

Microsoft Power BI Data Analyst

Microsoft PL-300

Version Demo

Total Demo Questions: 53

Total Premium Questions: 533

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Topic Break Down

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QUESTION NO: 1

You have a measure named Sales Amount that calculates total sales.

You need to create a measure that returns sales for the equivalent period in the previous year.

Which DAX expression should you use?

- A. `CALCULATE ( [Sales Amount], SAMEPERIODLASTYEAR ( 'Date'[Date] ) )`
- B. `SUM ( [Sales Amount], SAMEPERIODLASTYEAR ( 'Date'[Date] ) )`
- C. `CALCULATE ( [Sales Amount], LASTDATE ( 'Date'[Date] ) )`
- D. `COUNTROWS ( SAMEPERIODLASTYEAR ( 'Date'[Date] ) )`

ANSWER: A

Explanation:

`CALCULATE ( [Sales Amount], SAMEPERIODLASTYEAR ( 'Date'[Date] ) )` is correct. `SAMEPERIODLASTYEAR` returns a table of dates shifted back one year from the current date context. `CALCULATE` applies that date table as a filter while evaluating the existing Sales Amount measure.

For example, when a visual is filtered to March 2025, the measure evaluates Sales Amount for March 2024. The Date table should contain a continuous range of dates and have an active relationship to the sales fact table. See [SAMEPERIODLASTYEAR function \(DAX\)](#) and [CALCULATE function \(DAX\)](#).

QUESTION NO: 2

You have a Sales table that contains transaction rows and a Product table that contains product attributes.

You need to design the model to support analysis of sales by product category. The solution must follow star schema design principles.

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

NOTE: Each correct selection is worth one point.

- A. Create the Product table with one row for each ProductID.
- B. Create a one-to-many relationship from Product[ProductID] to Sales[ProductID].
- C. Merge the Product table into the Sales table and remove ProductID.
- D. Create a many-to-many relationship from Product[ProductID] to Sales[ProductID].
- E. Create a calculated column in Sales that sums sales by product category.

ANSWER: A B

Explanation:

Create the Product table as a dimension table that contains one row for each ProductID. A dimension table stores descriptive attributes, such as product name, category, and brand, at a consistent grain. The Sales table remains the fact table because it contains transaction-level rows and numeric measures.

Create a one-to-many relationship from Product[ProductID] to Sales[ProductID]. Product is on the one side because each product identifier occurs once in the dimension, while the same product can occur in many sales transactions. This allows product-category filters to propagate to Sales and produce correct sales aggregations.

For guidance about fact tables, dimension tables, and relationships in a star schema, see [Understand star schema and the importance for Power BI](#).

QUESTION NO: 3

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

ANSWER: A D

Explanation:

To apply the same custom styling to DashboardA with minimal effort, first use **From ReportA save the current theme**. A Power BI report theme is represented as a JSON file. Saving the report's current theme downloads or preserves that JSON definition, including applicable colors and other visual formatting settings, so the existing theme does not need to be recreated manually.

Next, use **From DashboardA upload a JSON theme**. Power BI dashboards support applying a theme by uploading a JSON theme file. Uploading the JSON saved from ReportA applies the custom theme to DashboardA and maintains consistency with the report's established appearance. This approach directly reuses the theme artifact already created for the report, minimizing both development time and the risk of manually introducing inconsistent formatting.

Microsoft documents how report themes can be saved as JSON files and then reused, as well as how custom JSON themes define formatting settings. See [Use report themes in Power BI Desktop](#) and [Export report themes](#).

QUESTION NO: 4

The table has the following columns.

Name	Sample value
Date	2022-06-01
Year	2022
Month Number	6
Month Name	June
Year Month	2022 Jun

You need to add a column that will be used to sort the Year Month column chronologically.

Month Year Sort = [Year] +

Answer: See the answer in explanation.

Explanation:

Answer as.



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



Answer:

Explanation:



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 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?

- | | |
|----|--|
| A. | Disable the auto date/time option. |
| B. | Create a Date table and select Mark as Date Table . |
| C. | Create a relationship between the Date table and the Sales table. |
| D. | Disable the load on the Date table. |
| E. | Remove the relationship between the Product table and the Sales table. |

- A. Option A
- B. Option B
- C. Option C
- D. Option D

ANSWER: A D

Explanation:

To reduce model size while preserving month and quarter analysis, disable the Auto date/time feature and use a single dedicated date table containing the required calendar attributes. Auto date/time creates hidden, automatically generated date tables for eligible date columns. In a sales model, these local date tables can add unnecessary storage and metadata, particularly when several date columns exist. Disabling the feature prevents Power BI from maintaining those hidden tables.

A dedicated date table provides a reusable calendar dimension with a Date column plus Year, Month, Month Number, Quarter, and any required fiscal attributes. Relating this table to the sales fact table retains filtering and grouping by month and quarter, while avoiding repeated hidden date hierarchies. The date table should be marked as a date table when appropriate, so that time-intelligence behavior and date-based analysis use the intended calendar. This approach is the recommended modeling pattern for models that require a consistent calendar and efficient analysis across time.

Microsoft documents the storage implications and behavior of automatically generated date tables in [Auto date/time guidance](#) and describes how to create and mark a calendar dimension in [Set and use date tables in Power BI Desktop](#).

QUESTION NO: 5

You create a Power BI report1 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. Dependencies
- C. Server requests
- D. DAX query

ANSWER: D E

Explanation:

DAX query and **Visual display** are duration metrics shown in the Power BI Performance analyzer results for a visual. Performance analyzer records the time required to load or refresh each report visual, then provides a breakdown that helps identify where that visual's time is being spent. DAX query represents the time Power BI requires to run the query that retrieves and calculates the data needed by the visual. This is particularly useful when investigating inefficiencies in measures, complex filter context, model design, or query execution. Visual display represents the time required to render the returned data as the visual on the report canvas. This measurement helps distinguish a calculation or data-retrieval delay from time consumed by drawing and formatting the visual itself. Together, these timings allow an analyst to determine whether performance work should focus on the semantic model and DAX calculations or on the visual's rendering complexity. Microsoft describes Performance analyzer as a tool for measuring how long each report visual takes to load and for inspecting its timing breakdown. See [Use Performance Analyzer in Power BI Desktop](#) and [Power BI optimization guidance](#).

QUESTION NO: 6

You are configuring a Power BI report for accessibility as shown in the following table.

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: B

Explanation:

Theme colors is the appropriate setting for changing the report-wide default color palette used by Power BI visuals. A report theme provides a consistent set of colors that visuals use when they render categories, series, backgrounds, text, and other theme-governed elements. By selecting a palette with colors that have sufficient contrast and are distinguishable without relying solely on red-versus-green differences, the report can be made more usable for people with color vision deficiency. The configured palette is applied consistently to existing visuals where the visual has not been manually overridden, and it is also used as the default for newly created visuals. This makes theme configuration the scalable approach instead of changing colors separately in every visual. Microsoft recommends using accessible color combinations and supplementing color with labels, patterns, or other non-color cues where a distinction is important. See [Report themes in Power BI Desktop](#) and [Create accessible Power BI reports](#).

QUESTION NO: 7

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

Uses 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.

NOTL Each correct selection is worth one point.

- A. Remove the rows in which sales [status] has a value of Canceled.
- B. Change the data type of sale [Delivery_Time] to Integer
- C. Removes (Canceled Date).
- D. Split Sales [Sale_Date] into separate date and time columns.
- E. Remove sales [Sales_Date].

ANSWER: A C

Explanation:

Removing the rows in which sales [status] has a value of Canceled reduces the number of records that Power Query must retain and load into the data model. Because analysis uses only finished sales, excluding canceled sales preserves the required analytical data while reducing data volume. Filters should generally be applied as early as possible in a query so that less data is processed by later transformations and loaded to the model. When the source supports query folding, this filter can also be translated to the source query, reducing data transferred to Power BI.

Removing (Canceled Date) also reduces the model's loaded data because that column is not needed for analysis of finished sales. Removing unused columns lowers the amount of data Power Query processes and the memory required by the Power BI model. Column removal is particularly valuable when a column has many distinct values or contains date/time values, because reducing unnecessary model columns can improve refresh and load performance without changing report results. Microsoft recommends filtering rows and removing columns that are not needed as part of data-reduction and query-performance practices. See [Power Query best practices](#) and [Data reduction techniques for Import models](#).

