

Microsoft

DA-100 Exam

Analyzing Data with Microsoft Power BI

Version : 7.0
[Total Questions : 114]

Case Study: 1

Litware, Inc.

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Overview

Litware, Inc. is an online retailer that uses Microsoft Power BI dashboards and reports.

The company plans to leverage data from Microsoft SQL Server databases, Microsoft Excel files, text files, and several other data sources.

Litware uses Azure Active Directory (Azure AD) to authenticate users.

Existing Environment

Sales Data

Litware has online sales data that has the SQL schema shown in the following table.

Table name	Column name	Data type
Sales_Region	region_id	Integer
	name	Varchar
Region_Manager	region_id	Integer
	manager_id	Integer
Sales_Manager	sales_manager_id	Integer
	name	Varchar
	username	Varchar
Sales	sales_id	Integer
	sales_date_id	Integer
	sales_amount	Floating
	customer_id	Integer
	sales_ship_date_id	Integer
	region_id	Varchar
Customer_Date	customer_id	Integer
	first_name	Varchar
	last_name	Varchar
Date	date_id	Integer
	date	Date
	month	Integer
	week	Integer
	year	Integer
Weekly_Returns	week_id	Integer
	total_returns	Floating
	sales_region_id	Varchar
Targets	target_id	Integer
	sales_target	Decimal
	date_id	Integer
	region_id	Integer

In the Date table, the dateid column has a format of yyyyymmdd and the month column has a format of yyymm. The week column in the Date table and the weekid column in the Weekly_Returns table have a format of yyyyww. The regionid column can be managed by only one sales manager.

Data Concerns

You are concerned with the quality and completeness of the sales data. You plan to verify the sales data for negative sales amounts.

Reporting Requirements

Litware identifies the following technical requirements:

- * Executives require a visual that shows sales by region.
- * Regional managers require a visual to analyze weekly sales and returns.
- * Sales managers must be able to see the sales data of their respective region only.
- * The sales managers require a visual to analyze sales performance versus sales targets.
- * The sale department requires reports that contain the number of sales transactions.

- * Users must be able to see the month in reports as shown in the following example: Feb 2020.
- * The customer service department requires a visual that can be filtered by both sales month and ship month independently.

Question: 1

You need to address the data concerns before creating the data model. What should you do in Power Query Editor?

- A. Select Column distribution.
 - B. Select the sales_amount column and apply a number filter.
 - C. Select Column profile, and then select the sales_amount column.
 - D. Transform the sales_amount column to replace negative values with 0.
-

Answer: D

Explanation:

Scenario: Data Concerns

You are concerned with the quality and completeness of the sales data. You plan to verify the sales data for negative sales amounts.

How to convert negative numbers into positive numb, editor and right click, select transform, and choose absolute value. That would give the positive number outcome you're looking for.

<https://www.xspdf.com/resolution/50510644.html>

Question: 2

You need to create a calculated column to display the month based on the reporting requirements. Which DAX expression should you use?

- A . FORMAT('Date'[date], 'MMM YYYY')
 - B . FORMAT('Date' [date], 'M YY')
 - C . FORMAT('Date'[date_id], 'MMM') & " " & FORMAT('Date'[year], '#')
 - D . FORMAT('Date' [date_id], 'MMM YYYY')
-

Answer: D

Explanation:

Scenario: In the Date table, the date_id column has a format of yyyyymmdd. Users must be able to see the month in reports as shown in the following example: Feb 2020.

Question: 3

You need to create the required relationship for the executive's visual. What should you do before you can create the relationship?

- A . Change the data type of Sales[region_id] to Whole Number.
- B . In the Sales table, add a measure for sum(sales_amount).
- C . Change the data type of sales[sales_id] to Text.
- D . Change the data type of sales [region_id] to Decimal Number.

Answer: C

Question: 4

What should you create to meet the reporting requirements of the sales department?

- A . a calculated column that uses a formula of count(Sales[sales_id])
- B . a calculated measure that uses a formula of countROWS(Sales)
- C . a calculated column that uses a formula of sum(Sales[sales_id])
- D . a measure that uses a formula of sum(Sales[sales_id])

Answer: B

Question: 5

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:

Scenario: Region managers require a visual to analyze weekly sales and returns.

To relate the two tables we need a common column.

Question: 6

You need to create a visualization to meet the reporting requirements of the sales managers.

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

NOTE: Each correct selection is worth one point.

Visualization type: Card
 Donut chart
 Gauge
 Key influencers
 KPI

Indicator: Date[month]
 Sales[sales_amount]
 Sales[sales_id]
 Targets[sales_target]
 Weekly_Returns[total_returns]

Trend axis: Date[month]
 Sales[sales_amount]
 Sales[sales_id]
 Targets[sales_target]
 Weekly_Returns[total_returns]

Target goals: Date[month]
 Sales[sales_amount]
 Sales[sales_id]
 Targets[sales_target]
 Weekly_Returns[total_returns]

These are the selections for Indicator

Answer:

Visualization type: Card
Donut chart
Gauge
Key influencers
KPI

Indicator: Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Trend axis: Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

Target goals: Date[month]
Sales[sales_amount]
Sales[sales_id]
Targets[sales_target]
Weekly_Returns[total_returns]

These are the selections for Indicator

Explanation:

Scenario: The sales managers require a visual to analyze sales performance versus sales targets.

Box 1: KPI

A Key Performance Indicator (KPI) is a visual cue that communicates the amount of progress made toward a measurable goal.

Box 2: Sales[sales_amount]

Box 3: Date[month]

Time > FiscalMonth. This value will represent the trend.

Box 4: Targets[sales_target]

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-kpi>

Question: 7

You need to provide a solution to provide the sales managers with the required access.

What should you include in the solution?

- A . Create a security role that has a table filter on the Sales_Manager table where username = UserName()
 - B . Create a security role that has a table filter on the Region_Manager table where sales_manager_id = UserPrincipalName().
 - C . Create a security role that has a table filter on the Sales_Manager table where name = UserName().
 - D . Create a security role that has a table filter on the Sales_Manager table where username = sales_manager_id.
-

Answer: B

Explanation:

Scenario: The region_id column can be managed by only one sales manager.

You can use Username() or userprincipalname() in DAX with Row-Level Security.

Within Power BI Desktop, username() will return a user in the format of DOMAIN\User and userprincipalname() will return a user in the format of user@contoso.com.

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

Question: 8

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]

Answer: E

Explanation:

Scenario: The customer service department requires a visual that can be filtered by both sales month and ship month independently.

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

Case Study: 2

Contoso Ltd, Case Study

Overview

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Existing Environment

Contoso, Ltd. is a manufacturing company that produces outdoor equipment. Contoso has quarterly board meetings for which financial analysts manually prepare Microsoft Excel reports, including profit and loss statements for each of the company's four business units, a company balance sheet, and net income projections for the next quarter.

Data and Sources

Data for the reports comes from three sources. Detailed revenue, cost and expense data comes from an Azure SQL database. Summary balance sheet data comes from Microsoft Dynamics 365 Business Central. The balance sheet data is not related to the profit and loss results, other than they both relate to dates.

Monthly revenue and expense projections for the next quarter come from a Microsoft SharePoint Online list. Quarterly projections relate to the profit and loss results by using the following shared dimensions: date, business unit, department, and product category.

Net Income Projection Data

Net income projection data is stored in a SharePoint Online list named Projections in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

Revenue projections are set at the monthly level and summed to show projections for the quarter.

Balance Sheet Data

The balance sheet data is imported with final balances for each account per month in the format shown in the following table.

AccountCategory	Account	Month	Year	BalanceAmount
Current assets	Cash and cash equivalents	3	2020	20,289
Current assets	Inventories	3	2020	4,855
Long-term liabilities	Long-term debt	3	2020	50,207
Current assets	Cash and cash equivalents	2	2020	28,209
Current assets	Inventories	2	2020	5,845
Long-term liabilities	Long-term debt	2	2020	49,887
Current assets	Cash and cash equivalents	1	2020	25,567
Current assets	Inventories	1	2020	65,998
Long-term liabilities	Long-term debt	1	2020	46,124

There is always a row for each account for each month in the balance sheet data.

Dynamics 365 Business Central Data

Business Central contains a product catalog that shows how products roll up to product categories, which roll up to business units. Revenue data is provided at the date and product level. Expense data is provided at the date and department level.

Business Issues

Historically, it has taken two analysts a week to prepare the reports for the quarterly board meetings. Also, there is usually at least one issue each quarter where a value in a report is wrong because of a bad cell reference in an Excel formula. On occasion, there are conflicting results in the reports because the products and departments that roll up to each business unit are not defined consistently.

Planned Changes

Contoso plans to automate and standardize the quarterly reporting process by using Microsoft Power BI. The company wants to how long it takes to populate reports to less than two days. The company wants to create common logic for business units, products, and departments to be used across all reports, including, but not limited, to the quarterly reporting for the board.

Technical Requirements

Contoso wants the reports and datasets refreshed with minimal manual effort

The company wants to provide a single package of reports to the board that contains custom navigation and links to supplementary information.

Maintenance, including manually updating data and access, must be minimized as much as possible.

Security Requirements

The reports must be made available to the board from powerbi.com. A mail-enabled security group will be used to share information with the board.

The analysts responsible for each business unit must see all the data the board sees, except the profit and loss data, which must be restricted to only their business unit's data. The analysts must be able to build new reports from the dataset that contains the profit and loss data, but any reports that the analysts build must not be included in the quarterly reports for the board. The analysts must not be able to share the quarterly reports with anyone.

Report Requirements

You plan to relate the balance sheet to a standard date table in Power BI in a many-to-one relationship based on the last day of the month. At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

Projections must contain a column named RevenueProjection that contains the revenue projection amounts. A relationship must be created from Projections to a table named Date that contains the columns shown in the following table.

Name	Data type	Example
Date	Date	4-Apr-2020
Month	Integer	20,2004
Month Name	Text	February
Quarter	Integer	20,202
Year	Integer	2,020

The relationships between products and departments to business units must be consistent across all reports.

The board must be able to get the following information from the quarterly reports:

- * Revenue trends over time
- * Ending balances for each account
- * A comparison of expenses versus projections by quarter
- * Changes in long-term liabilities from the previous quarter
- * A comparison of quarterly revenue versus the same quarter during the prior year

Question: 1

You build a report about warehouse inventory dat

- a. The dataset has more than 10 million product records from 200 warehouses worldwide. You have a table named Products that contains the columns shown in the following table.

Name	Sample data
ProductDescription	Bikes > Adventure Works > Mountain Bikes > Super Carbon Bike > 26in wheels 42in frame
ProductCategory	Bikes
Manufacturer	Adventure Works
ProductSubcategory	Mountain Bikes
ProductSpecification	26in wheels 42in frame

Warehouse managers report that it is difficult to use the report because the report uses only the product name in tables and visuals. The product name is contained within the ProductDescription column and is always the fourth value.

You need to modify the report to support the warehouse managers requirement to explore inventory levels at different levels of the product hierarchy. The solution must minimize the model size.

