sales Representative	Not applicable
HireDate	Yes	Date	2015-02-01	Not applicable
Region	Yes	NVARCHAR	WA	Not applicable
Country	Yes	NVARCHAR	USA	Not applicable
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	Not applicable

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

#### Requirements.

##### Report Requirements

Northwind Traders requires the following reports:

- Top Products
- Top Customers
- On-Time Shipping

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

The Top Products report will show the top 20 products based on the highest sales amounts sold in a selected order month or quarter, sales region, and product category. The report must also show which suppliers provide the top products.

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

- The percentage of orders that were shipped late by country and shipping region
- Customers that had multiple late shipments during the last quarter

Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

#### Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

- A single dataset must support all three reports.
- The reports must be stored in a single Power BI workspace.
- Report data must be current as of 7 AM Pacific Time each day.

- The reports must provide fast response times when users interact with a visualization.
- The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

## **Requirements.**

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Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only.

An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

- Create, edit, and delete content in the reports.
- Manage permissions for workspaces, datasets, and report.
- Publish, unpublish, update, and change the permissions for an app.
- Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

## **Question: 356**

**CertyIQ**

HOTSPOT -

You need to create a measure that will return the percentage of late orders.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

```
Late Orders Percent =  
VAR OrderCount =  
    COUNTROWS ( 'Orders' )  
VAR LateOrders =  
    SUM  
    COUNTX  
    CALCULATE  
    CALCULATETABLE  
        COUNTROWS ( 'Orders' ),  
        ( Orders,  
            FILTER  
            ALLEXCEPT  
            CALCULATE  
            DATESBETWEEN  
        )  
    )  
RETURN  
    DIVIDE ( LateOrders, OrderCount )
```

## Answer:

### Answer Area

```
Late Orders Percent =  
VAR OrderCount =  
    COUNTROWS ( 'Orders' )  
VAR LateOrders =  
    SUM  
    COUNTX  
    CALCULATE  
    CALCULATETABLE  
        COUNTROWS ( 'Orders' ),  
        ( Orders,  
            FILTER  
            ALLEXCEPT  
            CALCULATE  
            DATESBETWEEN  
        )  
    )  
RETURN  
    DIVIDE ( LateOrders, OrderCount )
```

Orders[OrderDate] > Orders[RequiredDate]
Orders[ShippedDate] >= Orders[OrderDate]
Orders[ShippedDate] < Orders[RequiredDate]
Orders[ShippedDate] > Orders[RequiredDate]

## Explanation:

### Box 1: CALCULATE -

CALCULATE evaluates an expression in a modified filter context.

Syntax: CALCULATE(<expression>[, <filter1> [, <filter2> [, , ]]])  
expression - The expression to be evaluated.  
filter1, filter2,... - (Optional) Boolean expressions or table expressions that defines filters, or filter modifier

functions.

Incorrect:

\* COUNTX - Counts the number of rows that contain a non-blank value or an expression that evaluates to a non-blank value, when evaluating an expression over a table.

\* CALCULATETABLE evaluates a table expression in a modified filter context.

Syntax: CALCULATETABLE(<expression>[, <filter1> [, <filter2> [, ...]])

Expression - The table expression to be evaluated.

Box 2: **FILTER** -

FILTER returns a table that represents a subset of another table or expression.

Syntax: FILTER(<table>,<filter>)

Box 3: **Orders[Shipped Date] > Orders[Required Date]**

Northwind Traders defines late orders as those shipped after the required shipping date.

Reference:

<https://docs.microsoft.com/en-us/dax/calculate-function-dax>

<https://docs.microsoft.com/en-us/dax/filter-function-dax>

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## Case Study Description

**Northwind Traders**

**Case study**

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3	ANTON	Antonio Moreno Taqueria	Mataderos 2312	México D.F.	MX	5023	Mexico	(5) 555-3932
4	AROUT	Around the Horn	120 Hanover Sq.	London	UK	WA1 1DP	UK	(171) 555-7788
5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesddsi père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
8	BOLID	Bólido Comidas preparadas	C/ Araquil, 67	Madrid	SPN	28023	Spain	(91) 555 22 82
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All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

### Existing Environment. Azure SQL Database

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- Suppliers
- Categories
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Freight	Yes	Decimal	32.38	Not applicable
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	Not applicable
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	Not applicable
ShipCity	Yes	NVARCHAR	Reims	Not applicable
ShipRegion	Yes	NVARCHAR	FRA	Not applicable
ShipPostalCode	Yes	NVARCHAR	511000	Not applicable
ShipCountry	Yes	NVARCHAR	France	Not applicable

The Order Details table contains the following columns.