QUESTION NO: 8

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:

Pin a card visual to a dashboard and set an alert on the tile. A card is appropriate because it can display the current refrigerator temperature as a single numeric value. After the card is pinned from the report to a Power BI dashboard, the resulting dashboard tile can have a data alert rule configured for it. Set the rule to trigger when the tile's value is greater than 4 degrees Celsius. Power BI evaluates the supported dashboard tile as its data refreshes, including when data is updated from a streaming source, and sends a notification when the configured threshold is crossed.

Data alerts are created and managed in the Power BI service from the dashboard tile's context menu by selecting *Manage alerts* or *Set alert*. The alert can notify the report owner through Power BI notifications and, where supported by the configuration, email. This is suited to operational monitoring because the alert is based on the value displayed by the tile rather than requiring someone to open and inspect the report. Microsoft documents that data alerts apply to supported dashboard tiles, including card tiles, and explains how to define threshold-based alert rules in the service. See [Data alerts in the Power BI service](#) and [Real-time streaming in Power BI](#).

QUESTION NO: 9

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 Data Load settings
- B. From the Power BI service, modify the Report settings.
- C. From Power BI Desktop, modify the Report settings
- D. From the Power BI service, modify the dataset permissions.

ANSWER: B C

Explanation:

From the Power BI service, modifying the Report settings is a complete solution because export behavior can be controlled for an individual report independently of the tenant-level export setting. In the report's settings, the report owner can set the export-data option to disallow exports. This report-level control prevents report consumers from exporting data from the visuals in ReportA while the tenant can continue to permit export for other reports.

From Power BI Desktop, modifying the Report settings is also a complete solution. Power BI Desktop provides a current-file report setting that lets the report author control whether end users can export data from visuals. After the author disables visual-data export and publishes the report, the restriction applies to consumers of that published report. This is useful when the author wants the export policy defined as part of the report file before deployment.

Both approaches apply a report-specific restriction, which is the appropriate scope when only ReportA must prevent visual-data exports. Microsoft documents the report-level export-data controls in [Export data from Power BI visualizations](#) and describes report settings in [Configure report settings in the Power BI service](#).

QUESTION NO: 10

You have a Power BI report for the procurement department. The report contains data from the following tables.

Table name	Source	Description	Column name	Approximate record count
Suppliers	Microsoft Dynamics 365	A list of all the suppliers approved for use by the company.	- ID - Name - Country	100,000
LineItems	Microsoft Dynamics 365	All individual purchases made by employees across the company. An average of five line items per invoice.	- ID - Invoice ID - Invoice Date - Supplier ID - Description - Units - Price per Unit - Discount - Price	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.

Name	Used field	Filter
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?

- A. Remove the rows from Lineitems where LineItems[invoice Date] is before the beginning of last month
- B. Merge Suppliers and LineItems.
- C. Group LineItems by LineItems[invoice id] and LineItems[invoice Date] with a sum of LineItems(price).
- D. Remove the LineItems[Description] column.

ANSWER: D

Explanation:

Remove the LineItems[Description] column. The description field is a text column that is not needed by the report visuals or by the stated relationship between Suppliers and Lineitems. Removing an unused column reduces the imported semantic model size while preserving the available data required to render the existing visualizations. This is especially useful for descriptive text fields, which often contain high-cardinality values and can consume relatively more storage than numeric or key columns because the model must maintain distinct values in its column dictionary. Power BI data-modeling guidance recommends removing columns that are not required for reporting, relationships, calculations, or security; doing so lowers memory consumption and can also improve refresh and query efficiency. The supplier key and line-item supplier key must remain to preserve the one-to-many relationship, and fields used in the displayed visual aggregations must remain available. Because the description column is not required for those purposes, its removal is a safe model-size optimization that does not alter the report's visual output. See Microsoft's guidance on [reducing imported model data](#) and [Power BI model design](#).

QUESTION NO: 11

You have a Power BI report that uses a Microsoft SQL Server source.

You publish the semantic model to the Power BI service. The SQL Server instance is located on the company network and is not accessible from the internet.

You need to configure scheduled refresh for the semantic model.

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

NOTE: Each correct selection is worth one point.

- A. Install and configure an on-premises data gateway on a computer that can connect to the SQL Server instance.
- B. Create or configure a SQL Server data source on the gateway by using database credentials.
- C. Configure a report-level filter for the SQL Server table.
- D. Publish the report as a Power BI app.
- E. Change the semantic model storage mode to Live connection.

ANSWER: A B

Explanation:

Install and configure an **on-premises data gateway** on a computer that can connect to the SQL Server instance. The gateway provides the secure bridge that allows the Power BI service to access data sources located on the private company network.

Create or configure a SQL Server data source on the gateway by using credentials that have permission to access the required database. The semantic model must be mapped to a matching gateway data source before scheduled refresh can retrieve the on-premises data.

A personal gateway is not the preferred solution for centrally managed semantic models because the standard on-premises data gateway supports shared administration and multiple users. See [What is an on-premises data gateway?](#) and [Configure scheduled refresh](#).

QUESTION NO: 12

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 Power BI Desktop, select Personalize visuals.
- B. From the Power BI service, enable the Pages pane.
- C. From the Canvas background setting of Power BI Desktop, configure the Image fit setting.
- D. From the Canvas settings of Power BI Desktop, set a custom width and height.

ANSWER: D

Explanation:

From the Canvas settings of Power BI Desktop, set a custom width and height. Power BI report pages have a canvas size that determines the layout area available to visuals. For a report intended for a vertical display, configuring a custom page size lets the author define portrait-oriented dimensions, with the height greater than the width. This aligns the report canvas to the physical screen orientation and reduces unused space that can result when a landscape-oriented page is displayed on a portrait screen. A custom size also gives the report author precise control over the report's aspect ratio and pixel dimensions, so visuals can be arranged to use the available vertical area effectively while remaining readable. Power BI Desktop exposes these page-size controls in the formatting settings for the report canvas; authors can select a custom type and enter the desired width and height. The published report retains that page layout, allowing the designed canvas to be used appropriately when rendered on the target display. For implementation details, see [Microsoft Learn: Create reports in Power BI Desktop](#) and [Microsoft Learn: Format report visuals](#).

QUESTION NO: 13

You have a semantic model that uses a live connection to a semantic model in the Power BI service. You need to create a Power BI report named RPT1 that only uses the live connection.

Which three components can you add to RPT1? Each correct answer presents a complete solution.

- A. a report measure
- B. a new column
- C. a calculated table
- D. a calculated column
- E. a new table

ANSWER: A C D

Explanation:

a **report measure**, a **calculated table**, and a **calculated column** are DAX-based modeling artifacts that can be authored without importing data from an additional external data source. A report measure is scoped to the report and lets the report author define calculations for use in visuals while preserving the existing Power BI semantic model as the central source of business data. Calculated tables are defined by DAX expressions, so their rows are derived from the model rather than retrieved through a separate data connection. Likewise, a calculated column is computed with DAX and stored as part of the local model metadata used by the report. These additions provide report-specific calculations or derived structures while continuing to use the connected Power BI semantic model for the underlying business data. Power BI's composite-model capabilities support extending a connected semantic model with local model objects, including local measures and DAX-derived tables and columns. See [Use composite models in Power BI Desktop](#) and [Calculated tables in Power BI Desktop](#).

QUESTION NO: 14 - (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.

Create a relationship between the Sales Employees table and the

one-to-one
one-to-many
many-to-one
many-to-many

Orders table
Suppliers table
Order Details table
Customer Details worksheet

ANSWER:

Create a relationship between the Sales Employees table and the

one-to-one
one-to-many
many-to-one
many-to-many

Orders table
Suppliers table
Order Details table
Customer Details worksheet

Explanation:

Use a many-to-one relationship between the Sales Employees table and the Suppliers table. In this model, the Sales Employees table functions as the security assignment table: each employee is associated with one sales region, while multiple employee records can be associated with the same region value. This makes the employee-side region values the many side of the relationship and the matching region values in the Suppliers table the one side used for the relationship configuration.