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

Create a product hierarchy of Manufacturer, ProductSpecifications, ProductName, ProductSubcategory, and ProductCategory.

Replace the use of ProductDescription in the report with the product hierarchy.

Transform the ProductDescription column to contain only the text between the first and fourth > symbol.

Add the product hierarchy as an extra field in visuals where ProductDescription is used.

Add a column named ProductName that contains only the text between the third and fourth > symbol in the ProductDescription column.

Add a column named ProductName that contains all the text after the third > symbol in the ProductDescription column.

Create a product hierarchy of ProductCategory, ProductSubcategory, Manufacturer, ProductName, and ProductSpecifications.

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

Create a product hierarchy of Manufacturer, ProductSpecifications, ProductName, ProductSubcategory, and ProductCategory.

Replace the use of ProductDescription in the report with the product hierarchy.

Transform the ProductDescription column to contain only the text between the first and fourth > symbol.

Add the product hierarchy as an extra field in visuals where ProductDescription is used.

Add a column named ProductName that contains only the text between the third and fourth > symbol in the ProductDescription column.

Add a column named ProductName that contains all the text after the third > symbol in the ProductDescription column.

Create a product hierarchy of ProductCategory, ProductSubcategory, Manufacturer, ProductName, and ProductSpecifications.

Answer Area

Add a column named ProductName that contains only the text between the third and fourth > symbol in the ProductDescription column.

Create a product hierarchy of ProductCategory, ProductSubcategory, Manufacturer, ProductName, and ProductSpecifications.

Replace the use of ProductDescription in the report with the product hierarchy.

**Question: 2**

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

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

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

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

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

What should you recommend?

- A . Split the visuals onto multiple pages.
- B . Implement row-level security (RLS).
- C . Replace the default visuals with custom visuals.
- D . Increase the number of times that the dataset is refreshed.

Answer: A

Question: 3

You are configuring a Microsoft Power BI data model to enable users to ask natural language questions by using Q&

A . You have a table named Customer that has the following measure.

Customer Count = DISTINCTCOUNT(Customer[CustomerID])

Users frequently refer to customers as subscribers.

You need to ensure that the users can get a useful result for 'subscriber count' by using Q&A. The solution must minimize the size of the model.

What should you do?

A . Add a description of 'subscriber count' to the Customer Count measure.

B . Set Summarize By to None for the CustomerID column.

C . Add a description of 'Subscriber' to the Customer table.

D . Add a synonym of 'subscriber' to the Customer table.

Answer: D

Explanation:

You can add synonyms to tables and columns.

Note: This step applies specifically to Q&A (and not to Power BI reports in general). Users often have a variety of terms they use to refer to the same thing, such as total sales, net sales, total net sales. You can add these synonyms to tables and columns in the Power BI model.

This step applies specifically to Q&A (and not to Power BI reports in general). Users often have a variety of terms they use to refer to the same thing, such as total sales, net sales, total net sales. You can add these synonyms to tables and columns in the Power BI model.

<https://docs.microsoft.com/en-us/power-bi/natural-language/q-and-a-best-practices>

Question: 4

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

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

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

The related dimension tables are imported into the model.

Sales contains the data shown in the following table.

Answer Area

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

Answer:

Answer Area

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

Question: 5

You have a sales system that contains the tables shown in the following table.

Table name	Column name
Sales	sales_ID
	sales_date
	sales_amount
Date	DatelD
	Month
	Week
	Year

The Date table is marked as a date table.

DatelD is the date data type. You need to create an annual sales growth percentage measure.

Which DAX expression should you use?

- A . SUM(sales[sales_amount]) - CALCULATE(SUM(sales[sales_amount]),
SAMEPERIODLASTYEAR('Date'[DatelD]))
- B . CALCULATE(SUM(sales[sales_amount]), DATESYTD('Date'[DatelD]))

- C . (SUM(sales[sales_araount]) - CALCULATE(SUM(sales[sales_amount])),
 SAMEPERIOOLASTYEAR('Date'[DateID]))/ CALCULATE(SUM(sales[sales_amount])), SAMEPERIOOLASTYEAR
 ('Date'[DateID])
- D . CALCULATE(SUH(sales[sales_araount]), SAMEPERIODLASTYEAR('Date'[DateID]))

Answer: D 

Question: 6

You are creating a Microsoft Power BI model that has two tables named CityData and Sales. CityData contains only the data shown in the following table.

State (CityData)	City	Population (million)
CA	Los Angeles	4.00
CA	San Francisco	0.90
New York	New York	8.50
WA	Seattle	0.70
WA	Spokane	0.20

Sales contains only the data shown in the following table.

State (Sales)	Type	Sales
CA	Internet	60
CA	Store	80
TX	Store	400
WA	Internet	150
WA	Store	100

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
In the Sales table, you can write a DAX expression that uses the RELATED() function to get data from the CityData table.	<input type="radio"/>	<input type="radio"/>
A DAX expression of sales_total =CALCULATE(SUM(sales[sales]),ALL(sales)) will produce the correct total sales value for each state, based on the data model.	<input type="radio"/>	<input type="radio"/>
A table visualization that uses cityData[State] and sales[sales] will contain sales from the state of TX.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
In the Sales table, you can write a DAX expression that uses the RELATED() function to get data from the CityData table.	<input checked="" type="radio"/>	<input type="radio"/>
A DAX expression of sales_total =CALCULATE(SUM(Sales[Sales]),ALL(Sales)) will produce the correct total sales value for each state, based on the data model.	<input checked="" type="radio"/>	<input type="radio"/>
A table visualization that uses cityData[State] and sales[Sales] will contain sales from the state of TX.	<input type="radio"/>	<input checked="" type="radio"/>

Question: 7

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

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

There is a relationship between the tables.

There are no reporting requirements on employeeid and employee_photo.

You need to optimize the data model

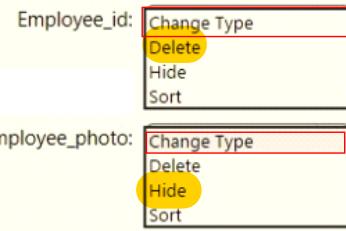
What should you configure for employeeid and employee.photo? To answer, select the appropriate options in the answer area.

Answer Area

Employee_id:	<input type="checkbox"/> Change Type <input type="checkbox"/> Delete <input type="checkbox"/> Hide <input type="checkbox"/> Sort
Employee_photo:	<input type="checkbox"/> Change Type <input type="checkbox"/> Delete <input type="checkbox"/> Hide <input type="checkbox"/> Sort

Answer:

Answer Area



Question: 8

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

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

You import the tables.

Which relationship should you use to link the tables?

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

Answer: A

Explanation:

Each customer can have many transactions.

For each transaction there is exactly one customer.

Question: 9

You have four sales regions. Each region has multiple sales managers.

You implement row-level security (RLS) in a data model. You assign the relevant distribution lists to each role.

You have sales reports that enable analysis by region. The sales managers can view the sales records of their region. The sales managers are prevented from viewing records from other regions.

A sales manager changes to a different region.

You need to ensure that the sales manager can see the correct sales data.

What should you do?

- A . From Microsoft Power BI Desktop, edit the Row-Level Security setting for the reports.
- B . Change the Microsoft Power BI license type of the sales manager.
- C . Manage the permissions of the underlying dataset
- D . Request that the sales manager be added to the correct Azure Active Directory group.

Answer: D

Explanation:

Using AD Security Groups, you no longer need to maintain a long list of users.

All that you will need to do is to put in the AD Security group with the required permissions and Power BI will do the REST! This means a small and simple security file with the permissions and AD Security group.

Note: Configure role mappings

Once published to Power BI, you must map members to dataset roles.

Members can be user accounts or security groups. Whenever possible, we recommend you map security groups to dataset roles. It involves managing security group memberships in Azure Active Directory. Possibly, it delegates the task to your network administrators.

<https://www.fourmoo.com/2018/02/20/dynamic-row-level-security-is-easy-with-active-directory-security-groups/>

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

Question: 10

You have a Microsoft Power BI workspace.

You need to grant the user capabilities shown in the following table.

User name	Task
User1	Create and publish apps.
User2	Publish reports to the workspace and delete dashboards.

The solution must use the principle of least privilege.

Which user role should you assign to each user? To answer, drag the appropriate roles to the correct users. Each role may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Roles

Admin Contributor Member Viewer

Answer Area

User1: Role

User2: Role

 Role' and 'User2: Role'." data-bbox="41 319 812 392"/>

User 1 = Member

User 2 = Contributor

Answer:

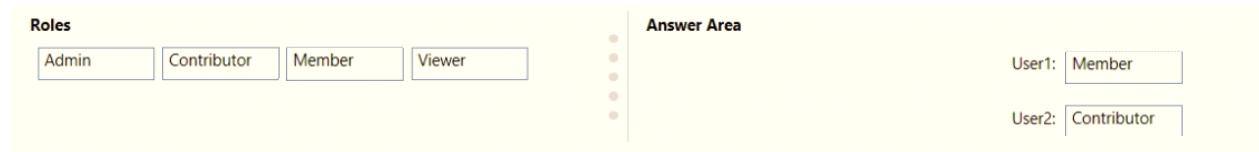
Roles

Admin Contributor Member Viewer

Answer Area

User1: Member

User2: Contributor



Question: 11

You are creating a visual to show the ranking of product categories by sales revenue.

Your company's security policy states that you cannot send data outside of your Microsoft Power BI tenant.

Which approach provides the widest variety of visuals while adhering to the security policy?

- A . Use default visuals or custom visuals uploaded from a .pbviz file.
- B . Use only default visuals.
- C . Use default or any custom visuals from the marketplace.
- D . Use default or certified custom visuals.

Answer: C

Question: 12

You have five sales regions. Each region is assigned a single salesperson.

You have an imported dataset that has a dynamic row-level security (RLS) role named Sales. The Sales role filters sales transaction data by salesperson.

Salespeople must see only the data from their region.

You publish the dataset to powerbi.com, set RLS role membership, and distribute the dataset and related reports to the salespeople.

A salesperson reports that she believes she should see more data.

You need to verify what data the salesperson currently sees.

What should you do?

- A . Use the Test as role option to view data as the salesperson's user account.
- B . Use the Test as role option to view data as the Sales role.
- C . Instruct the salesperson to open the report in Microsoft Power BI Desktop.
- D . Filter the data in the reports to match the intended logic in the filter on the sales transaction table.

Answer: B

Question: 13

You have a collection of reports for the HR department of your company. The datasets use row-level security (RLS). The company has multiple sales regions that each has an HR manager. You need to ensure that the HR managers can interact with the data from their region only. The HR managers must be prevented from changing the layout of the reports. How should you provision access to the reports for the HR managers?

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

Answer: B

Explanation:

Note: Row-level security (RLS) with Power BI can be used to restrict data access for given users. Filters restrict data access at the row level, and you can define filters within roles. In the Power BI service, members of a workspace have access to datasets in the workspace. RLS doesn't restrict this data access.

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

Question: 14

Your company plans to completely separate development and production assets such as datasets, reports, and dashboards in Microsoft Power BI.