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Discontinued	No	Bit	0	Not applicable

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HireDate	Yes	Date	2015-02-01	Not applicable
Region	Yes	NVARCHAR	WA	Not applicable
Country	Yes	NVARCHAR	USA	Not applicable
EmailAddress	No	NVARCHAR	ndavolio@northwindtraders.com	Not applicable

Each employee in the Sales Employees table is assigned to one sales region. Multiple employees can be assigned to each region.

#### Requirements.

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Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

## Question: 357

CertyIQ

You need to minimize the size of the dataset. The solution must meet the report requirements.  
What should you do?

- A. Group the Categories table by the CategoryID column.
- B. Remove the QuantityPerUnit column from the Products table.
- C. Filter out discontinued products while importing the Products table.
- D. Change the OrderID column in the Orders table to the Text data type.

## Answer: B

### Explanation:

Removing a column which isn't used in the reports reduces the dataset size.

Incorrect:

Not A: Grouping does not affect size.

Not C: Cannot filter out discontinued products as: The reports must show historical data for the current calendar year and the last three calendar years.

Not D: OrderID must be Integer.

---

# Case Study Description

## Northwind Traders

### Case study

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#### General Overview

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Source2 contains a single worksheet named Customer Details.

The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
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10	BOTTM	Bottom-Dollar Markets	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729

All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

#### Existing Environment. Azure SQL Database

Source1 contains the following table:

- Orders
- Products
- Suppliers
- Categories
- Order Details
- Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	Not applicable
OrderDate	Yes	Date	2021-01-04	Not applicable
RequiredDate	Yes	Date	2021-02-01	Not applicable
ShippedDate	Yes	Date	2021-01-16	Not applicable
Freight	Yes	Decimal	32.38	Not applicable
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	Not applicable
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	Not applicable
ShipCity	Yes	NVARCHAR	Reims	Not applicable
ShipRegion	Yes	NVARCHAR	FRA	Not applicable
ShipPostalCode	Yes	NVARCHAR	511000	Not applicable
ShipCountry	Yes	NVARCHAR	France	Not applicable

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	Not applicable
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	Not applicable
Discontinued	No	Bit	0	Not applicable

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The Products table contains the following columns.

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The Categories table contains the following columns.

Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
CategoryName	No	nvarchar	Dairy Products	Not applicable
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The Suppliers table contains the following columns.

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SupplierID	No	Int	5	Primary key
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PostalCode	Yes	NVARCHAR	33007	Not applicable
Country	Yes	NVARCHAR	Spain	Not applicable
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EmployeeID	No	Int	1	Primary key
LastName	No	NVARCHAR	Davolio	Not applicable
FirstName	No	NVARCHAR	Nancy	Not applicable
Title	Yes	NVARCHAR	Sales Representative	Not applicable
HireDate	Yes	Date	2015-02-01	Not applicable
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#### Requirements.

##### Report Requirements

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The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

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- The percentage of orders that were shipped late by country and shipping region
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Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

#### Requirements. Technical Requirements

Northwind Traders identifies the following technical requirements:

- A single dataset must support all three reports.
- The reports must be stored in a single Power BI workspace.
- Report data must be current as of 7 AM Pacific Time each day.

- The reports must provide fast response times when users interact with a visualization.
- The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

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Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only.

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[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

## Question: 358

CertyIQ

You need to design the data model to meet the report requirements.  
What should you do in Power BI Desktop?

- A. From Power Query, add a date table. Create an active relationship to the OrderDate column in the Orders table and an inactive relationship to the ShippedDate column in the Orders table.
- B. From Power Query, add columns to the Orders table to calculate the calendar quarter and the calendar month of the OrderDate column.
- C. From Power BI Desktop, use the Auto date/time option when creating the reports.
- D. From Power Query, use a DAX expression to add columns to the Orders table to calculate the calendar quarter of the OrderDate column, the calendar month of the OrderDate column, the calendar quarter of the ShippedDate column, and the calendar month of the ShippedDate column.