This relationship is needed so that row-level security can use the signed-in user's employee assignment to restrict the rows that are visible through the model. When an RLS role filters Sales Employees to the current employee, the relationship provides the path needed for the employee's authorized regional context to be applied to the supplier data and, through the model's related tables, to the data shown in reports. Relationship design is important for RLS because a security filter must have an appropriate relationship path to reach the tables whose rows need to be protected.

Power BI relationships are based on matching column values and a cardinality that reflects how those values occur in each table. A many-to-one relationship is appropriate when several rows on the Sales Employees side can match the same region key represented on the Suppliers side. Microsoft's guidance on [model relationships in Power BI](#) explains how cardinality controls table relationships, and its [row-level security documentation](#) describes using model relationships to propagate security filters.

QUESTION NO: 15

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. Use quick insights on the dashboard.
- B. Hide the report page.
- C. Ask a question by using Q&A.
- D. Add the visual to the report.
- E. Pin the visual to the dashboard.

ANSWER: C E

Explanation:

Ask a question by using Q&A. is appropriate because Power BI Q&A lets a user create a visual interactively by querying the workspace semantic model with natural language, such as asking for inventory by location. The result can be a chart, table, or other suitable visualization based on the fields and measures available in the model. Crucially, this creates the needed insight without requiring the existing report to be edited or a new report page to be designed, which meets the requirement to minimize impact on the report.

After Q&A produces the inventory-by-location result, **Pin the visual to the dashboard.** adds that result as a dashboard tile. Power BI supports pinning a Q&A visual directly to an existing dashboard, allowing the dashboard to display the newly requested information independently of visuals already authored in the report. The dashboard tile remains connected to the underlying semantic model, so it can reflect refreshed inventory data. Microsoft documents Q&A creation and pinning in [Power BI Q&A for business users](#) and dashboard tile behavior in [Introduction to dashboard tiles](#).

QUESTION NO: 16

You plan to embed multiple visualization in a public website.

Your Power BI infrastructure contains the visualizations configured as shown in the following table.

Which two visualizations can you embed into the website? Each correct answer presents a complete the solution.

NOTE: Each correct selection is worth one point.

- A. Visual1
- B. Visual2
- C. Visual3
- D. Visual4
- E. Visual5

ANSWER: B D

Explanation:

Visual2 and Visual4 can be embedded in the public website because they meet the requirements for Power BI's *Publish to web* capability. Publish to web creates a publicly accessible URL or iframe that can be placed in a website, blog, or other public-facing page. People viewing that content do not need to sign in to Power BI, which makes this approach appropriate only for data intended to be available publicly.

The feature supports publishing a report page or an individual visual from a report when the content is eligible for public embedding and the tenant administrator allows users to create publish-to-web embed codes. The resulting embed code renders the selected report content on the website and can retain supported interactivity, such as filtering and navigation, subject to the published content's configuration.

Before using this method, verify that Visual2 and Visual4 contain no confidential, personal, proprietary, or restricted information. Microsoft notes that published content is available on the internet and can be viewed by anyone who obtains the link. For implementation details and governance considerations, see [Publish to web from Power BI](#) and [Power BI tenant settings for Publish to web](#).

QUESTION NO: 17

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

ANSWER: A

Explanation:

Create a dataflows connection that has Import mode selected and schedule a daily refresh. Import mode loads the dataflow's output into the semantic model during refresh, so report visuals query in-memory data rather than issuing queries to the dataflow or the on-premises SQL Server whenever a user interacts with a report. This minimizes online processing while also supporting fast visual rendering and calculations through the Power BI in-memory engine.

A daily scheduled refresh is appropriate because the required reporting window ends with the previous day. The refresh can be scheduled after the source system has completed its daily load, ensuring that the imported model contains current-year data through the prior day without unnecessary intraday refresh activity. The enhanced compute engine can improve dataflow performance and supports optimized consumption scenarios, but it does not change the benefit of using an imported semantic model when low interactive query latency and reduced online workload are priorities.

Microsoft documents that dataflows can be consumed by semantic models using Import or DirectQuery, and that Import brings data into the model. Scheduled refresh keeps imported data current according to the configured cadence. See [Configure dataflow consumption](#) and [Data refresh in Power BI](#).

QUESTION NO: 18

You need to create a relationship between the Weekly_Returns table and the Date table to meet the reporting requirements of the regional managers. What should you do?

- A.** In the Weekly_Returns table, create a new calculated column named date-id in a format of yyyyymmdd and use the calculated column to create a relationship to the Date table.
- B.** Add the Weekly_Returns data to the Sales table by using related DAX functions.

C. Create a new table based on the Date table where date-id is unique, and then create a many-to-many relationship to Weekly_Return.

ANSWER: A

Explanation:

In the Weekly>Returns table, create a new calculated column named date-id in a format of yyyyymmdd and use the calculated column to create a relationship to the Date table. This creates a shared date key at the appropriate reporting grain, allowing the Date table to act as the dimension through which weekly returns can be filtered, grouped, and compared with sales in visuals. The calculated date-id should represent the applicable date for each weekly-return record, such as the week-ending date, and use the same key format and values as the corresponding date-id in the Date table. With a unique date key on the Date table, Power BI can create a standard one-to-many relationship from Date to Weekly_Returns. This model design enables report filters and date-based calculations to propagate consistently to the weekly returns data while retaining a proper star-schema-style dimension relationship. Microsoft recommends using a dedicated date table for time-based reporting and relating fact tables to that table through a date column or date key. See [Date table guidance](#) and [Understand model relationships in Power BI Desktop](#).

QUESTION NO: 19

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
- E. Cannot be determined from the provided information.

ANSWER: E

Explanation:

Cannot be determined from the provided information is correct because the question does not define the reports' data sources, whether the reports share a common semantic model, required data freshness, source capabilities, security boundaries, or whether Import or DirectQuery storage mode is required. Power BI reports can be built on a shared semantic model, so one dataset can support multiple reports when their data and modeling requirements can be satisfied by that model. However, the number and storage mode of required datasets are architecture decisions driven by the omitted requirements; they cannot be inferred merely from the existence of reports. For example, a shared imported semantic model might be appropriate when scheduled refresh and imported data meet the needs, while DirectQuery might be required when data must remain at the source or near-real-time querying is necessary. Separate semantic models can also be necessary when reports need independent source connections, security designs, ownership, or refresh behavior. Microsoft describes semantic models as reusable resources that can support many reports, and its storage-mode guidance emphasizes choosing Import, DirectQuery, or composite models based on specific requirements. Therefore, no defensible minimum dataset number or storage mode can be selected without the missing scenario details. See [Microsoft Learn: Semantic models in the Power BI service](#) and [Microsoft Learn: Semantic model modes in the Power BI service](#).

QUESTION NO: 20 - (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
 - MonthNumberOfYear
 - Quarter
 - Sales_SRC
 - Time Intelligence
 - Total Cost
 - Total Order Qty
 - Total Sales
 - Total Sales rolling average
 - Unit Price
 - 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:	Month Total Cost Total Order Qty Total Sales Year
Date:	Date Month Total Sales Year
Period:	Days Months Quarters Years

Explanation:

A monthly rolling average requires a numeric measure to average, a date column that establishes the chronological sequence, and a monthly interval for the rolling window. Configure the base value as **Total Sales**, because this is the sales value that the quick measure will calculate across the rolling range. Configure the date as **Date**, because a true date field lets Power BI order observations over time and evaluate each rolling period correctly. Configure the period as **Months**, which makes the rolling average operate over month-based intervals rather than day, quarter, or year intervals.

With these settings, Power BI creates the quick-measure logic using the current date context and a set of preceding monthly periods to calculate the average of Total Sales. This is appropriate when the report needs to smooth month-to-month variation while preserving the trend in sales performance over time. The date table or date column should support proper chronological filtering so the measure can identify the relevant monthly range in each visual context. Microsoft documents rolling-average quick measures as calculations that use a base value, a date field, and a period granularity; see [Use quick measures in Power BI Desktop](#). For guidance on using a dedicated, continuous date table for time-based calculations, see [Design guidance for date tables in Power BI](#).

QUESTION NO: 21

You have a Power BI workspace named BI Data that contains a dataset named BI Finance.

You have the Build permission for the 81 Finance dataset but you do NOT have permissions for the workspace,

You need to connect to BI Finance and create a report.