You need to recommend an application lifecycle strategy. The solution must minimize maintenance to update access and prevent end users from viewing the development assets.

What should you recommend?

- A . Create production reports in a separate workspace that uses a shared dataset from the development workspace. Grant the end users access to the production workspace.
- B . In the same workspace, create separate copies of the assets and append DEV to the names of the copied assets. Grant the end users access to the workspace.
- C . Create separate workspaces for development and production. Grant the end users access to the production workspace.
- D . Create one workspace for development. From the workspace, publish an app for production.

Answer: C

Question: 15

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

Orders Summary

[View By City](#)

[View By State](#)

Sales USD by Store Location



[Ask your data a question](#)

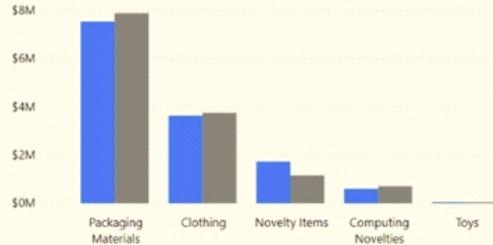
[Get Power BI help](#)

[Edit](#) [Delete](#)

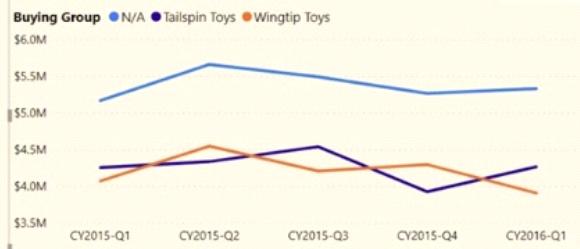
[Edit](#) [Delete](#) [More](#)

Sales USD for Q1 2016 and Prior Year

Total Before Tax Same Quarter Last Year



Quarterly Sales USD by Buying Group



Top 10 Sales Associates

Employee	Total Before Tax	Order Count
Amy Trefl	\$17,329,344	7,276
Anthony Grosse	\$17,300,382	7,257
Archer Lamble	\$18,551,147	7,532
Hudson Hollinworth	\$17,716,354	7,400
Hudson Onslow	\$17,815,605	7,281
Jack Potter	\$17,621,145	7,387
Kayla Woodcock	\$18,107,095	7,474
Lily Code	\$17,612,640	7,268
Sophia Hinton	\$17,768,199	7,349
Taj Shand	\$17,812,365	7,371
Total	\$177,634,276	73,595

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

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

cross-filter
 cross-highlight
 not affect

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

cross-filter
 cross-highlight
 not affect

Answer:

Answer Area

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



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



Explanation:

Box 1: cross-filter

By default, selecting a data point in one visual on a report page will cross-filter or cross-highlight the other visuals on the page.

Box 2: cross-highlight

Example:

By default, selecting a data point in one visual on a report page will cross-filter or cross-highlight the other visuals on the page.

1. Let's see what happens when we select Moderation.

2. Cross-filtering removes data that doesn't apply. Selecting Moderation in the doughnut chart cross-filters the line chart. The line chart now only displays data points for the Moderation segment.

3. Cross-highlighting retains all the original data points but dims the portion that does not apply to your selection. Selecting Moderation in the doughnut chart cross-highlights the column chart. The column chart dims all the data that applies to the Convenience segment and highlights all the data that applies to the Moderation segment.

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-interactions>

Question: 16

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:

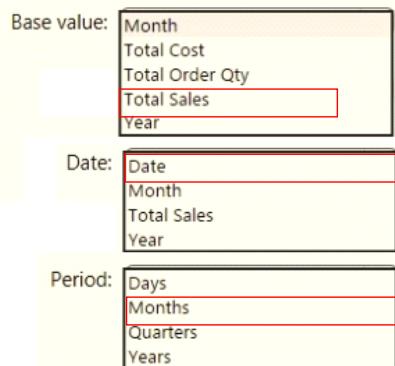
Date
Month
Total Sales
Year

Period:

Days
Months
Quarters
Years

Answer:

Answer Area



Explanation:

Box 1: Total Sales

We select the field Total Sales

Box 2: Date

Select a date field.

Box 3: Month

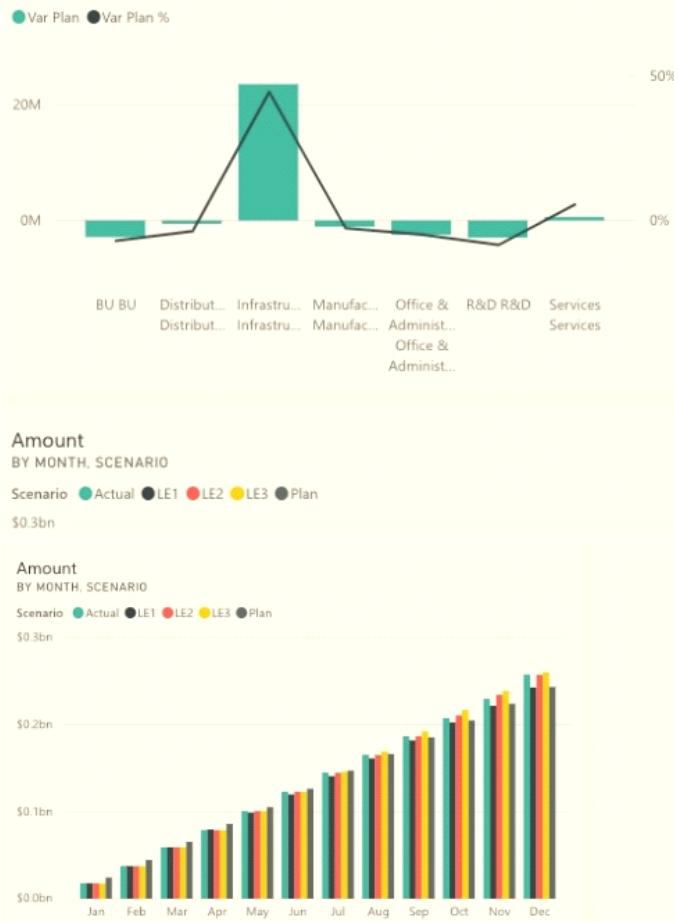
Monthly periods.

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

Question: 17

You have a Microsoft Power BI dashboard. The report used to create the dashboard uses an imported dataset from a Microsoft SQL Server data source. The dashboard is shown in the exhibit. (Click the Exhibit tab.)

Variance to Plan, Variance to Plan %
BY BUSINESS AREA • REFRESHED: 12:03:06 PM



What occurred at 12:03:06 PM?

- A . A user pressed F5
- B . A new transaction was added to the data source.
- C . A user added a comment to a tile.
- D . The dashboard tile cache refreshed.

Answer: D

Question: 18

You have a report that contains four pages. Each page contains slicers for the same four fields. Users report that when they select values on a slicer on one page, the visuals are not updated on all the pages. You need to recommend a solution to ensure that users can select a value once to filter the results on all the pages. What are **two** possible recommendations to achieve this goal? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

- A . Sync the slicers across the pages.

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

Answer: A, E

Explanation:

Add a report-level filter to filter an entire report.

The visuals on the active page, and on all pages in the report, change to reflect the new filter.

You can sync a slicer and use it on any or all pages in a report.

1. On the Power BI Desktop View menu, select Sync slicers.

The Sync slicers pane appears between the Filters and Visualizations panes.

<https://docs.microsoft.com/en-us/power-bi/create-reports/power-bi-report-add-filter>

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-slicers>

Question: 19

You are developing a report page. Some users will navigate the report by using a keyboard, and some users will consume the report by using a screen reader. You need to ensure that the users can consume the content on a report page in a logical order. What should you configure in Microsoft Power BI Desktop?

- A . the bookmark order
- B . the layer order
- C . the tab order
- D . the X position

Answer: C

Explanation:

If you find yourself unable to navigate to an object or visual while using a keyboard, it may be because the report author has decided to hide that object from the tab order. Report authors commonly hide decorative objects from the tab order. If you find that you cannot tab through a report in a logical manner, you should contact the report author. Report authors can set the tab order for objects and visuals.

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-accessibility-consuming-tools>

Question: 20

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:

You can subscribe yourself and your colleagues to the report pages, dashboards, and paginated reports that matter most to you. Power BI e-mail subscriptions allow you to:

Decide how often you want to receive the emails: daily, weekly, hourly, monthly, or once a day after the initial data refresh.

Choose the time you want to receive the email, if you choose daily, weekly, hourly, or monthly.

Note: Email subscriptions don't support most custom visuals. The one exception is those custom visuals that have been certified.

Email subscriptions don't support R-powered custom visuals at this time.

Incorrect Answers:

A: Set data alerts to notify you when data in your dashboards changes beyond limits you set.

<https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-report-subscribe>

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-set-data-alerts>

Question: 21

You have multiple dashboards.

You need to ensure that when users browse the available dashboards from powerbi.com. they can see which dashboards contain Personally Identifiable Information (PII). The solution must minimize configuration effort and impact on the dashboard design.

What should you use?

- A . Active Directory groups
- B . tiles
- C . data classifications
- D . comments

Answer: A

Question: 22

You publish a report to a workspace named Customer Services. The report identifies customers that have potential data quality issues that must be investigated by the customer services department of your company.

You need to ensure that customer service managers can create task lists in Microsoft Excel based on the data.

Which report setting should you configure?

- A . Don't allow end user to save filters on this report.
- B . Change default visual interaction from cross highlighting to cross filtering.
- C . Enable the updated filter pane, and show filters in the visual header for this report.
- D . Allow users to add comments to this report.
- E . Choose the type of data you allow your end users to export.

<https://powerbi.microsoft.com/en-us/blog/announcing-persistent-filters-in-the-service/>

Answer: E

Question: 23

You have a data model that contains many complex DAX expressions. The expressions contain frequent references to the RELATED and RELATEDTABLE functions.

You need to recommend a solution to minimize the use of the RELATED and RELATEDTABLE functions.

What should you recommend?

- A . Merge tables by using Power Query.
- B . Hide unused columns in the model.
- C . Split the model into multiple models.
- D . Transpose.

Answer: A

Explanation:

Combining data means connecting to two or more data sources, shaping them as needed, then consolidating them into a useful query.