## Answer: A

### Explanation:

Because we do have visuals that need a filter on either order or shipping date, but no visual requires a filter on both at the same time.

Auto date/time does not meet the criteria: The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

The correct answer is A

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## Northwind Traders

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## Question: 359

CertyIQ

HOTSPOT -

You need to create a relationship in the dataset for RLS.

What should you do? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Create a

one-to-one
one-to-many
many-to-one
many-to-many

relationship between the Sales Employees table and the

Orders table
Suppliers table
Order Details table
Customer Details worksheet

### Answer:

## Answer Area

Create a	<table border="1"><tr><td>one-to-one</td></tr><tr><td>one-to-many</td></tr><tr><td>many-to-one</td></tr><tr><td>many-to-many</td></tr></table>	one-to-one	one-to-many	many-to-one	many-to-many	relationship between the Sales Employees table and the	<table border="1"><tr><td>Orders table</td></tr><tr><td>Suppliers table</td></tr><tr><td>Order Details table</td></tr><tr><td>Customer Details worksheet</td></tr></table>	Orders table	Suppliers table	Order Details table	Customer Details worksheet
one-to-one											
one-to-many											
many-to-one											
many-to-many											
Orders table											
Suppliers table											
Order Details table											
Customer Details worksheet											

### Explanation:

#### Box 1: many-to-many -

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

With composite models, you can establish a many-to-many relationship between tables, which removes requirements for unique values in tables. It also removes previous workarounds, such as introducing new tables only to establish relationships.

#### Box 2: Customer details

Sales employees should see the sales of their region only, so all sales ordered by customers whose billing address belongs to the sales employee's region.

Therefore, the relationship between sales employees (region) and customer details (region) should be many-to-many (a sales employee has many customers in his region and a customer in a region can have many sales employees for that region).

In this case, as the customer table is related to the order table, the sales employees will only be able to see the orders of the customers in their region.

#### Reference:

<https://docs.microsoft.com/en-us/power-bi/transform-model/desktop-create-and-manage-relationships>

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## Case Study Description

### Northwind Traders

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[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

## Question: 360

CertyIQ

You need to update the Power BI model to ensure that the analysts can quickly build drill-downs from business unit to product in a visual.

What should you create?

- A. a group
- B. a calculated table
- C. a hierarchy
- D. a calculated column

## Answer: C

### Explanation:

Drill requires a hierarchy.

When a visual has a hierarchy, you can drill down to reveal additional details.

### Reference:

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-drill>

# Case Study Description

## Northwind Traders

### Case study

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### Overview.

#### General Overview

Northwind Traders is a specialty food import company.

The company recently implemented Power BI to better understand its top customers, products, and suppliers.

#### Overview. Business Issues

The sales department relies on the IT department to generate reports in Microsoft SQL Server Reporting Services (SSRS). The IT department takes too long to generate the reports and often misunderstands the report requirements.

#### Existing Environment. Data Sources

Northwind Traders uses the data sources shown in the following table.

Name	Type	Data size
Source1	Azure SQL database	2 GB
Source2	Microsoft Excel spreadsheet	5 MB

Source2 is exported daily from a third-party system and stored in Microsoft SharePoint Online.

## Existing Environment. Customer Worksheet

Source2 contains a single worksheet named Customer Details.

The first 11 rows of the worksheet are shown in the following table.

CustomerID	CustomerCRMID	CompanyName	Address	City	Region	PostalCode	Country	Phone
1	ALFKI	Alfreds Futterkiste	Obere Str. 57	Berlin	DE	12209	Germany	030-0074321
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5	BERGS	Berglunds snabbköp	Berguvsvägen 8	Luleå	SWE	S-958 22	Sweden	0921-12 34 65
6	BLAUS	Blauer See Delikatessen	Forsterstr. 57	Mannheim	DE	68306	Germany	0621-08460
7	BLONP	Blondesddsi père et fils	24, place Kléber	Strasbourg	FRA	67000	France	88.60.15.31
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All the fields in Source2 are mandatory.

The Address column in Customer Details is the billing address, which can differ from the shipping address.