Which 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: C D

Explanation:

Build permission on a Power BI semantic model (formerly called a dataset) is specifically intended to let a user create new reports that use that model, even when the user is not a member of the workspace that contains it. Therefore, creating a new report in the Power BI service and selecting a published dataset is a complete solution: the report can be authored against

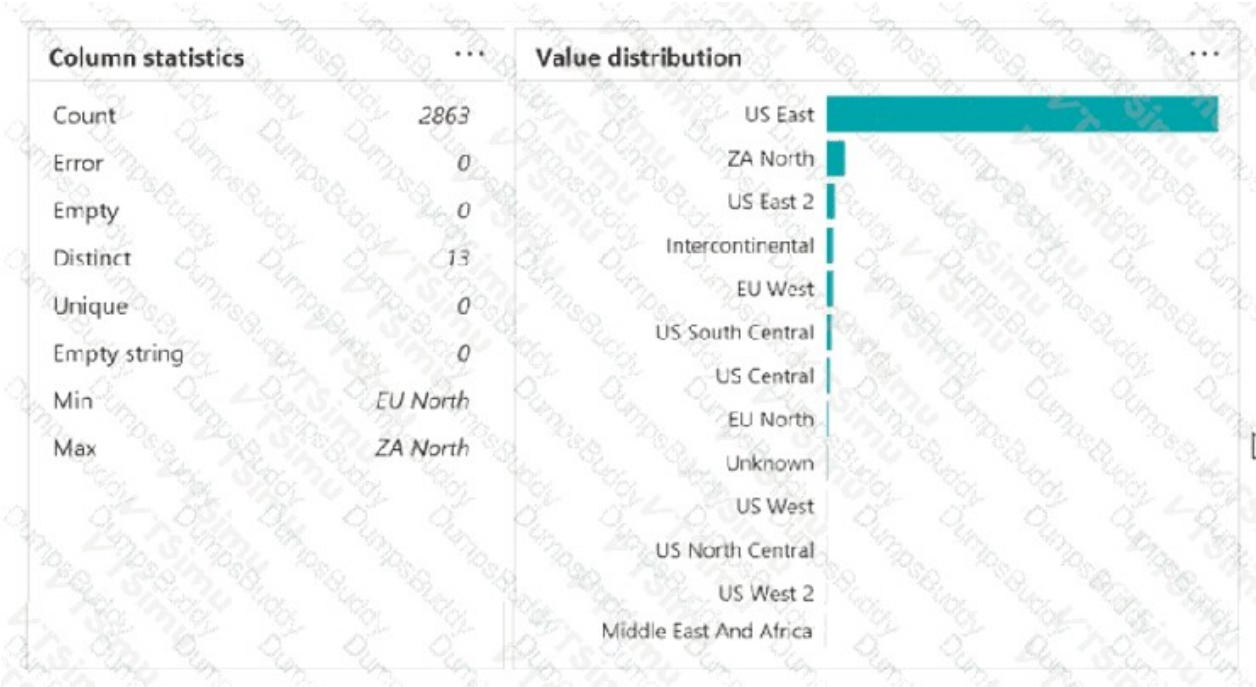
the BI Finance semantic model and saved in a location where the user has permission to create content. Microsoft documents that Build permission enables users to create reports based on a semantic model.

Connecting from Power BI Desktop to a shared dataset is also a complete solution. In current Power BI terminology, this connection is exposed through the *Power BI semantic models* connector; older interfaces and exam wording refer to shared datasets. The user can select BI Finance, create a thin report that has a live connection to that semantic model, and then publish the report to an appropriate workspace. The underlying model remains centrally managed in BI Data, while the report can be created and maintained separately. This supports governed reuse of a single semantic model without granting workspace access. See [Build permission for semantic models](#) and [Connect to Power BI semantic models in Power BI Desktop](#).

QUESTION NO: 22 - (SIMULATION)

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.

The value that occurs the most frequently is [answer choice].

ANSWER: See the explanation for the answer

Explanation:

Selections:

The column statistics show **Unique = 0**, meaning no value appears exactly once. The value-distribution chart has the largest bar for **US East**, so it is the most frequent value.

QUESTION NO: 23

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. Contributor
- C. Member
- D. Admin

ANSWER: C

Explanation:

Member is the appropriate workspace role because it grants the required ability to manage workspace access while avoiding the broader administrative permissions of the Admin role. A workspace member can add or remove people whose workspace permissions are lower than the member's own permission level. Therefore, a user assigned the Member role can add users to the workspace as Contributors or Viewers, which satisfies the requirement to delegate membership management within a limited scope.

This follows the principle of least privilege: assign only the minimum level of access needed for the task. The Member role supports collaborative workspace management, including publishing and updating content, and allows controlled access management without granting full workspace administration. Microsoft documents the workspace roles and specifies that Members can add or remove users with lower permissions. For detailed role capabilities and restrictions, see [Roles in the new workspaces in Power BI](#). For Microsoft's broader guidance on applying least-privileged access, see [Microsoft Entra role-based access control best practices](#).

QUESTION NO: 24

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: A C

Explanation:

Creating a single role that filters `Country[Manager_Email]` by using the `USERNAME` DAX function implements dynamic row-level security. When a manager accesses the published semantic model in the Power BI service, `USERNAME()` resolves to that user's sign-in identity (typically their user principal name/email address). Filtering the `Country` table to the signed-in manager's email limits the visible country row to the manager's assigned country. Because the `Country` table's filter propagates through the model, the manager sees only related purchase data. This avoids creating and maintaining a separate role for every country, so the role count remains minimal. Microsoft documents the use of identity functions such as `USERNAME()` for dynamic security in RLS roles: [Microsoft Learn: Row-level security in Power BI](#).

Selecting *Apply security filter in both directions* for the relationship between `Purchase Detail` and `Purchase` ensures that the RLS filter can propagate across that relationship in the direction required to secure all related purchase records. This setting applies the security filter bidirectionally for that relationship, allowing the country-based dynamic filter to consistently constrain both tables involved in the purchase data path. Microsoft describes this relationship setting and its effect on RLS propagation in [Microsoft Learn: RLS and bidirectional relationships](#).

QUESTION NO: 25

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 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: C D

Explanation:

`Build` permission on a Power BI semantic model (formerly called a dataset) is specifically intended to let a user create new content based on that model without requiring workspace access. Therefore, creating a new report in the Power BI service and selecting a published dataset is a complete solution. The report is created as a thin report connected live to the existing `BI Finance` semantic model, so its governed model, measures, relationships, and refresh behavior are reused.

Connecting from Power BI Desktop to a shared dataset is also a complete solution. In current Power BI terminology, this experience is presented through the Power BI semantic models connector. A user who has `Build` permission can discover and connect to the shared semantic model, then design a report in Desktop. The resulting report retains a live connection to the central model; after authoring, the user can save or publish the report to a location where they have appropriate permission to create content.

Microsoft documents that `Build` permission permits users to create reports based on a semantic model and to connect to it from Power BI Desktop. See [Build permission for shared semantic models](#) and [Connect to Power BI semantic models in Power BI Desktop](#).

QUESTION NO: 26

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	- Publish Date - URL - Title - Full Text - Summary
Traffic	Website logs	Activity data from your company's entire website	- DateTime - URL Visited - IP Address - Browser Agent - Referring URL

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"
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 toad times.

Which two actions will reduce the toad times? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Remove the rows in Traffic in which Traffic [Referring URL] does not start with "/"
- B. Remove the rows in Posts in which Post [Publish Date] is in the last seven days.
- C. 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 [URL visited] does not contain "blog"

ANSWER: D E

Explanation:

Removing **Posts [Full Text]** and **Posts [Summary]** reduces the amount of data that Power Query must retrieve, transform, compress, and load into the semantic model. These long text fields are not required for the report's analysis of blog traffic or for the relationship between **Posts [URL]** and **Traffic [URL Visited]**. Excluding unneeded columns is an important model-design practice because it lowers model size, memory consumption, and refresh processing.

Removing Traffic rows where **Traffic [URL visited]** does not contain **"blog"** limits the fact table to visits relevant to the blog report. The remaining Traffic rows correspond to the report's stated subject and are the rows most likely to participate in the relationship to the Posts table. Loading fewer irrelevant fact rows reduces data-transfer and processing volume during refresh. When the source supports query folding, applying this row filter in Power Query can also allow the source system to perform the filtering before data is imported, further improving refresh efficiency.