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

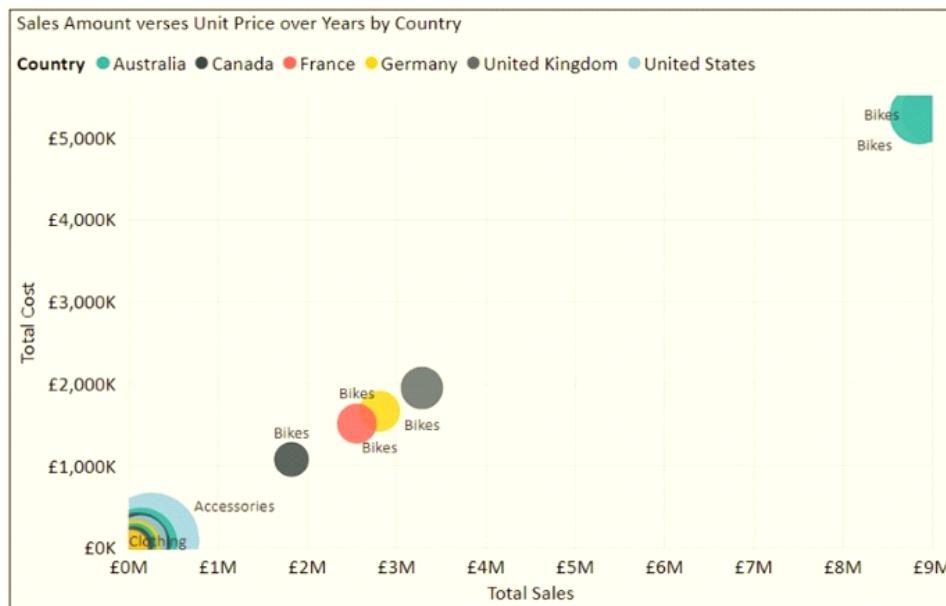
Note: The RELATEDTABLE function is a shortcut for CALCULATETABLE function with no logical expression.

CALCULATETABLE evaluates a table expression in a modified filter context and returns A table of values.

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

Question: 24

You have the visual shown in the exhibit. (Click the Exhibit tab.)



You need to show the relationship between Total Cost and Total Sales over time.

What should you do?

- A . Add a play axis.
- B . Add a slicer for the year.
- C . From the Analytics pane, add an Average line.
- D . Create a DAX measure that calculates year-over-year growth.

Question: 25

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

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

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

The solution must use the existing calculations only.

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

NOTE: Each correct selection is worth one point.

Answer Area

Conditional formatting:

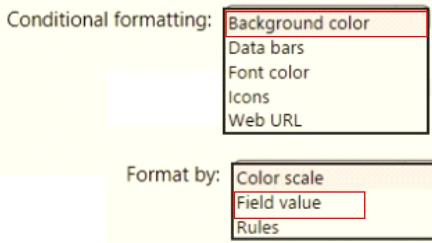
- Background color
- Data bars
- Font color
- Icons
- Web URL

Format by:

- Color scale
- Field value
- Rules

Answer:

Answer Area



Explanation:

Box 1: Background color

To format the Color column based on its field values, select Conditional formatting for the Color field, and then select Background color or Font color.

In the Background color or Font color dialog box, select Field value from the Format by drop-down field.

Box 2: Field value

With conditional formatting for tables in Power BI Desktop, you can specify customized cell colors, including color gradients, based on field values.

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-conditional-table-formatting>

Question: 26

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

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

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

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

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

Does this meet the goal?

A . Yes

B . No

Answer: A

Question: 27

You need to create a DAX measure in the data model that only allows users to see projections at the appropriate levels of granularity.

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

NOTE: Each correct selection is worth one point.

Values	Answer Area
AND	Total Projected Revenue = Value (
IF	NOT (Value ('Date'[Date])),
ISFILTERED	Value (Projection[Revenue Projection])
KEEPFILTERS)
SUM	
SUMX	

The screenshot shows a user interface for creating a DAX measure. On the left, there is a vertical list of DAX functions: AND, IF, ISFILTERED, KEEPFILTERS, SUM, and SUMX. On the right, there is a pane labeled "Answer Area" containing a partially completed DAX formula. The formula starts with "Total Projected Revenue =". It includes a placeholder "Value" followed by a parenthesis. Below this, there is a "NOT" operator followed by another placeholder "Value" with a parenthesis and the text "'Date'[Date]". After a comma, there is another placeholder "Value" followed by a parenthesis and the text "Projection[Revenue Projection]". Finally, there is a closing parenthesis. The entire pane has a light yellow background.

Answer:

Values	Answer Area
AND	Total Projected Revenue =
IF	IF
ISFILTERED	NOT (ISFILTERED ('Date'[Date])),
KEEPFILTERS	SUM (Projection[Revenue Projection])
SUM)
SUMX	

Explanation:

Scenario: Revenue projections are set at the monthly level and summed to show projections for the quarter.

Box 1: IF

Box 2: ISFILTERED

ISFILTERED returns TRUE when columnName is being filtered directly. If there is no filter on the column or if the filtering happens because a different column in the same table or in a related table is being filtered then the function returns FALSE.

Box 3: SUM

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

Question: 28

You need to calculate the last day of the month in the balance sheet data to ensure that you can relate the balance sheet data to the Date table. Which type of calculation and which formula should you use? To answer, select the appropriate options in the answer area

a. NOTE: Each correct selection is worth one point.

Answer Area

Type of calculation:	<input type="checkbox"/> A DAX calculated column <input type="checkbox"/> A DAX calculated measure <input type="checkbox"/> An M custom column
Formula:	Date.EndOfMonth(#date([Year], [Month], 1)) Date.EndOfQuarter(#date([Year], [Month], 1)) ENDOFQUARTER(DATE('BalanceSheet'[Year], BalanceSheet[Month], 1), 0)

Answer:

Answer Area

Type of calculation:	<input checked="" type="checkbox"/> A DAX calculated column <input checked="" type="checkbox"/> A DAX calculated measure <input type="checkbox"/> An M custom column
Formula:	Date.EndOfMonth(#date([Year], [Month], 1)) Date.EndOfQuarter(#date([Year], [Month], 1)) ENDOFQUARTER(DATE('BalanceSheet'[Year], BalanceSheet[Month], 1), 0)

Explanation:

Box 1: A DAX Calculated measure

Box 2: Date.EndofQuarter(#date([Year],[Mont],1))

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

The following sample formula creates a measure that returns the end of the quarter, for the current context.

= ENDOFQUARTER(DateTime[DateKey])

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

Question: 29

You need to grant access to the business unit analysts.

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

NOTE: Each correct selection is worth one point.

Answer Area

Permissions required in powerbi.com:	<input type="checkbox"/> Access permissions to an app <input type="checkbox"/> The Member role to the workspace <input checked="" type="checkbox"/> The Viewer role to the workspace
Permissions for the profit and loss dataset:	<input type="checkbox"/> Build <input type="checkbox"/> Delete <input checked="" type="checkbox"/> Reshare

Answer:

Answer Area

Permissions required in powerbi.com:

Access permissions to an app
The Member role to the workspace
The Viewer role to the workspace

Permissions for the profit and loss dataset:

Build
Delete
Reshare

Explanation:

Box 1: The Viewer role to the workspace

The Viewer role gives a read-only experience to its users. They can view dashboards, reports, or workbooks in the workspace, but can't browse the datasets or dataflows. Use the Viewer role wherever you would previously use a classic workspace set to "Members can only view Power BI content".

Box 2: Build

The analysts must be able to build new reports from the dataset that contains the profit and loss data.

Scenario: The reports must be made available to the board from powerbi.com.

The analysts responsible for each business unit must see all the data the board sees, except the profit and loss data, which must be restricted to only their business unit's data.

a. The analysts must be able to build new reports from the dataset that contains the profit and loss data, but any reports that the analysts build must not be included in the quarterly reports for the board. The analysts must not be able to share the quarterly reports with anyone.

<https://www.nickyvv.com/2019/08/the-new-power-bi-workspace-viewer-role-explained.html>

Question: 30

You need to recommend a strategy to consistently define the business unit, department, and product category data and make the data usable across reports.

What should you recommend?

- A . Create a shared dataset for each standardized entity.
- B . Create dataflows for the standardized data and make the dataflows available for use in all imported datasets.

- C . For every report, create and use a single shared dataset that contains the standardized data.
D . For the three entities, create exports of the data from the Power BI model to Excel and store the data in Microsoft OneDrive for others to use as a source.

Answer: B

Question: 31

Once the profit and loss dataset is created, which four actions should you perform in sequence to ensure that the business unit analysts see the appropriate profit and loss data? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
From powerbi.com, assign the analysts the Contributor role to the workspace.	
From powerbi.com, add role members to the roles.	
From Power BI Desktop, add a Table Filter DAX Expression to the roles.	>
From Power BI Desktop, create four roles.	<
From Power BI Desktop, publish the dataset to powerbi.com.	

Answer:

Actions	Answer Area
From powerbi.com, assign the analysts the Contributor role to the workspace.	
From powerbi.com, add role members to the roles.	
From Power BI Desktop, add a Table Filter DAX Expression to the roles.	>
From Power BI Desktop, create four roles.	
From Power BI Desktop, publish the dataset to powerbi.com.	<
From Power BI Desktop, publish the dataset to powerbi.com.	
From Power BI Desktop, create four roles.	
From Power BI Desktop, add a Table Filter DAX Expression to the roles.	
From powerbi.com, add role members to the roles.	

Question: 32

What is the minimum number of datasets and storage modes required to support the reports?

- A . two imported datasets
B . a single DirectQuery dataset
C . two DirectQuery datasets
D . a single imported dataset

Answer: A

Explanation:

Scenario: Data and Sources

Data for the reports comes from three sources. Detailed revenue, cost, and expense data comes from an Azure SQL database. Summary balance sheet data comes from Microsoft Dynamics 365 Business Central. The balance sheet data is not related to the profit and loss results, other than they both relate dates.

Monthly revenue and expense projections for the next quarter come from a Microsoft SharePoint Online list. Quarterly projections relate to the profit and loss results by using the following shared dimensions: date, business unit, department, and product category.

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-understand>

Question: 33

Which DAX expression should you use to get the ending balances in the balance sheet reports?

- A . CALCULATE (
SUM(BalanceSheet [BalanceAmount]),
DATESQTD('Date'[Date])
)
- B . CALCULATE (
SUM(BalanceSheet [BalanceAmount]),
LASTDATE('Date'[Date])
)
- C . FIRSTNONBLANK ('Date' [Date]
SUM(BalanceSheet[BalanceAmount])
)
- D . CALCULATE (
MAX(BalanceSheet[BalanceAmount]),
LASTDATE('Date' [Date])
)

Scenario: At least one of the balance sheet reports in the quarterly reporting package must show the ending balances for the quarter, as well as for the previous quarter.

DATESQTD returns a table that contains a column of the dates for the quarter to date, in the current context.

Answer: A

Explanation:

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

Question: 34

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, C

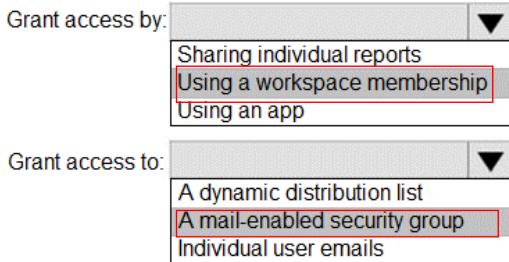
Question: 35

How should you distribute the reports to the board? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Grant access by:	<input type="checkbox"/> Sharing individual reports	<input checked="" type="checkbox"/> Using a workspace membership	<input type="checkbox"/> Using an app
Grant access to:	<input type="checkbox"/> A dynamic distribution list	<input checked="" type="checkbox"/> A mail-enabled security group	<input type="checkbox"/> Individual user emails

Answer:



Explanation:

Box 1: Using a workspace membership

Scenario:

The company wants to provide a single package of reports to the board that contains custom navigation and links to supplementary information.