## Existing Environment. Azure SQL Database

Source1 contains the following table:

- Orders
- Products
- Suppliers
- Categories
- Order Details
- Sales Employees

The Orders table contains the following columns.

Name	Is nullable	Data type	Example value	Key
OrderID	No	Int	10248	Primary key
CustomerID	Yes	NCHAR	VINET	Not applicable
OrderDate	Yes	Date	2021-01-04	Not applicable
RequiredDate	Yes	Date	2021-02-01	Not applicable
ShippedDate	Yes	Date	2021-01-16	Not applicable
Freight	Yes	Decimal	32.38	Not applicable
ShipName	Yes	NVARCHAR	Vins et alcools Chevalier	Not applicable
ShipAddress	Yes	NVARCHAR	59 rue de l'Abbaye	Not applicable
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ShipRegion	Yes	NVARCHAR	FRA	Not applicable
ShipPostalCode	Yes	NVARCHAR	511000	Not applicable
ShipCountry	Yes	NVARCHAR	France	Not applicable

The Order Details table contains the following columns.

Name	Is nullable	Data type	Example value	Key
ProductID	No	Int	11	Primary key
ProductName	No	NVARCHAR	Queso Cabrales	Not applicable
SupplierID	Yes	Int	5	Foreign key to Suppliers
CategoryID	Yes	Int	4	Foreign key to Categories
QuantityPerUnit	Yes	NVARCHAR	1 kg pkg.	Not applicable
Discontinued	No	Bit	0	Not applicable

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Name	Is nullable	Data type	Example value	Key
CategoryID	No	int	4	Primary key
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LastName	No	NVARCHAR	Davolio	Not applicable
FirstName	No	NVARCHAR	Nancy	Not applicable
Title	Yes	NVARCHAR	Sales Representative	Not applicable
HireDate	Yes	Date	2015-02-01	Not applicable
Region	Yes	NVARCHAR	WA	Not applicable
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##### Report Requirements

Northwind Traders requires the following reports:

- Top Products
- Top Customers
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The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

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The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

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Northwind Traders defines late orders as those shipped after the required shipping date.

The warehouse shipping department must be notified if the percentage of late orders within the current month exceeds 5%.

The reports must show historical data for the current calendar year and the last three calendar years.

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Northwind Traders identifies the following technical requirements:

- A single dataset must support all three reports.
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## **Question: 361**

**CertyIQ**

HOTSPOT -

You need to create the Top Customers report.

Which type of filter should you use, and at which level should you apply the filter? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Filter type:

Top N
Basic
Advanced

Level:

Page
Visual
Report

## Answer:

## Answer Area

Filter type:

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Level:

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## Explanation:

### Box 1: Top N -

The Top Customers report will show the top 20 customers based on the highest sales amounts in a selected order month or quarter, product category, and sales region.

### Box 2: Visual -

The reports must show historical data for the current calendar year and the last three calendar years.

Applying specific measures to the visual-level filter of a visualization is a very powerful technique to completely customize the items shown in a report. The presence of this filter requires special measures in order to display values related to items not included in the visual level filter.

## Reference:

<https://www.sqlbi.com/articles/filtering-the-top-3-products-for-each-category-in-power-bi/>

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of late orders.

Which type of visualization should you create?

- A. pie chart
- B. scatterplot
- C. bar chart

**Answer: C**

**Explanation:**

The On-Time Shipping report will show the following metrics for a selected shipping month or quarter:

The percentage of orders that were shipped late by country and shipping region

Bar and column charts are some of the most widely used visualization charts in Power BI. They can be used for one or multiple categories. Both these chart types represent data with rectangular bars, where the size of the bar is proportional to the magnitude of data values.

Reference:

<https://www.pluralsight.com/guides/bar-and-column-charts-in-power-bi>

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- The reports must be stored in a single Power BI workspace.
- Report data must be current as of 7 AM Pacific Time each day.

- The reports must provide fast response times when users interact with a visualization.
- The data model must minimize the size of the dataset as much as possible, while meeting the report requirements and the technical requirements.

## **Requirements.**

### **Security Requirements**

Access to the reports must be granted to Azure Active Directory (Azure AD) security groups only.

An Azure AD security group exists for each department.