Microsoft recommends removing columns and filtering rows that are not needed as early as practical in Power Query. See [Data reduction techniques for Import modeling](#) and [Power Query best practices](#).

QUESTION NO: 27

You are reviewing a query that produces 10,000 rows in the Power Query Editor.

You need to identify whether a column contains only unique values.

Which two Data Preview options can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Column profile
- B. Column distribution
- C. Show whitespace
- D. Column quality
- E. Monospace

ANSWER: A B

Explanation:

Column profile and **Column distribution** can both be used to establish whether every value in a column is unique. Column profile provides detailed profiling information for a selected column, including column statistics and a value distribution. Its statistics include the distinct count and unique count, enabling you to determine whether all non-null values occur only once. When the relevant counts indicate that each value is unique, the column meets the requirement.

Column distribution displays a visual representation of the frequency and distribution of values in each column. It includes distinct and unique value information, and the distribution visualization can reveal whether values occur once or are repeated. This makes it suitable for quickly assessing uniqueness directly from the data preview.

Because the query produces 10,000 rows, ensure that profiling is configured to use the entire data set rather than only the default sample when the result must apply to every row. In Power Query Editor, this setting is available from the status bar and ensures the displayed profile and distribution metrics represent all rows in the query. Microsoft documents these capabilities in [Data profiling tools in Power Query](#) and describes how to profile the entire data set in [Profiling data over the entire data set](#).

QUESTION NO: 28

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:

Rules is the appropriate conditional-formatting type because the required outcome is based directly on two numeric ranges with a fixed threshold. In the card visual's formatting settings, rules-based conditional formatting lets the report author define

conditions using comparisons such as greater than or equal to a specified number and less than that number, then assign a font color to each condition. A rule for values greater than or equal to 100 can set the data-label font to dark red, while a rule covering values below 100 can set it to dark gray. This approach is efficient because the threshold and the target colors are configured in the visual's conditional-formatting dialog without creating an additional DAX measure solely to return color codes. Power BI supports applying conditional formatting to visual elements based on rules, including selecting colors for defined value ranges. Microsoft's conditional-formatting guidance is available at [Microsoft Learn: Use conditional formatting in Power BI Desktop](#). For card-specific formatting capabilities, see [Microsoft Learn: Card visualizations in Power BI](#).

QUESTION NO: 29

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. Share the dashboard to the user.
- B. Create a subscription.
- C. Create a data alert.
- D. Tag the user in a comment.

ANSWER: B

Explanation:

Create a subscription. A Power BI subscription can send the user a scheduled email containing a snapshot of the dashboard, including the card visual that displays current-year total sales. The subscription schedule supports daily delivery, which directly meets the requirement for a notification every day rather than only when a value meets a condition. Because the user already has Viewer access to the workspace, they have the required access to view the dashboard content included in the subscription. Dashboard subscriptions are designed for distributing regularly scheduled updates to users and can be configured to deliver at a selected time each day. The email provides a link back to the Power BI dashboard, allowing the recipient to open and explore the current report content as permitted by their workspace role. Microsoft documents dashboard and report email subscriptions, including scheduling recurring deliveries, at [Subscribe to reports and dashboards in Power BI](#). For subscription availability and relevant licensing considerations, see [Power BI subscription considerations and limitations](#).

QUESTION NO: 30

You have the dataset shown in the following exhibit.

City	Sales Profit
Abbottsburg	\$173,947
Absecon	\$129,358
Accomac	\$157,768
Aceitunas	\$119,283
Airport Drive	\$162,500
Akhiok	\$259,554
Alcester	\$127,040
Alden Bridge	\$152,138
Alstead	\$106,147
Amado	\$136,718
Amanda Park	\$117,444
Andrix	\$130,710
Annamoriah	\$139,499
Antares	\$147,562
Antonio	\$113,056
Total	\$85,729,181

You need to ensure that the visual shows only the 10 cities that have the highest sales profit.

What should you do?

- A. Add a Top N filter to the visual.
- B. Configure the Sales Profit measure to use the RANKX function.
- C. Add a calculated column to the table that uses the TOPN function. In the visual, replace Sales Profit with the calculated column.
- D. Add a calculated column to the table that returns the city name if the city is in the top 10, otherwise the calculated column will return "Not in Top 10". In the visual, replace Sales Profit with the calculated column.

ANSWER: A

Explanation:

Add a Top N filter to the visual. Power BI supports Top N filtering directly in the Filters pane at the visual level, which is designed for limiting a visual to the highest- or lowest-ranked categories based on a specified value. Add the City field as a visual-level filter, change the filter type to *Top N*, enter 10, and in the *By value* well select the Sales Profit measure. Applying the filter causes the visual to retain only the 10 cities with the greatest Sales Profit in the current report filter context. This approach is dynamic: if slicers, page filters, report filters, or refreshed data change the Sales Profit values, Power BI recalculates the qualifying cities automatically. It also directly meets the requirement without changing the model or creating additional DAX logic. For the applicable procedure, see Microsoft Learn's guidance on [adding and configuring filters in Power BI reports](#). Microsoft's [visualization documentation](#) also describes how report visuals respond to filter context and interact with report filtering features.

QUESTION NO: 31

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

Uses 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.

NOTL Each correct selection is worth one point.

- A. Remove the rows in which sales [status] has a value of Canceled.
- B. Change the data type of sale [Delivery_Time] to Integer
- C. Remove Sales[Canceled Date].
- D. Split Sales [Sale_Date] into separate date and time columns.
- E. Remove sales [Sales_Date].

ANSWER: A C

Explanation:

Removing the rows in which sales [status] has a value of Canceled reduces the number of records loaded into the model while retaining the Finished sales records used for analysis. Filtering as early as possible is a Power Query performance best practice. When the source supports query folding, this filter can be translated to the source query, reducing the data transferred and processed during refresh.

Removing Sales[Canceled Date] also reduces the amount of data loaded because that column is not needed for the stated analysis. Removing unused columns early prevents Power Query and the Power BI model from carrying unnecessary values through later transformation and load steps. This can reduce refresh processing, model size, and memory consumption without changing the available Finished-sale analysis. The fact that consumers use only the date portion of the sale date does not require splitting the value into two columns; that operation would retain or create an unnecessary time component unless additional steps removed it.

Microsoft recommends filtering early and using query folding where possible to improve Power Query performance. See [Power Query best practices](#) and [Query folding basics](#).

QUESTION NO: 32

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:

No is correct because a report-level filter controls the data displayed by report visuals; it is not a mechanism for limiting the rows retrieved into the Power BI semantic model during an import. The stated goal is to import only a sample from a SQL Server table containing more than 100 million rows, so the row restriction must be applied before or as Power BI retrieves data. For a SQL Server source, this can be done by applying an Order Date filter in Power Query in a manner that query folds to the source, or by supplying a native SQL statement containing an appropriate `WHERE` clause. This lets SQL Server evaluate the predicate and return only qualifying rows, reducing development-time refresh volume, memory use, and load duration. Power Query query folding is specifically intended to push supported transformations back to the source system where they can be processed efficiently. Microsoft also documents using a native database query when connecting to SQL Server, which can be used to define the source-side selection logic. See [Power Query query folding](#) and [SQL Server database connector](#).

QUESTION NO: 33

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. Create a theme as a PBIVIZ file and import the theme into Power BI Desktop.

B. Create a theme as a JSON file and import the theme into Power BI Desktop.

C. From Power BI Desktop, use a built-in report theme.

D. From Power BI Desktop, customize the current theme.

ANSWER: B

Explanation:

Create a theme as a JSON file and import the theme into Power BI Desktop. A Power BI report theme is defined in a JSON file, which makes it portable and reusable across multiple reports. The JSON theme can centrally define corporate color palettes and default text styling, including font sizes, so report authors begin with the approved branding rather than applying formatting manually to every visual.

JSON themes also support visual-specific formatting through the `visualStyles` section. This allows the organization to establish consistent formatting defaults for bar charts, such as colors and relevant visual properties, while retaining a single version-controlled theme artifact that can be distributed to report creators. In Power BI Desktop, authors import the file by using the report theme controls, and the theme settings are applied to the current report. The same JSON file can then be imported into each additional report that requires the corporate design.