Note: Workspace is a shared environment for a group of people. You can have multiple Power BI content in a workspace. One workspace can have hundreds of dashboards, reports, and datasets in it.

Box 2: A mail-enabled security group

Scenario: Security Requirements

The reports must be made available to the board from powerbi.com. A mail-enabled security group will be used to share information with the board.

Topic 3, Misc. Questions

Question: 36

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

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

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

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

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

Does this meet the goal?

- A . Yes
- B . No

Answer: B

Question: 37

You build a report to help the sales team understand its performance and the **drivers** of sales. The team needs to have a single visualization to identify which factors affect success. Which type of visualization should you use?

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

Answer: A

Explanation:

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

The key influencers visual is a great choice if you want to:

See which factors affect the metric being analyzed.

Contrast the relative importance of these factors. For example, do short-term contracts have more impact on churn than long-term contracts?

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Question: 38

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

Question: 39

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 create a parameter named DataSourceExcel that holds the file name and location of a Microsoft Excel data source.

You need to update the query to reference the parameter instead of multiple hard-coded copies of the location within each query definition.

Solution: You add a Power Apps custom visual to the report.

Does this meet the goal?

- A . Yes
- B . No

Answer: A

Question: 40

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 create a parameter named DataSourceExcel that holds the file name and location of a Microsoft Excel data source.

You need to update the query to reference the parameter instead of multiple hard-coded copies of the location within each query definition.

Solution: In the Power Query M code, you replace references to the Excel file with DataSourceExcel.

Does this meet the goal?

- A . Yes
- B . No

Answer: B

Explanation:

Instead modify the source step of the queries to use DataSourceExcel as the file path.

Note: Parameterising a Data Source could be used in many different use cases. From connecting to different data sources defined in Query Parameters to load different combinations of columns.

<https://www.biinsight.com/power-bi-desktop-query-parameters-part-1/>

Question: 41

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 create a parameter named DataSourceExcel that holds the file name and location of a Microsoft Excel data source.

You need to update the query to reference the parameter instead of multiple hard-coded copies of the location within each query definition.

Solution: You create a new query that references DataSourceExcel.

Does this meet the goal?

- A . Yes
- B . No

Answer: B

Explanation:

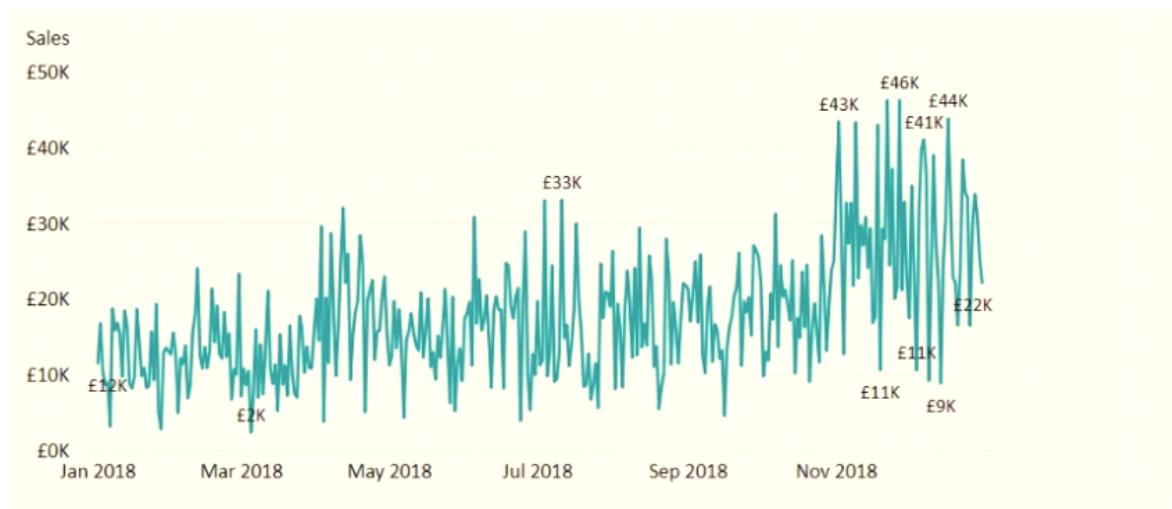
Instead modify the source step of the queries to use DataSourceExcel as the file path.

Note: Parameterising a Data Source could be used in many different use cases. From connecting to different data sources defined in Query Parameters to load different combinations of columns.

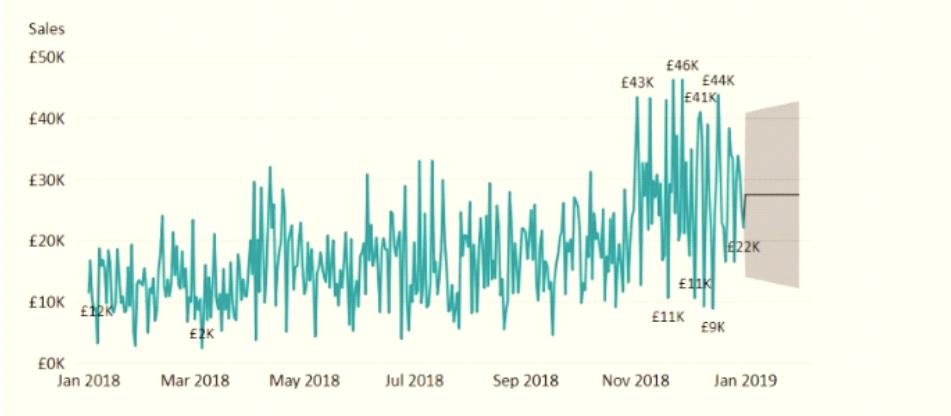
<https://www.biinsight.com/power-bi-desktop-query-parameters-part-1/>

Question: 42

You have the visual shown in the Original exhibit. {Click the Original tab.)



You need to configure the visual as shown in the Modified exhibit. (Click the Modified tab.)



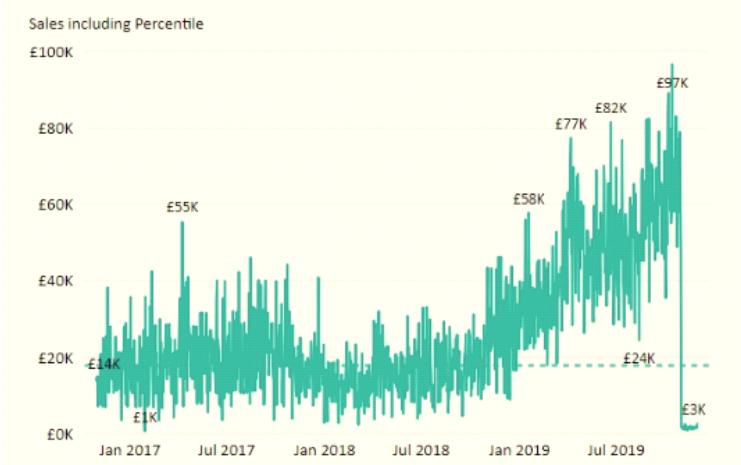
What should you add to the visual?

- A . a measure
- B . a trendline
- C . a forecast
- D . an Average line

Answer: C

Question: 43

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



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

- A . Create a horizontal line that has a fixed value of 24,000.
- B . Add a measure to the visual that uses the following DAX expression.
Measure = PERCENTILEX.EXC (Sales, Sales[Total Sales], .40)
- C . Add a new percentile line that uses Total Sales as the measure and 40% as the percentile.

D . Add a measure to the visual that uses the following DAX expression.

Measure = PERCENTILEX.INC (Sales,Sales[Total Sales],6.40)

Answer: C

Explanation:

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

Example:

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

Add percentile lines to monitor daily revenue

Question: 44

You have a table that contains sales data and approximately 1,000 rows. You need to identify outliers in the table. Which type of visualization should you use?

- A . area chart
- B . donut chart
- C . scatter plot
- D . pie chart

Answer: C

Explanation:

Outliers are those data points that lie outside the overall pattern of distribution & the easiest way to detect outliers is through graphs. Box plots, Scatter plots can help detect them easily.

<https://towardsdatascience.com>this-article-is-about-identifying-outliers-through-funnel-plots-using-the-microsoft-power-bi-d7ad16ac9ccc>

Question: 45

You have a collection of reports for the HR department of your company.

You need to create a visualization for the HR department that shows a historic employee counts and predicts trends during the next six months.

Which type of visualization should you use?

- A . scatter chart
- B . ribbon chart
- C . line chart**
- D . key influences

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Answer: D

Question: 46

You have a Microsoft Power BI dashboard.

You need to ensure that consumers of the dashboard can give you feedback that will be visible to the other consumers of the dashboard.

What should you use?

- A . Feedback
- B . Subscribe
- C . Comments
- D . Mark as favorite**

<https://docs.microsoft.com/en-us/power-bi/consumer/end-user-comment>

Answer: C

Question: 47

You are creating a column chart visualization.

You configure groups as shown in the Groups exhibit. {Click the Groups tab.}

Groups

Name	Sepal.Width (bins)	Field	Sepal.Width
Group type	Bin	Min value	2
Bin Type	Number of bins	Max value	4.4

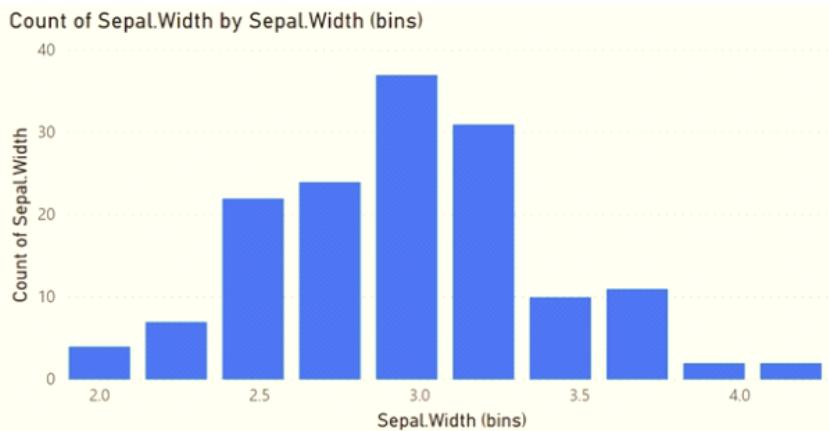
Binning splits numeric or date/time data by an amount you specify. The default bin count is calculated based on your data.

Bin count	10	Bin size	0.24000000000000005
-----------	----	----------	---------------------

Reset to default

OK **Cancel**

The visualization appears as shown in the Chart exhibit. (Click the Chart tab.)