The sales department must be able to perform the following tasks in Power BI:

- Create, edit, and delete content in the reports.
- Manage permissions for workspaces, datasets, and report.
- Publish, unpublish, update, and change the permissions for an app.
- Assign Azure AD groups role-based access to the reports workspace.

Users in the sales department must be able to access only the data of the sales region to which they are assigned in the Sales Employees table.

Power BI has the following row-level security (RLS) Table filter DAX expression for the Sales Employees table.

[EmailAddress] = USERNAME()

RLS will be applied only to the sales department users. Users in all other departments must be able to view all the data.

## **Question: 363**

**CertyIQ**

HOTSPOT -

You need to create a KPI visualization to meet the reporting requirements of the sales managers.  
How should you create the visualization? To answer, select the appropriate options in the answer area.  
NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Indicator:	<table border="1"><tr><td>Date[month]</td></tr><tr><td>Sales[sales_amount]</td></tr><tr><td>Sales[sales_id]</td></tr><tr><td>Targets[sales_target]</td></tr><tr><td>Weekly_Returns[total_returns]</td></tr></table>	Date[month]	Sales[sales_amount]	Sales[sales_id]	Targets[sales_target]	Weekly_Returns[total_returns]
Date[month]						
Sales[sales_amount]						
Sales[sales_id]						
Targets[sales_target]						
Weekly_Returns[total_returns]						
Trend axis:	<table border="1"><tr><td>Date[month]</td></tr><tr><td>Sales[sales_amount]</td></tr><tr><td>Sales[sales_id]</td></tr><tr><td>Targets[sales_target]</td></tr><tr><td>Weekly_Returns[total_returns]</td></tr></table>	Date[month]	Sales[sales_amount]	Sales[sales_id]	Targets[sales_target]	Weekly_Returns[total_returns]
Date[month]						
Sales[sales_amount]						
Sales[sales_id]						
Targets[sales_target]						
Weekly_Returns[total_returns]						
Target goals:	<table border="1"><tr><td>Date[month]</td></tr><tr><td>Sales[sales_amount]</td></tr><tr><td>Sales[sales_id]</td></tr><tr><td>Targets[sales_target]</td></tr><tr><td>Weekly_Returns[total_returns]</td></tr></table>	Date[month]	Sales[sales_amount]	Sales[sales_id]	Targets[sales_target]	Weekly_Returns[total_returns]
Date[month]						
Sales[sales_amount]						
Sales[sales_id]						
Targets[sales_target]						
Weekly_Returns[total_returns]						

Answer:

## Answer Area

Indicator:

Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Trend axis:

Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Target goals:

Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

### Explanation:

The sales managers require a visual to analyze sales performance versus sales targets.

Box 1: Sales[sales\_amount]

Value; The main measure which we want to evaluate

Example:

$\text{Sales} = \text{sum}(\text{FactInternetSales}[\text{SalesAmount}])$

Box 2: Date[month]

Trend; How Value performs in a time period, is it going upward, downward?

You can use Months as trend axis.

Box 3: Targets[sales\_target]

Target; What we want to compare the Value with

Reference:

<https://radacad.com/kpi-visual-in-power-bi-explained>

## **Case Study Description**

### **Introductory Info**

#### **Case Study -**

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All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

#### **Overview -**

Litware, Inc. is an online retailer that uses Power BI.

Litware plans to leverage data from an Azure SQL database that stores data for the company's live e-commerce website.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

#### **Existing Environment. Sales Data**

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Manager	manager_id	Integer
	name	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Float
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
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In the Date table, the date\_id column has a format of yyyyymmdd and the month column has a format of yyyyymm.

The week column in the Date table and the week\_id column in the Weekly\_Returns table have a format of yyyyww.

In the Sales table, the sales\_id column represents a unique transaction.

The region id column can be managed by only one sales manager.

#### Existing Environment. Data Concerns

You are concerned with the quality and completeness of the sales data. You must ensure that negative and

missing sales\_amount values do NOT contribute to the total sales amount calculation.

### Existing Environment. Reporting Requirements

Litware identifies the following reporting requirements:

Executives require a visual that shows sales by region.

Executives require a visual that shows returns by region manager and the sales managers that report to them.

The sales managers must be able to see only the sales data of their respective region.