Microsoft documents that report themes use JSON files and can define both global report settings and formatting for individual visual types. See [Use report themes in Power BI Desktop](#) and [Report theme JSON file format](#).

QUESTION NO: 34 - (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
Open the **Font color** dialog for the Revenue column.
Set Format style to **Field value**.
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 Area



ANSWER:

Explanation:

The Revenue values need background conditional formatting because the requirement is to fill the cells with a particular color according to the numeric interval into which each value falls. In a Power BI table visual, conditional background formatting is configured from the field's **Background color** settings. This opens the conditional-formatting dialog for the Revenue column, which is the correct place to define how the cell fill changes dynamically as the measure value changes.

The required ranges use explicit numerical boundaries: one condition handles a value equal to zero, and the remaining conditions cover values above zero through progressively higher limits, including an open-ended final range. This pattern is best represented by the **Rules** format style. Rules allow a separate lower and upper boundary to be entered for each interval and allow the matching hexadecimal color to be selected for that interval. Power BI then evaluates the Revenue measure for every row and applies the background color belonging to the rule that contains that value.

After selecting Rules, a rule must be created and configured for every range in the supplied table. Each rule contains the required endpoints and its associated background color, ensuring that zero, the bounded positive intervals, and values greater than the highest threshold are all formatted consistently. Microsoft describes this rules-based approach to conditional formatting in its [conditional table formatting documentation](#). The completed sequence correctly uses the Background color dialog, changes the format style to Rules, and then adds and configures the full set of value-range rules.

QUESTION NO: 35

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:

No is correct. Implicit conversion addresses situations in which Power Query or the source system automatically coerces a value from one data type to another, such as text to a number or date. It does not provide a reliable mechanism for resolving values that are undefined or error-producing because of case-sensitive source data. In DirectQuery mode, queries are executed against the underlying source, so source behavior—including its handling of text comparison, case sensitivity, and invalid values—remains significant. A robust resolution requires an explicit data-cleaning or source-side approach that standardizes the relevant text values or otherwise handles the errors according to the source and model requirements. Relying on implicit conversion can also produce inconsistent results and can prevent query folding when transformations are not supported by the data source. Microsoft recommends explicitly defining data types in Power Query rather than relying on automatically inferred or implicit types, because explicit typing makes transformations predictable. For DirectQuery, transformations should be designed with the source's capabilities in mind so that the generated queries can be evaluated correctly by the source. See [Power Query data types](#) and [About DirectQuery in Power BI](#).

QUESTION NO: 36

You have a prospective customer list that contains 1,500 rows of data. The list contains the following fields:

First name

Last name

Email address

State/Region

Phone number

You import the list into Power Query Editor.

You need to ensure that the list contains records for each State/Region to which you want to target a marketing campaign.

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

NOTE: Each correct selection is worth one point.

A. Open the Advanced Editor.

B. Select Column quality.

C. Enable Column profiling based on entire dataset.

D. Select Column distribution.

E. Select Column profile.

ANSWER: C E

Explanation:

Use **Select Column profile**. to display detailed profiling information for the State/Region column. The Column profile view provides a value distribution section that lists the distinct values found in the selected column and shows their counts and percentages. This lets the analyst inspect the State/Region values represented in the prospective customer list and confirm that the intended campaign regions have records.

Also use **Enable Column profiling based on entire dataset**. Power Query data profiling is based on the first 1,000 rows by default. Because the imported list has 1,500 rows, a State/Region value that occurs only after row 1,000 could be omitted from the initial profiling results. Changing the profiling scope to the entire dataset ensures the profile evaluates all 1,500 records, making the region-presence check complete and reliable.

Microsoft documents that the Column profile view includes detailed statistics and value distribution for the selected column, and that profiling can be switched from the first 1,000 rows to the entire dataset through the status bar. See [Data profiling tools in Power Query](#) and [Column profile](#).

QUESTION NO: 37 - (DRAG DROP)

You are building a dataset from a JSON file that contains an array of documents.

You need to import attributes as columns from all the documents in the JSON file. The solution must ensure that date attributes can be used as date hierarchies in Microsoft Power BI 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.

Actions

Expand the columns.

Expand the records.

Add columns that use data type conversions.

Set the data types.

Convert the list to a table.

Answer Area

⬅️

➡️

⬆️

⬆️

ANSWER:

Actions

Expand the columns.

Expand the records.

Add columns that use data type conversions.

Set the data types.

Convert the list to a table.

Answer Area

Convert the list to a table.

Expand the columns.

Set the data types.

⬆️

⬆️

Explanation:

A JSON file that contains an array of documents is initially interpreted by Power Query as a *list*. A list is not yet arranged in the row-and-column structure needed for a reporting dataset, so the first step is to convert the list to a table. This produces a table in which each item from the JSON array is represented by a row, while the document content remains contained in a structured column.

Next, expand the columns. The values in the generated table column are document records, and expanding that column extracts the individual attributes from every document into their own columns. This is what turns attributes such as identifiers,

names, statuses, and dates into usable fields across all rows in the dataset. Power Query's record-column expansion behavior is documented in [Table.ExpandRecordColumn](#).

Finally, set the data types. JSON date values are commonly imported as text or another generic type, and Power BI needs a field to have the Date or Date/Time data type before it can apply date-aware behavior. Assigning the proper type ensures that the model identifies the attribute as a date, supports chronological sorting and time intelligence where applicable, and permits Power BI to create and use the automatic date hierarchy in report visuals when that feature is enabled. Microsoft's guidance on assigning column types in Power Query is available in [Data types in Power Query](#), and information about automatic date/time behavior is available in [Auto date/time in Power BI Desktop](#).

QUESTION NO: 38

ion have a Power BI dataset that contains a table named Temperature Readings. Temperature Readings contains the columns shown in the following table.

Name	Data type	Value example
DateTime	DateTime	4-Aug-2020 13:30:01
Longitude	Decimal	10.049567988755534
Latitude	Decimal	53.462766759577057
TempCelsius	Decimal	12.5

The table has 12 million rows. All the columns are needed for analysis.

You need to optimize the dataset to decrease the model size. The solution must not affect the precision of the data.

What should you do?

- A. Split the DateTime column into separate date and time columns.
- B. Disable the Power Query load.
- C. Round the Longitude column two decimal places.
- D. Change the data type of the TempCelsius column to Integer

ANSWER: A

Explanation:

Split the DateTime column into separate date and time columns. In an Import-mode Power BI semantic model, VertiPaq compression is strongly affected by a column's cardinality, meaning the number of distinct values it contains. A DateTime column that records many individual readings can have a very high number of unique values across 12 million rows. Separating it into a date column and a time column can allow the engine to encode and compress each component more efficiently, because dates repeat across many readings and times may also repeat at a regular sampling interval. This transformation retains the full original timestamp information: the original DateTime value can be reconstructed exactly from the separate date and time values, so it does not reduce precision. It also keeps both analytical components available, allowing reporting by date, time of day, or the combined timestamp. Microsoft's model-design guidance recommends reducing column cardinality where possible because it improves data compression and can reduce model size. See [Data reduction techniques for Import modeling](#) and [Understand star schema and the importance for Power BI](#).

QUESTION NO: 39

You need to create the On-Time Shipping report.

The report must include a visualization that shows the percentage of late orders. Which type of visualization should you create?

- A. scatterplot
- B. bar chart

ANSWER: C**Explanation:**

A pie chart is appropriate because the percentage of late orders is a part-to-whole metric. The visual can divide all orders into mutually exclusive status categories, such as Late and On Time, and display the Late slice as its share of the total order count. This lets report consumers see the proportion of orders that missed the expected shipping date immediately, while retaining the context of the complete order population. In Power BI, pie charts are designed to show how a total is distributed among categories, and the data labels or tooltips can show the percentage represented by each slice. For this report, use an order-status field as the legend and a count of unique order identifiers as the value. Ensure that the late-status logic is consistently defined, for example by comparing actual shipment or delivery dates with the promised date, before assigning each order to a status category. Microsoft's guidance describes pie charts as a suitable visual for displaying proportions of a whole, particularly when the number of categories is small. See [Pie charts in Power BI](#) and [Visualization types in Power BI](#).