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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
The data is segmented into 10 groups.	<input type="radio"/>	<input type="radio"/>
The data was split into deciles.	<input type="radio"/>	<input type="radio"/>
To increase the bin size, you must decrease the bin count.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

Statements	Yes	No
The data is segmented into 10 groups.	<input checked="" type="radio"/>	<input type="radio"/>
The data was split into deciles.	<input type="radio"/>	<input checked="" type="radio"/>
To increase the bin size, you must decrease the bin count.	<input checked="" type="radio"/>	<input type="radio"/>

Question: 48

You have a report that contains three pages. One of the pages contains a KPI visualization. You need to filter all the visualizations in the report except for the KPI visualization. Which **two actions** should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A . Add the same slicer to each page and configure Sync slicers.
- B . Edit the interactions of the KPI visualization.
- C . Configure a page-level filter.
- D . Edit the interactions of the slicer that is on the same page as the KPI visualization.
- E . Configure a report-level filter.

Answer: B, E

Question: 49

You create a report by using Microsoft Power BI Desktop.

The report uses data from a Microsoft SQL Server Analysis Services (SSAS) cube located on your company's internal network.

You plan to publish the report to the Power BI Service.

What should you implement to ensure that users who consume the report from the Power BI Service have the most **up-to-date data from the cube?**

- A . a subscription
- B . a scheduled refresh of the dataset
- C . an OData feed
- D . an On-premises data gateway

Answer: D

Explanation:

When you've created dynamic reports in Power BI Desktop, you can share them by publishing to your Power BI site. When you publish a Power BI Desktop file with a live connection to a tabular model to your Power BI site, an on-premises data gateway must be installed and configured by an administrator.

Question: 50

Your company plans to completely separate development and production assets such as datasets, reports, and dashboards in Microsoft Power BI.

You need to recommend an application lifecycle strategy. The solution must minimize access to production assets and prevent end users from viewing the development assets.

What should you recommend?

- A . Create production reports in a separate workspace that uses a shared dataset from the development workspace. Grant the end users access to the production workspace.
- B . Create one workspace for development. From the new workspace, publish an app for production.
- C . Create a workspace for development and a workspace for production. From the production workspace, publish an app.
- D . In one workspace, create separate copies of the assets and append DEV to the names of the copied assets. Grant the end users access to the workspace.

Answer: C

Explanation:

Use different work stages (Development, Test, and Production).

Deploy from the Development workspace.

<https://visualbi.com/blogs/microsoft/powerbi/application-lifecycle-management-power-bi/>

Question: 51

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 scenario, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have several reports and dashboards in a workspace.

You need to grant all organizational users read access to a dashboard and several reports.

Solution: You create an Azure Active Directory group that contains all the users. You share each report and dashboard to the group.

Does this meet the goal?

- A . Yes
- B . No

Answer: B

Explanation:

Instead assign all the users the Viewer role to the workspace.

Note: The Viewer role gives a read-only experience to its users. They can view dashboards, reports, or workbooks in the workspace, but can't browse the datasets or dataflows. Use the Viewer role wherever you would previously use a classic workspace set to "Members can only view Power BI content".

<https://powerbi.microsoft.com/en-us/blog/announcing-the-new-viewer-role-for-power-bi-workspaces/>

Question: 52

You have a line chart that shows the number of employees in a department over time.

You need to see the total salary costs of the employees when you **hover over** a data point.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A . Add a salary to the tooltips.
- B . Add a salary to the visual filters.
- C . Add salary to the drillthrough fields.

Answer: A, B

Explanation:

A: When a visualization is created, the default tooltip displays the data point's value and category. There are many instances when customizing the tooltip information is useful. Customizing tooltips provides additional context and information for users viewing the visual. Custom tooltips enable you to specify additional data points that display as part of the tooltip.

B: Visual Filter applies to a single visual/tile on a report page. You can only see visual level filters selected visual on the report canvas.

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-custom-tooltips>

<https://technovids.com/power-bi-filters/>

Question: 53

You have a report that contains a bar chart and a column chart. The bar chart shows customer count by customer segment. The column chart shows sales by month.

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

How should the visual interactions be set on the column chart when the bar chart is selected?

- A . no impact
- B . highlight
- C . filter

Answer: C

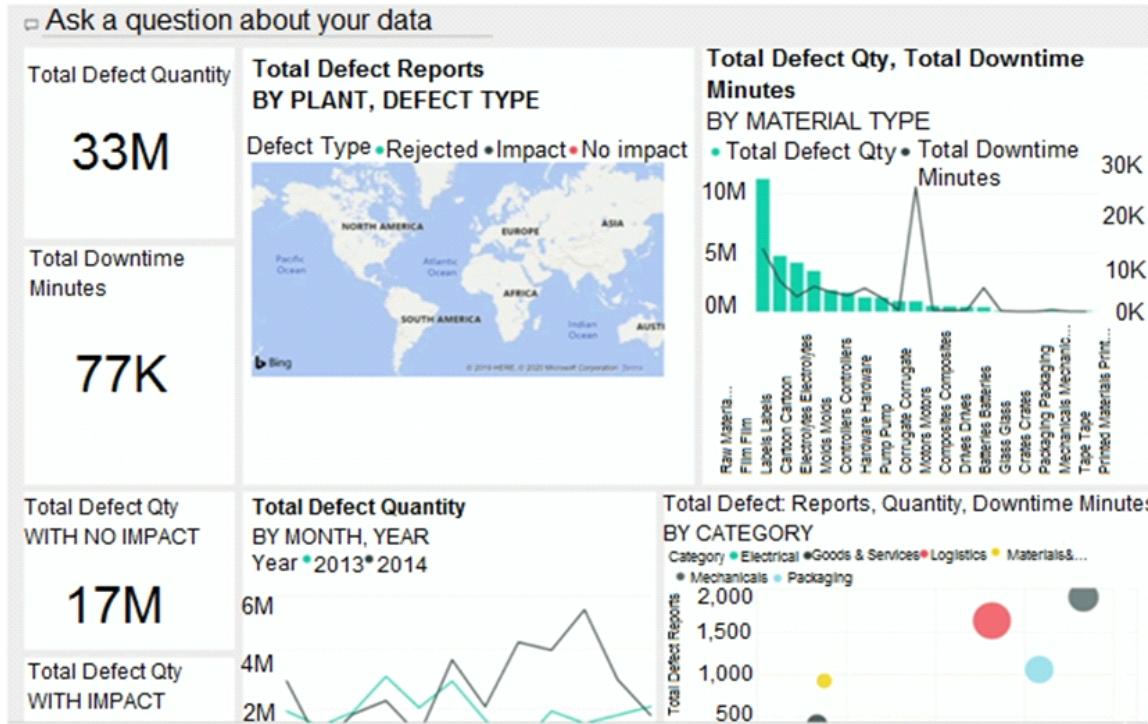
Explanation:

Filters remove all but the data you want to focus on. Highlighting isn't filtering. It doesn't remove data, but instead highlights a subset of the visible data; the data that isn't highlighted remains visible but dimmed.

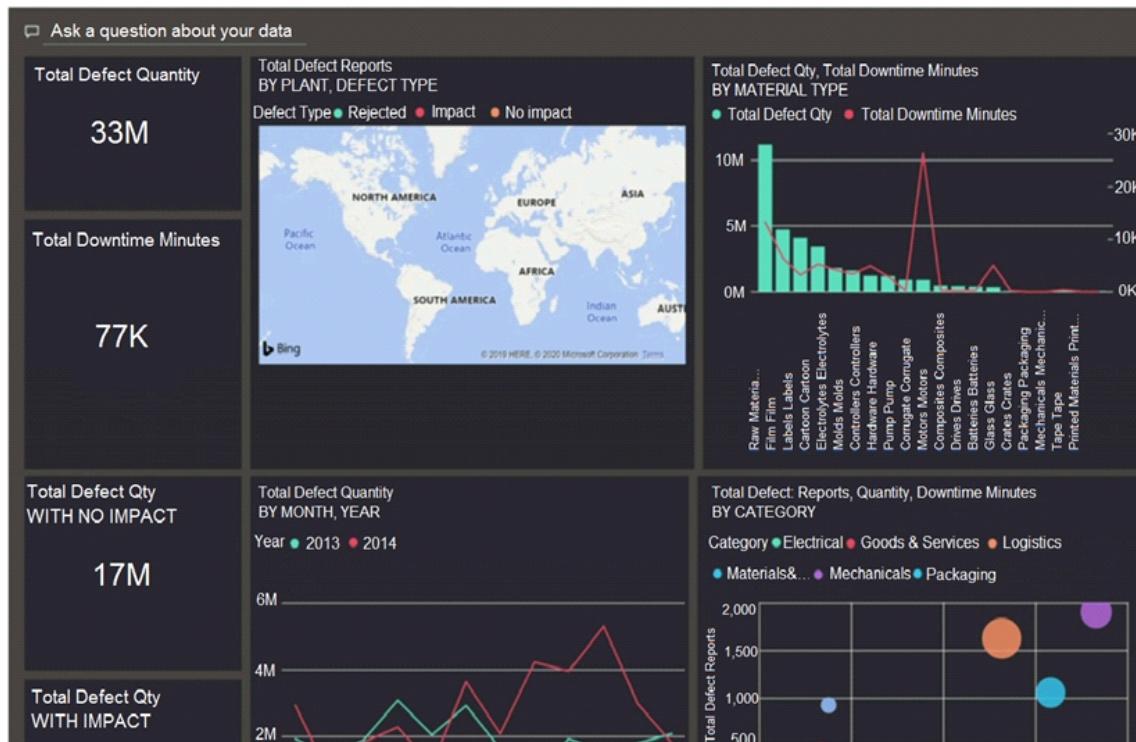
<https://docs.microsoft.com/en-us/power-bi/create-reports/service-reports-visual-interactions>

Question: 54

You have a dashboard that contains tiles pinned from a single report as shown in the Original Dashboard exhibit. (Click the Original Dashboard tab.)



You need to modify the dashboard to appear as shown in the Modified Dashboard exhibit. (Click the Modified Dashboard tab.)



What should you do?

- A . Edit the details of each tile.
- B . Change the report theme.
- C . Change the dashboard theme.
- D . Create a custom CSS file.

Answer: B

Explanation:

With Power BI Desktop report themes, you can apply design changes to your entire report, such as using corporate colors, changing icon sets, or applying new default visual formatting. When you apply a report theme, all visuals in your report use the colors and formatting from your selected theme as their defaults.

<https://docs.microsoft.com/en-us/power-bi/create-reports/desktop-report-themes>

Question: 55

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

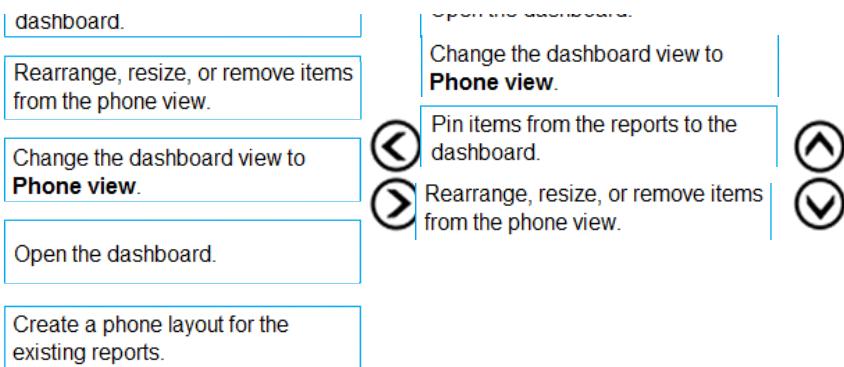
You need to build the dashboard.