The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

### Question: 364

CertyIQ

HOTSPOT -

You publish the dataset to powerbi.com.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
You need an on-premises data gateway to refresh the dataset.	<input type="radio"/>	<input type="radio"/>
You need to configure a scheduled refresh of the dataset.	<input type="radio"/>	<input type="radio"/>
You can use Basic authentication on the dataset to connect to the data.	<input type="radio"/>	<input type="radio"/>

Answer:

### Answer Area

Statements	Yes	No
You need an on-premises data gateway to refresh the dataset.	<input type="radio"/>	<input checked="" type="radio"/>
You need to configure a scheduled refresh of the dataset.	<input type="radio"/>	<input checked="" type="radio"/>
You can use Basic authentication on the dataset to connect to the data.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

No

Azure SQL Server, therefore no need for an on-premise Gateway as Service and Azure are in the cloud.

## No

Direct Query mode for the DB connection, so no need to schedule a refresh. Direct Query is a live connection.

## No

Azure SQL supports the following connections from Power BI: Windows, Database and Microsoft Account. (Basic is reserved for Power Query Online. Do not confuse Database with Basic.):

<https://learn.microsoft.com/en-us/power-query/connectors/azuresqldatabase>

<https://learn.microsoft.com/en-us/power-bi/connect-data/service-azure-sql-database-with-direct-connect>

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## Case Study Description

### Introductory Info

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	year	Integer
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The sales department requires reports that contain the number of sales transactions.

Users must be able to see the month in each report as shown in the following example: Feb 2020.

The customer service department requires a visual that can be filtered by both sales month and ship month independently.

The maximum allowed latency to include transactions in reports is five minutes.

## Question: 365

CertyIQ

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	username	Varchar
Manager	manager_id	Integer
	name	Varchar
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	sales_date_id	Integer
	sales_amount	Float
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Date	date_id	Integer
	date	Date
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	year	Integer
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The sales managers require a visual to analyze sales performance versus sales targets.

The sales department requires reports that contain the number of sales transactions. Users must be able to see the month in each report as shown in the following example: Feb 2020. The customer service department requires a visual that can be filtered by both sales month and ship month independently. The maximum allowed latency to include transactions in reports is five minutes. Question What should you create to meet the reporting requirements of the sales department?

- A. a measure column that uses the following formula: `SUMX(FILTER('Sales', 'Sales'[sales_amount] > 0), [sales_amount])`
- B. a calculated column that uses the following formula: `ABS(Sales[sales_amount])`
- C. a calculated column that uses the following formula: `IF(ISBLANK(Sales[sales_amount]),0, (Sales[sales_amount]))`
- D. a measure that uses the following formula: `SUM(Sales[sales_amount])`

#### Answer: A

#### Explanation:

A. a measure column using:

DAX

Copy

Edit

`SUMX(FILTER('Sales', 'Sales'[sales_amount] > 0), [sales_amount])`

This filters out negative or zero values and sums only positive sales\_amount values.

Use case: Reporting only positive sales, e.g., excluding refunds/returns.

It's a measure, not a column—good for dynamic aggregation in visuals.

Likely a good candidate if the requirement is to report only positive sales totals.

#### Question: 366

CertyIQ

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#### Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four

business units.

#### Existing Environment -

##### Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

##### Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

##### Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

##### Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

## Requirements -

### Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

### Technical Requirements -

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

### Security Requirements -

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Contoso identifies the following security requirements for analyst access:

Analysts must be able to access all balance sheet and product catalog data.

Analysts must be able to access only the profit and loss data of their respective business unit.

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to share the quarterly reports with anyone.

Analysts must NOT be able to make new reports by using the balance sheet data.

### Report Requirements -

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

Column name	Data type	Sample value
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

The reports must be updated with the latest data by 5 AM each day. Question HOTSPOT -

You need to grant access to the business unit analysts.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Permissions required in powerbi.com:

▼
Access permissions to an app
The Member role to the workspace
The Viewer role to the workspace

Permissions for the profit and loss dataset:

▼
Build
Delete
Reshare

Answer:

## Answer Area

Permissions required in powerbi.com:

▼
Access permissions to an app
The Member role to the workspace
The Viewer role to the workspace

Permissions for the profit and loss dataset:

▼
Build
Delete
Reshare

Explanation:

Box 1: The Viewer role to the workspace

The Viewer role gives a read-only experience to its users. They can view dashboards, reports, or workbooks in the workspace, but can't browse the datasets or dataflows. Use the Viewer role wherever you would previously use a classic workspace set to Members can only view Power BI content.