QUESTION NO: 40

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.

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

ANSWER: A D**Explanation:**

A Country dimension should contain one row for each country and only the attribute or attributes that describe the country at the intended grain. **Remove duplicates from the Country column.** ensures that repeated country values in the source are consolidated so that each country is represented only once. In Power Query, removing duplicates based on a selected column retains a single row for each distinct value in that column.

Delete the City column. removes a lower-grain geographic attribute that does not belong in a dimension intended solely to list countries. Cities have a many-to-one relationship with countries; retaining City while building a Country-only dimension

can leave city-level values associated with the retained country rows. Removing City produces a clean, single-column Country dimension that can be related to fact data using the country attribute or a subsequently created key.

This approach follows dimensional-modeling principles: dimension tables should have a clearly defined grain, and a Country dimension's grain is one row per country. Power Query provides the Remove Duplicates transformation for establishing distinct records as part of preparing dimension data. See [Work with duplicates in Power Query](#) and [Understand star schema and the importance for Power BI](#).

QUESTION NO: 41

You publish a Microsoft Power BI dataset to powerbi.com. The dataset appends data from an on-premises Oracle database and an Azure SQL database by using one query.

You have admin access to the workspace and permission to use an existing On-premises data gateway for which the Oracle data source is already configured.

You need to ensure that the data is updated every morning. The solution must minimize configuration effort.

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

NOTE: Each correct selection is worth one point.

- A. Configure the dataset to use the existing On-premises data gateway.
- B. Deploy an On-premises data gateway in personal mode.
- C. Set the refresh frequency to Daily.
- D. Configure the dataset to use the personal gateway.

ANSWER: A C

Explanation:

Configure the dataset to use the existing On-premises data gateway because Power BI requires an on-premises data gateway to refresh a semantic model that accesses the on-premises Oracle source. The gateway already has the required Oracle data source configured, and the user has permission to use it, so mapping the semantic model to that gateway avoids deploying and configuring another gateway. The same semantic model can also access the Azure SQL Database source during refresh; Azure SQL Database is a cloud source and does not itself require an on-premises gateway, while the Oracle portion does.

Set the refresh frequency to Daily to meet the requirement that data be updated every morning. In the semantic model's scheduled-refresh settings, a daily schedule allows a refresh time to be selected for the desired morning update. The Power BI service then initiates the refresh on that schedule and uses the configured gateway connection to retrieve the on-premises Oracle data before completing the combined query refresh. This configuration uses the available shared gateway and the standard scheduled-refresh capability, minimizing administrative setup. For details, see [Configure scheduled refresh](#) and [What is an on-premises data gateway?](#).

QUESTION NO: 42

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

The Population table contains two columns named Population Amount and Date Key.

DateKey contains date values that represent the first day of a year and are used to create a many-to

The Power BI model contains two measures that have the following definitions.

Total Population = Sum (' Population ' [Population Amount])

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:

one row per year that contains the same value repeated for each year is correct. The intended 2023 Population measure uses CALCULATE to evaluate Total Population with a filter requiring Date[Year] to equal 2023. In a table visual, each displayed year normally supplies its own filter context. However, a standard Boolean filter argument in CALCULATE replaces an existing filter on the same column unless KEEPFILTERS is used. Therefore, for every year row in the visual, the measure replaces that row's Date[Year] filter with Date[Year] = 2023. The measure consequently evaluates the same population total for 2023 on every row, while the Year field still determines which year labels are displayed. This behavior follows DAX filter-context modification rules for CALCULATE. See [CALCULATE function \(DAX\)](#) and [KEEPFILTERS function \(DAX\)](#).

QUESTION NO: 43

Which two types of visualizations can be used in the balance sheet reports to meet the reporting goals? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. a line chart that shows balances by quarter filtered to account categories that are long-term liabilities.
- B. a clustered column chart that shows balances by date (x-axis) and account category (legend) without filters.
- C. a clustered column chart that shows balances by quarter filtered to account categories that are long-term liabilities.
- D. a pie chart that shows balances by account category without filters.
- E. a ribbon chart that shows balances by quarter and accounts in the legend.

ANSWER: A E

Explanation:

A line chart that shows balances by quarter filtered to account categories that are long-term liabilities is appropriate for monitoring the time-based movement of the specific balance-sheet category of interest. Line charts are designed to show trends across a continuous or ordered time axis, so quarter is a natural axis for identifying whether long-term-liability balances are rising, falling, or remaining stable. Applying the account-category filter keeps the visual focused on the required subset rather than mixing it with unrelated balance-sheet categories.

A ribbon chart that shows balances by quarter and accounts in the legend is also appropriate when the reporting goal includes comparing how accounts rank or change relative to one another over time. Power BI ribbon charts show the category values across time and emphasize changes in rank through the movement of ribbons. Using quarter as the time dimension and accounts as the series enables viewers to see both the account balances and shifts in their relative positions during the reporting period. This provides a complementary analytical view to a focused trend chart. Microsoft describes appropriate visual selection and the available Power BI visual types at [Visualizations in Power BI reports](#) and documents ribbon-chart behavior at [Ribbon charts in Power BI](#).

QUESTION NO: 44

You need to create relationships to meet the reporting requirements of the customer service department.

What should you create?

- A.** an additional date table named ShipDate, 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 ShipDate[date_id]
- B.** 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]
- C.** 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]
- D.** 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]
- E.** 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 Sales[sales_ship_date_id]
- F.** 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_ship_date_id]

ANSWER: F

Explanation:

Create 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_ship_date_id]. This design uses role-playing date dimensions: the Date table represents the sales-date role, while the ShipDate table represents the shipment-date role. Each date table contains one unique row per date and therefore belongs on the one side of its relationship; Sales contains multiple transactions for a given date and belongs on the many side. Using separate date tables lets both relationships remain active at the same time. Consequently, a report can use fields such as month from Date to independently filter sales dates and month from ShipDate to independently filter ship dates in the same visual. This is the recommended dimensional-modeling approach when a fact table has multiple date columns that users must slice independently. Microsoft documents that role-playing dimensions can be duplicated so that each copy has an active relationship to the relevant fact-table date column. See [Microsoft guidance on role-playing dimensions](#) and [Understand Power BI model relationships](#).

QUESTION NO: 45

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: A C

Explanation:

Apply group by and summarize techniques. is correct because aggregation in Power Query can reduce the number of detail-level records that must be stored in the semantic model. When reports do not require transaction-level or other granular data, grouping records by the business dimensions needed for analysis and calculating summaries such as sums, counts, averages, minimums, or maximums produces a smaller imported table. Reducing row cardinality can lower model memory consumption and make refresh and query operations more efficient. Power Query supports this through its Group By transformation; see [Group rows in Power Query](#).

Remove unnecessary columns and rows. is correct because only data required for report visuals, measures, relationships, filtering, and other defined business requirements should be loaded. Removing unused columns decreases the number of fields and values retained in the model, while filtering out irrelevant rows decreases the volume of imported data. These transformations should generally be applied as early as practical in the query process, particularly when query folding can pass filters and column selection to the source system. Microsoft recommends reducing the data loaded into a model by removing unnecessary columns and rows as part of performance optimization. For guidance, see [Data reduction techniques for Import modeling](#).

QUESTION NO: 46

You have a Power BI app named App1. The privacy for the App1 workspace is set to Private.

A user named User1 reports that App1 does not appear in the My organization AppSource. App1 appears in the My organization AppSource for your account.

You need to ensure that User sees App1 from the My organization AppSource.

What should you do?

- A. From the app workspace, click Update app, configure the Content settings, and then click Update app.
- B. From the app workspace settings, add a member.
- C. From the app workspace, click Update app, configure the Access setting, and then click Update app.
- D. From the app workspace, share the dashboard.

ANSWER: C

Explanation:

From the app workspace, click Update app, configure the Access setting, and then click Update app. Power BI apps are distributed independently of workspace membership. When an app is published or updated, its Access settings define the users, groups, or audiences that are allowed to discover and install it. A user who is not included in an app audience or otherwise granted app access will not see that app in the organization's app catalog, even when the app is visible to its owner or publisher. Updating the app's access configuration and adding User1 directly, or preferably through an appropriate Microsoft Entra security group, grants User1 entitlement to the published app. After the app is updated, User1 can find it under organizational apps and install it. The workspace's Private setting controls access to the workspace itself; it does not by itself provide User1 access to the app. Power BI supports defining multiple app audiences so publishers can manage access to different sets of app content while keeping workspace administration separate from app consumption. For more information, see [Create and distribute Power BI apps](#) and [Manage app audiences](#).