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

Actions	Answer Area
Pin items from the reports to the dashboard.	
Rearrange, resize, or remove items from the phone view.	
Change the dashboard view to Phone view.	 
Open the dashboard.	
Create a phone layout for the existing reports.	

Answer:

Actions	Answer Area
Pin items from the reports to the dashboard.	Open the dashboard



Explanation:

When you view dashboards in portrait mode on a phone, you notice the dashboard tiles are laid out one after another, all the same size. In the Power BI service, you can create a customized view of a dashboard, specifically for portrait mode on phones.

Step 1: Open the Dashboard.

Step 2: Change the dashboard view to Phone view

Step 3: Pin items from the reports to the dashboard.

Step 4: Rearrange, resize, or remote items from the Phone view.

Create a phone view of a dashboard

1. In the Power BI service, open a dashboard (Step 1)

2. Select the arrow next to Web view in the upper-right corner > select Phone view. (Step 2)

The phone dashboard edit view opens. Here you can unpin, resize, and rearrange tiles to fit the phone view. The web version of the dashboard doesn't change.

3. Select a tile to drag, resize, or unpin it. You notice the other tiles move out of the way as you drag a tile.

The unpinned tiles go in the Unpinned tiles pane, where they stay unless you add them back.

4. If you change your mind, select Reset tiles to put them back in the size and order they were before.

5. When you're satisfied with the phone dashboard layout, select the arrow next to Phone view in the upper-right corner > select Web view.

Power BI saves the phone layout automatically.

<https://docs.microsoft.com/en-us/power-bi/create-reports/service-create-dashboard-mobile-phone-view>

Question: 56

You have a dataset named Pens that contains the following columns:

Unit Price

Quantity Ordered

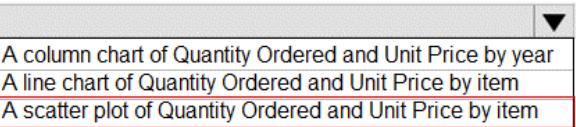
You need to create a visualization that shows the relationship between Unit Price and Quantity Ordered. The solution must highlight orders that have a similar unit price and ordered quantity.

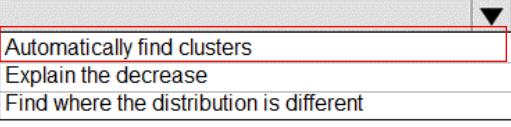
Which type of visualization and which feature should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Visualization:	<input type="checkbox"/> A column chart of Quantity Ordered and Unit Price by year <input type="checkbox"/> A line chart of Quantity Ordered and Unit Price by item <input type="checkbox"/> A scatter plot of Quantity Ordered and Unit Price by item
Feature:	<input type="checkbox"/> Automatically find clusters <input type="checkbox"/> Explain the decrease <input type="checkbox"/> Find where the distribution is different

Answer:

Visualization: 

Feature: 

Explanation:

Box 1: A scatter plot...

A scatter chart always has two value axes to show: one set of numerical data along a horizontal axis and another set of numerical values along a vertical axis. The chart displays points at the intersection of an x and y numerical value, combining these values into single data points. Power BI may distribute these data points evenly or unevenly across the horizontal axis. It depends on the data the chart represents.

Box 2: Automatically find clusters

Scatter charts are a great choice to show patterns in large sets of data, for example by showing linear or non-linear trends, clusters, and outliers.

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-scatter>

Question: 57

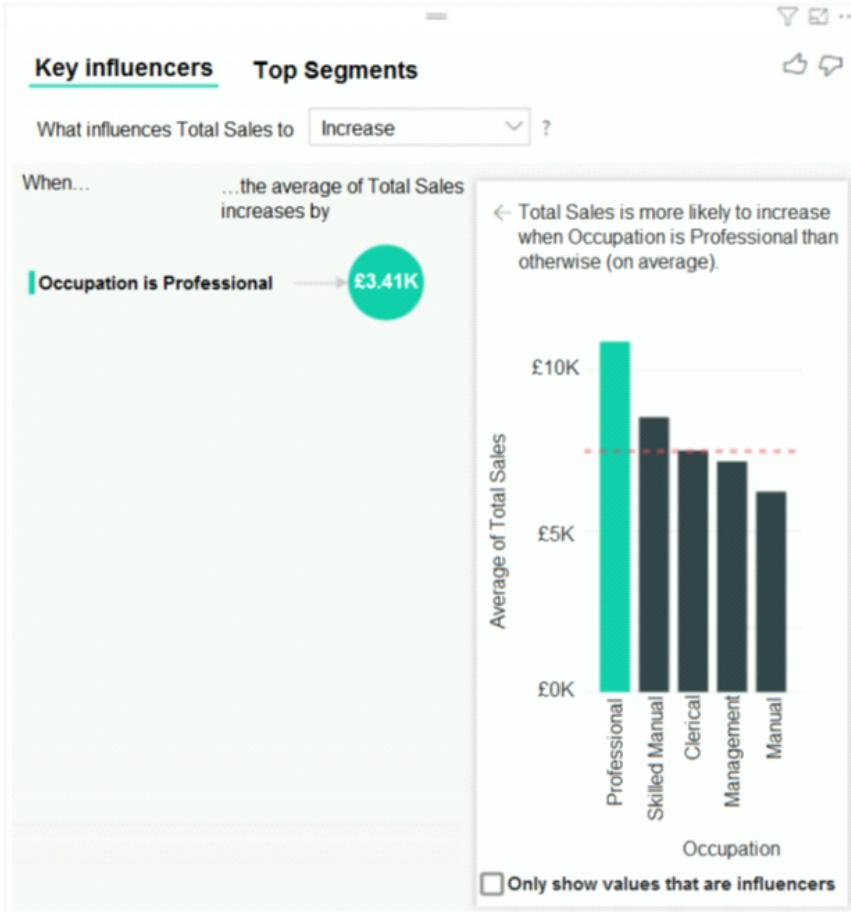
You have a table that contains the following three columns:

City

Total Sales

Occupation

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



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

NOTE: Each correct selection is worth one point.

Analyze:

City
Occupation
Total Sales

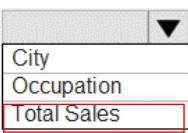
Explain by:

City
Occupation
Total Sales

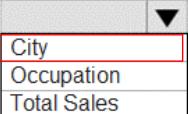
Expand by:

City
Occupation
Total Sales

Answer:

Analyze: 

Explain by: 

Expand by: 

Explanation:

Box 1: Total Sales

Box 2: Occupation

Box 3: City

You can use **Expand By** to add fields you want to use for setting the level of the analysis without looking for new influencers.

<https://docs.microsoft.com/en-us/power-bi/visuals/power-bi-visualization-influencers>

Question: 58

You have the dataset shown in the following exhibit.

A screenshot of a Microsoft Power BI table visual. The table has two columns: 'City' and 'Sales Profit'. The data rows are: 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), and Total (\$85,729,181). The 'Total' row is highlighted with a yellow background.

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.

D18912E1457D5D1DDCBD40AB3BF70D5D

Answer: A

Explanation:

Power BI Top N Filters are useful to display the top performing records, and Bottom N filters are helpful to display the least performing records. For example, we can display top or bottom 10 products by orders or sales.

Note:

Select the Column you want to display the Top Sales Profit

Then change the Filter Type of that Column to Top N

Fill in Top / Bottom number field

And lastly drag to the By Value filed your Sales Profit

<https://www.tutorialgateway.org/power-bi-top-10-filters/>

Question: 59

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 scenario, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create an average line by using the Salary measure.

Does this meet the goal?

A . Yes

B . No

Answer: B

Explanation:

Instead create a percentile line by using the Salary measure and set the percentile to 50%.

Note: The 50th percentile is also known as the median or middle value where 50 percent of observations fall below.

https://dash-intel.com/powerbi/statistical_functions_percentile.php

Question: 60

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 scenario, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

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

Does this meet the goal?

A . Yes

B . No

Answer: A

Explanation:

The 50th percentile is also known as the median or middle value where 50 percent of observations fall below.

https://dash-intel.com/powerbi/statistical_functions_percentile.php

Question: 61

DROP

You have a query named Customer that imports CSV files from a data lake. The query contains 500 rows as shown in the exhibit. (Click the Exhibit tab.)

Source.Name	Customer ID	Modified Date	Customer	Category
Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1 Customer20200104.csv	1 1/1/2020 12:00:00 AM	Tailspin Toys (Head Office)	Novelty Shop	
2 Customer20200104.csv	2 1/1/2020 12:00:00 AM	Tailspin Toys (Sylvanite, MT)	Novelty Shop	
3 Customer20200104.csv	3 1/1/2020 12:00:00 AM	Tailspin Toys (Peeples Valley, AZ)	Novelty Shop	
4 Customer20200104.csv	4 1/4/2020 12:00:00 AM	Tailspin Toys (Medicine Lodge, KS)	Novelty Shop	
5 Customer20200104.csv	5 1/4/2020 12:00:00 AM	Tailspin Toys (Gasport, NY)	Novelty Shop	
6 Customer20200104.csv	6 1/4/2020 12:00:00 AM	Tailspin Toys (Jessie, ND)	Novelty Shop	
7 Customer20200104.csv	7 1/4/2020 12:00:00 AM	Tailspin Toys (Frankewing, TN)	Novelty Shop	
8 Customer20200104.csv	8 1/4/2020 12:00:00 AM	Tailspin Toys (Bow Mar, CO)	Novelty Shop	
9 Customer20200104.csv	9 1/4/2020 12:00:00 AM	Tailspin Toys (Netcong, NJ)	Novelty Shop	
10 Customer20200104.csv	10 1/4/2020 12:00:00 AM	Tailspin Toys (Wimbledon, ND)	Novelty Shop	
11 Customer20200112.csv	1 1/12/2020 12:00:00 AM	Tailspin Toys (Head Office)	Novelty Shop	
12 Customer20200112.csv	2 1/12/2020 12:00:00 AM	Tailspin Toys (Sylvanite, MT)	Novelty Shop	
13 Customer20200112.csv	3 1/12/2020 12:00:00 AM	Tailspin Toys (Peeples Valley, AZ)	Novelty Shop	
14 Customer20200112.csv	4 1/12/2020 12:00:00 AM	Tailspin Toys (Medicine Lodge, KS)	Novelty Shop	
15 Customer20200112.csv	5 1/12/2020 12:00:00 AM	Tailspin Toys (Gasport, NY)	Novelty Shop	
16 Customer20200112.csv	2 1/22/2020 12:00:00 AM	Tailspin Toys (Sylvanite, MT)	Novelty Shop	
17 Customer20200112.csv	7 1/22/2020 12:00:00 AM	Tailspin Toys (Frankewing, TN)	Novelty Shop	
18 Customer20200112.csv	8 1/22/2020 12:00:00 AM	Tailspin Toys (Bow Mar, CO)	Novelty Shop	
19 Customer20200112.csv	9 1/22/2020 12:00:00 AM	Tailspin Toys (Netcong, NJ)	Novelty Shop	
20 Customer20200112.csv	10 1/22/2020 12:00:00 AM	Tailspin Toys (Wimbledon, ND)	Novelty Shop	

Each file contains deltas of any new or modified rows from each load to the data lake. Multiple files can have the same customer ID.