Capability	Admin	Member	Contributor	Viewer
Update and delete the workspace.	X			
Add/remove people, including other admins.	X			
Add members or others with lower permissions.	X	X		
Publish and update an app.	X	X		
Share an item or share an app.	X	X		
Allow others to reshare items.	X	X		
Create, edit, and delete content in the workspace.	X	X	X	
Publish reports to the workspace, delete content.	X	X	X	
View an item.	X	X	X	X
Create a report in another workspace based on a dataset in this workspace.	X	X	X	X <sup>1</sup>
Copy a report.	X	X	X	X <sup>1</sup>

#### Box 2: Build -

The analysts must be able to build new reports from the dataset that contains the profit and loss data.

Scenario: The reports must be made available to the board from powerbi.com.

The analysts responsible for each business unit must see all the data the board sees, except the profit and loss data, which must be restricted to only their business unit's data. The analysts must be able to build new reports from the dataset that contains the profit and loss data, but any reports that the analysts build must not be included in the quarterly reports for the board. The analysts must not be able to share the quarterly reports with anyone.

Reference:

<https://www.nickyvv.com/2019/08/the-new-power-bi-workspace-viewer-role-explained.html>

Deploy and Maintain Deliverables

#### Question: 367

CertyIQ

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#### Existing Environment -

##### Data and Sources -

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Product ID	Product name	Product description	Product category	Business unit
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RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Deraileur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

## **Business Issues -**

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

## **Requirements -**

### **Planned Changes -**

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

### **Technical Requirements -**

Contoso wants the reports and datasets refreshed with minimum manual effort.

The company wants to provide the board with a single package of reports that will contain custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

### **Security Requirements -**

The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

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Analysts must NOT be able to make new reports by using the balance sheet data.

### **Report Requirements -**

You plan to relate the balance sheet table to a date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

The date table will contain the columns shown in the following table.

<b>Column name</b>	<b>Data type</b>	<b>Sample value</b>
Date	Date	4-Apr-2020
Month	Integer	202004
Month Name	Text	February
Quarter	Integer	20202
Year	Integer	2020

The definitions and attributes for the products, departments, and business units must be consistent across all the reports.

The board must be able to get the following information from the quarterly reports:

Revenue trends over time

The ending balances of each account

Changes in long-term liabilities from the previous quarter

The percent of total revenue contributed by each product category

A comparison of quarterly revenue versus the same quarter from the previous year

The reports must be updated with the latest data by 5 AM each day. Question HOTSPOT -

How should you distribute the reports to the board? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Grant access by:

Sharing individual reports
Using a workspace membership
Using an app

Grant access to:

A dynamic distribution list
A mail-enabled security group in Azure Active Directory
Individual user emails

Answer:

## Answer Area

Grant access by:

Sharing individual reports
Using a workspace membership
Using an app

Grant access to:

A dynamic distribution list
A mail-enabled security group in Azure Active Directory
Individual user emails

Explanation:

1. Using an App
2. A mail-enabled security group in Azure Active Directory

**Box 1: Using an App**

**Box 2: A mail-enabled security group in Azure Active Directory**

Mail-Enabled Security Group -

This group also contains a list of email addresses of members and can also be used to control access to OneDrive and SharePoint.

The Mail-Enabled Security Group can be created in the Office 365 Admin Portal

Note: The reports must be made available to the board from powerbi.com. An Azure Active Directory (Azure AD) group will be used to share information with the board.

Incorrect:

\* Distribution Group

This group can also be called and Distribution List. The Distribution Group is a group which contains a list of email addresses of members, all of whom will be sent an email when an email is sent to the distribution groups email address.

The Distribution Group can be created in the Azure Active Directory

Reference:

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-share-dashboards>

<https://www.fourmoo.com/2020/04/01/power-bi-which-groups-can-be-used-to-set-permissions-in-power-bi/>

## Question: 368

CertyIQ

Introductory Info Case Study -

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study. At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

To start the case study -

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

Overview -

Contoso, Ltd. is a manufacturing company that produces sports equipment. Contoso holds quarterly board meetings for which financial analysts manually prepare

Microsoft Excel reports, including balance sheets and profit and loss statements for each of the company's four business units.