QUESTION NO: 47

You need to minimize the size of the semantic model. The solution must meet the report requirements.

What should you do?

- A. Filter out discontinued products while importing the Products table.
- B. Group the Categories table by the CategoryID column.
- C. Change the OrderID column in the Orders table to the Text data type.

D. Remove the QuantityPerUnit column from the Products table.

ANSWER: D

Explanation:

Removing the QuantityPerUnit column from the Products table minimizes the semantic model because it eliminates an unneeded column from the model entirely. Every imported column consumes storage and can contribute to refresh processing, so limiting imported data to only the fields required by reports, relationships, calculations, and filtering is a core Power BI model-design practice. If QuantityPerUnit is not needed to meet the stated reporting requirements, removing it at the query level means Power BI does not load or store its values in the semantic model. This reduces the model footprint without altering the product attributes, measures, or relationships that the reports require. Microsoft recommends removing unnecessary columns during Power Query data preparation, ideally as early as possible, because this reduces the amount of data loaded into the model. It also aligns with guidance to optimize import models by loading only the data needed for reporting. See [Reduce the size of import models](#) and [Power Query best practices](#).

QUESTION NO: 48

You plan to embed multiple visualization in a public website.

Your Power BI infrastructure contains the visualizations configured as shown in the following table.

Visualization name	Characteristic
Visual1	Uses row-level security (RLS)
Visual2	Uses a dataset that is stored in Microsoft OneDrive for Business
Visual3	Contained in a report that was shared to your user account
Visual4	Is a custom visual
Visual5	Uses a dataset from an on-premises Microsoft SQL Server Analysis Services (SSAS) database

Which two visualizations can you embed into the website? Each correct answer presents a complete the solution.

NOTE: Each correct selection is worth one point.

- A. Visual1
- B. Visual2
- C. Visual3
- D. Visual4
- E. Visual5

ANSWER: B D

Explanation:

Visual2 and **Visual4** can be embedded because their configurations satisfy the requirements for Power BI *Publish to web*. Publish to web creates a publicly accessible URL or iframe that can be placed on a public site. Anyone on the internet who

obtains the link can view the published content without signing in to Power BI, so this approach is appropriate only for information intended to be public.

The applicable content must be eligible for public publishing. In particular, Publish to web is used to embed supported report content or an individual visual in a public website, rather than to provide authenticated, permission-controlled access. The selected visualizations are the ones shown with compatible source-content and security configurations for this publishing method. Once published, report changes are automatically reflected in the embedded content, although viewers may need to refresh their browser to see updates.

Before using this feature, the organization should verify its tenant setting. A Power BI administrator can allow or restrict creation of Publish to web embed codes, and organizations should review public embed codes periodically. Microsoft recommends avoiding Publish to web for confidential, personal, proprietary, or otherwise restricted data. See [Publish to web from Power BI](#) and [Power BI admin portal settings](#).

QUESTION NO: 49

You have a Power BI report

You have a table named Dalai that contains 10 million rows. Data 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. Apply a row filter to the Dalai query in Power Query Editor.
- B. Add a trend line to the scatter plot
- C. Enable high-density sampling on the scatter plot
- D. Add a count field of the transaction amount to the size bucket of the scatter plot

ANSWER: C

Explanation:

Enable high-density sampling on the scatter plot. A scatter chart based on 10 million rows can contain many overlapping or densely clustered points, which can obscure the distribution and make meaningful relationships between transaction amount, profit amount, and territory difficult to see. High-density sampling is a scatter-chart-specific rendering feature designed for this scenario. It selects a representative set of points for display while preserving the visual shape, density, and outliers of the data distribution as effectively as possible. This makes clusters, trends, and unusual observations easier for report consumers to recognize without attempting to render every individual point.

Importantly, high-density sampling changes only how the scatter visual displays its points; it does not filter rows from the model, modify the underlying Dalai table, or change DAX calculations. Therefore, the card can continue to show the accurate record count and the bar chart can continue to show accurate transaction totals by territory. Microsoft documents high-density sampling specifically as a Power BI scatter-chart capability for displaying large volumes of data: [High-density sampling in scatter charts](#). For related guidance on improving report performance while retaining an appropriate analytical experience, see [Power BI optimization guidance](#).

QUESTION NO: 50

You need to create relationships to meet the reporting requirements of the customer service department.

What should you create?

- A.** 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_ship_date_id]
- B.** 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]
- C.** 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]
- D.** 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]
- E.** 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 Sales[sales_ship_date_id]

ANSWER: A

Explanation:

The correct design is to create a separate role-playing date dimension named ShipDate, with one-to-many relationships from Date[date_id] to Sales[sales_date_id] and from ShipDate[date_id] to Sales[sales_ship_date_id]. Sales is a fact table, so it can contain many rows for each individual calendar date, while each date dimension contains one unique row per date. Therefore, the date tables belong on the one side of each relationship and Sales belongs on the many side.

Using two date dimensions lets the model maintain two active, independent filter paths to the Sales table: one for the sales date and one for the ship date. A report visual can then use month attributes from Date and ShipDate independently, allowing users to filter or group sales by sales month and ship month at the same time. This role-playing dimension pattern is the recommended approach when a fact table has multiple date columns that must be used simultaneously in report filtering and slicing. Microsoft documents that active relationships propagate filters and that duplicate dimension tables can support separate roles in a model. See [Understand model relationships in Power BI Desktop](#) and [Active vs. inactive relationship guidance](#).

QUESTION NO: 51

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.** Remove the TransactionID column
- C.** Remove the PostDate column
- D.** Change the data type of the PostDate column to Date

ANSWER: A C

Explanation:

Changing the data type of the TransactionDate column to Date preserves the portion of the value that users actually analyze while eliminating the time component. In an imported Power BI model, reducing unnecessary detail can reduce column cardinality—the number of distinct values that the VertiPaq engine must store and compress. A Date column with repeated calendar dates is generally more efficient than a Date/Time column containing many distinct timestamps, while still supporting date-based grouping, filtering, and relationships.

Removing the PostDate column further minimizes the model because it is redundant once TransactionDate has been converted to Date. The retained TransactionDate column supplies the same date-level analytical value, so keeping both date-only representations would consume model storage without adding analytical capability. Power BI modeling guidance recommends removing columns that are not needed for reporting and avoiding redundant columns, because every imported column contributes to model size and refresh overhead. This approach retains the required date analysis while reducing the amount of data loaded into the semantic model. See [Reduce data loaded into Power BI semantic models](#) and [Understand star schema and the importance for Power BI](#).

QUESTION NO: 52 - (SIMULATION)

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: See the explanation for the answer

Explanation:

Select the following answers:

The date column is currently typed as Any (the ABC 123 icon). Set it to the Date type before applying a Date/Day transformation. The menu amount field is being interpreted using an incorrect type, as indicated by date-like values and an error; set the column to the appropriate numeric/amount data type.

QUESTION NO: 53

You have a Power BI report that contains a page. The page contains the following:

â€¢ A shape named Shape 1

â€¢ A card named Sales Summary

â€¢ A clustered bar chart named Sales by Region

You need to ensure that Sales Summary renders on top of Shape 1. 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:

Layer order in the Selection pane is the setting that controls which report-page object is displayed in front when visuals overlap. In Power BI Desktop, the Selection pane lists all visuals and other page objects, including shapes. Its layer ordering determines the rendering stack: an item positioned above another item is rendered in front of it. To place the Sales Summary card over Shape 1, open the Selection pane and move Sales Summary above Shape 1, or select the card and use the Bring forward or Bring to front command. This changes the visual stacking order without changing the card's data, formatting, size, or position. The Selection pane is specifically intended to manage both object visibility and overlapping-object order, which is useful when shapes are used as backgrounds, borders, or design elements behind visuals. Microsoft documents arranging report objects and changing their layering through the Selection pane in [Use the Selection pane in Power BI Desktop](#). For additional guidance on positioning and arranging visuals on a report canvas, see [Power BI report design documentation](#).