Existing Environment -

Data and Sources -

Data for the reports comes from the sources shown in the following table.

Data type	Description
Azure SQL database	Detailed revenue, cost, and expense data Uses a public endpoint
Microsoft Dynamics 365 Business Central	Summary balance sheet data and product catalog data

The balance sheet data is unrelated to the profit and loss results other than they both relate to dates.

Balance Sheet Data -

The balance sheet data is imported and includes the final monthly balances of each account in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

The balance sheet data always includes a row for each account for each month.

#### Product Catalog Data -

The product catalog shows how products roll up to product categories, which roll up to the business units. The product list is provided in the format shown in the following table.

Product ID	Product name	Product description	Product category	Business unit
HL-U509-R	Sport-100 Helmet, Red	Universal fit, well-vented, lightweight, snap-on visor	Accessories	Unit A
RA-H123	Hitch Rack - 4-Bike	Carries four bikes securely, steel construction, fits a 2-inch receiver hitch	Accessories	Unit A
BK-M18S-40	Mountain-500 Silver, 40	Suitable for any type of riding, on- or off-road, fits any budget, smooth-shifting with a comfortable ride	Bikes	Unit B
FD-2342	Front Derailleur	Wide-link design	Components	Unit A

Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

#### Business Issues -

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

#### Requirements -

##### Planned Changes -

Contoso plans to automate and standardize the quarterly reporting process by using Power BI. The company wants to reduce how long it takes to populate the reports to less than two days. The company wants to create common logic for the business units, products, and departments. The logic will be used across all reports, including but not limited to the quarterly reporting for the board.

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Contoso wants the reports and datasets refreshed with minimum manual effort.

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#### Report Requirements -

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A comparison of quarterly revenue versus the same quarter from the previous year

The reports must be updated with the latest data by 5 AM each day. Question You need to ensure that the data is updated to meet the report requirements. The solution must minimize configuration effort.

What should you do?

- A. From each report in powerbi.com, select Refresh visuals.
- B. From Power BI Desktop, download the PBIX file and refresh the data.
- C. Configure a scheduled refresh without using an on-premises data gateway.
- D. Configure a scheduled refresh by using an on-premises data gateway.

#### Answer: C

#### Explanation:

**C is the answer. The database is on Azure database, not on-premise**

"Scheduled refresh of reports isn't supported with Dynamics 365 (on-premises) datasets that are published to the Power BI service. You can refresh reports using in Microsoft Power BI Desktop or Microsoft Office Excel and then upload the reports to the Power BI service."

So D is impossible. C is correct.

#### Question: 369

**CertyIQ**

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A comparison of quarterly revenue versus the same quarter from the previous year

■

The reports must be updated with the latest data by 5 AM each day. Question What is the minimum number of Power BI datasets needed to support the reports?

- A. a single imported dataset
- B. two imported datasets
- C. two DirectQuery datasets
- D. a single DirectQuery dataset

**Answer: B**

**Explanation:**

Note:

Analysts must be able to create new reports from the dataset that contains the profit and loss data, but the reports built by the analysts must NOT be included in the quarterly reports for the board.

Analysts must NOT be able to make new reports by using the balance sheet data.

Two datasets are required.

Need DAX for: A comparison of quarterly revenue versus the same quarter from the previous year. Also see other questions in this Case study which uses DAX expressions.

Incorrect:

Not Direct Query: Direct Query Limited Transformations.

You are not able to use all of the normal Power Query transformation features. Particular DAX functions are not available in this method as well. So if your data is poorly structured or needing lots of transformation, sometimes Direct Query is not a viable option.

Reference:

<https://www.tessellationtech.io/import-vs-direct-query-power-bi/>

# Thank you

Thank you for being so interested in the premium exam material.

I'm glad to hear that you found it informative and helpful.

If you have any feedback or thoughts on the bumps, I would love to hear them.  
Your insights can help me improve our writing and better understand our readers.

## Best of Luck

You have worked hard to get to this point, and you are well-prepared for the exam  
Keep your head up, stay positive, and go show that exam what you're made of!

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