You need to keep only the last modified row for each customer ID.

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

Actions**Answer Area**

Filter the Customer query on Modified Date is Latest.

Merge the CustomerGrouped query into the Customer query based on Customer ID and Modified Date by using a left outer join.

Remove duplicates in the Customer ID column.



Duplicate the Customer query and name the new query CustomerGrouped.

Group the CustomerGrouped query by Customer ID and output the max Modified Date value into a column named Modified Date.

Merge the two queries based on Customer ID and Modified Date by using an inner join.

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

Filter the Customer query on Modified Date is Latest.

Merge the CustomerGrouped query into the Customer query based on Customer ID and Modified Date by using a left outer join.

Remove duplicates in the Customer ID column.



Duplicate the Customer query and name the new query CustomerGrouped.

Group the CustomerGrouped query by Customer ID and output the max Modified Date value into a column named Modified Date.

Merge the two queries based on Customer ID and Modified Date by using an inner join.

Question: 62

You have the line chart shown in the exhibit. (Click the Exhibit tab.)

Order Count by Month, 2014



You need to modify the chart to meet the following requirements:

Identify months that have order counts above the mean.

Display the mean monthly order count.

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

Actions

Answer Area

Create a 12-month rolling average quick measure and add the measure to the line chart value.



From the Analytics pane, add a Median line.

Select the line chart.

From the Analytics pane, add an Average line.

Turn on data labels for the new line.

Answer:

Actions

Create a 12-month rolling average quick measure and add the measure to the line chart value.

From the Analytics pane, add a Median line.

Select the line chart.

From the Analytics pane, add an Average line.

Turn on data labels for the new line.

Answer Area

Create a 12-month rolling average quick measure and add the measure to the line chart value.

Select the line chart.



From the Analytics pane, add a Median line.



Explanation:

Step 1: Create a 12-month...

You can use calculated measure to get the expected result.

1. Create a calculated column for the date.
2. Create a measure for 12 months moving average.
3. Drag the Line Chart into your canvas as below. (step 2 below)

Step 2: Select the line chart

Step 3: From the Analytics pane, add a Median line

<https://community.powerbi.com/t5/Desktop/Moving-Average/td-p/43041>

Question: 63

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 scenario, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have several reports and dashboards in a workspace.

You need to grant all organizational users read access to a dashboard and several reports.

Solution: You assign all the users the Viewer role to the workspace.

Does this meet the goal?

- A . Yes
- B . No

Answer: A

Explanation:

The Viewer role gives a read-only experience to its users. They can view dashboards, reports, or workbooks in the workspace, but can't browse the datasets or dataflows. Use the Viewer role wherever you would previously use a classic workspace set to "Members can only view Power BI content".

Question: 64

You are developing a sales report that will have multiple pages. Each page will answer a different business question.

You plan to have a menu page that will show all the business questions.

You need to ensure that users can click each business question and be directed to the page where the question is answered. The solution must ensure that the menu page will work when deployed to any workspace.

What should you include on the menu page?

- A . Create a text box for each business question and insert a link.
- B . Create a button for each business question and set the action type to Bookmark.
- C . Create a Power Apps visual that contains a drop-down list. The drop-down list will contain the business questions.

Answer: C

Explanation:

Power BI enables data insights and better decision-making, while Power Apps enables everyone to build and use apps that connect to business data. Using the Power Apps visual, you can pass context-aware data to a canvas app, which updates in real time as you make changes to your report. Now, your app users can derive business insights and take actions from right within their Power BI reports and dashboards.

<https://docs.microsoft.com/en-us/powerapps/maker/canvas-apps/powerapps-custom-visual>

Question: 65

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: B, C

Explanation:

B: The on-premises data gateway acts as a bridge to provide quick and secure data transfer between on-premises data (data that isn't in the cloud) and several Microsoft cloud services. These cloud services include Power BI.

On-premises data gateway (personal mode) allows one user to connect to sources, and can't be shared with others. An on-premises data gateway (personal mode) can be used only with Power BI. This gateway is well-suited to scenarios where you're the only person who creates reports, and you don't need to share any data sources with others.

C: For Power BI users, refreshing data typically means importing data from the original data sources into a dataset, either based on a refresh schedule or on-demand. You can perform multiple dataset refreshes daily, which might be necessary if the underlying source data changes frequently.

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

Question: 66

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:

A Member can add members or others with lower permissions.

Note:

Question: 67

You create a dataset sourced from dozens of flat files in Azure Blob storage. The dataset uses incremental refresh.

From powerbi.com, you deploy the dataset and several related reports to Microsoft Power BI Premium capacity.

You discover that the **dataset refresh fails** after the refresh runs out of resources.

What is a possible cause of the issue?

- A . Query folding is not occurring.
 - B . You selected Only refresh complete periods.
 - C . The data type of the column used to partition the data changed.
 - D . A filter is missing on the report.
-

Answer: A

Explanation:

The Power BI service partitions data based on date range. This is what enables only certain partitions to be refreshed incrementally. To make this work, the partition filter conditions are pushed down to the source system by including them in the queries. Using Power Query terminology, this is called "query folding". It is not recommended that incremental refresh is used when the required query folding cannot take place.

<https://powerbi.microsoft.com/en-us/blog/incremental-refresh-query-folding/>

Question: 68

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 scenario, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have several reports and dashboards in a workspace.

You need to grant all organizational users read access to a dashboard and several reports.

Solution: You publish an app to the entire organization.

Does this meet the goal?

A . Yes

B . No

Answer: B

Explanation:

Instead assign all the users the Viewer role to the workspace.

Note: The Viewer role gives a read-only experience to its users. They can view dashboards, reports, or workbooks in the workspace, but can't browse the datasets or dataflows. Use the Viewer role wherever you would previously use a classic workspace set to "Members can only view Power BI content".

<https://powerbi.microsoft.com/en-us/blog/announcing-the-new-viewer-role-for-power-bi-workspaces/>

Question: 69

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

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

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

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

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

What should you recommend?

- A . Change any DAX measures to use iterator functions.
- B . Replace the default visuals with AppSource visuals.
- C . Change the imported dataset to DirectQuery.
- D . Remove unused columns from tables in the data model.

Answer: C

Explanation:

DirectQuery: No data is imported or copied into Power BI Desktop.

Import: The selected tables and columns are imported into Power BI Desktop. As you create or interact with a visualization, Power BI Desktop uses the imported data.

Benefits of using DirectQuery

There are a few benefits to using DirectQuery:

DirectQuery lets you build visualizations over very large datasets, where it would otherwise be unfeasible to first import all the data with pre-aggregation.

Underlying data changes can require a refresh of data. For some reports, the need to display current data can require large data transfers, making reimporting data unfeasible. By contrast, DirectQuery reports always use current data.

The 1-GB dataset limitation doesn't apply to DirectQuery.

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

Question: 70

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

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

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

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

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

Does this meet the goal?

A . Yes

B . No

Answer: B

Explanation:

The filter is applied after the data is imported.

Instead add a WHERE clause to the SQL statement.

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-gateway-sql-tutorial>

Question: 71

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

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

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

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

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

Does this meet the goal?

A . Yes

B . No

Answer: A

Explanation:

The WHERE clause has its effects before the data is imported.

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-gateway-sql-tutorial>

Question: 72

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

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

You create a parameter named `DataSourceExcel` that holds the file name and location of a Microsoft Excel data source.

You need to update the query to reference the parameter instead of multiple hard-coded copies of the location within each query definition.

Solution: You modify the source step of the queries to use `DataSourceExcel` as the file path.

Does this meet the goal?

- A . Yes
- B . No

Answer: A

Explanation:

Parameterising a Data Source could be used in many different use cases. From connecting to different data sources defined in Query Parameters to load different combinations of columns.

<https://www.biinsight.com/power-bi-desktop-query-parameters-part-1/>

Question: 73

You have a Power BI report.

You need to create a calculated table to return the 100 highest spending customers.

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

NOTE: Each correct selection is worth one point.

Top 100 Customers =

```
ASC[  
DESC(  
FILTER(  
SUMMARIZE[  
TOPN(  
100,  
(FactTransaction,  
FactTransaction[Customer ID],  
"Sales",  
SUM(FactTransaction[Sale])),  
[Sales],  
ASC  
DESC  
FILTER  
SUMMARIZE  
TOPN
```

Answer:

```
Top 100 Customers =  
    ASC[  
    DESC(  
    FILTER(  
    SUMMARIZE[  
        TOPN(  
            100,  
            FactTransaction,  
            FactTransaction[Customer ID],  
            "Sales",  
            SUM(FactTransaction[Sale])),  
            [Sales],  
            ASC  
            DESC  
            FILTER  
            SUMMARIZE  
            TOPN  
        )  
    )  
]
```

Explanation:

Box 1: TOPN

TOPN returns the top N rows of the specified table.

Box 2: SUMMARIZE

SUMMARIZE returns a summary table for the requested totals over a set of groups.

Box 3: DESC

Sort in descending order.

It is last in the TOPN command.

TOPN syntax:

TOPN(<n_value>, <table>, <orderBy_expression>, [<order>[, <orderBy_expression>, [<order>]]...])

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

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

Question: 74

You have two tables named Customers and Invoice in a Power BI model. The Customers table contains the following fields:

CustomerID

Customer City

Customer State

Customer Name

Customer Address 1

Customer Address 2

Customer Postal Code

The Invoice table contains the following fields:

Order ID

Invoice ID

Invoice Date

Customer ID

Total Amount

Total Item Count

The Customers table is related to the Invoice table through the Customer ID columns. A customer can have many invoices within one month.

The Power BI model must provide the following information:

The number of customers invoiced in each state last month

The average invoice amount per customer in each postal code

You need to define the relationship from the Customers table to the Invoice table. The solution must optimize query performance.

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

NOTE: Each correct selection is worth one point.

Cardinality:

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

Cross-filter direction:

Both
Single

Answer:

Cardinality:

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

Cross-filter direction:

Both
Single

Explanation:

Box 1: One-to-many

A customer can have many invoices within one month.

Box 2: Single

For One-to-many relationships, the cross filter direction is always from the 'one' side, and optionally from the 'many' side (bi-directional). For

Single cross filter direction means 'single direction', and Both means 'both directions'. A relationship that filters in both directions is commonly described as bi-directional.

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

Question: 75

You have multiple dashboards.

You need to ensure that when users browse the available dashboards from powerbi.com, they can see which dashboards contain Personally Identifiable Information (PII). The solution must minimize configuration effort and impact on the dashboard design.

What should you use?

- A . comments
- B . tiles
- C . Microsoft Information Protection sensitivity labels
- D . Active Directory groups

Microsoft Information Protection sensitivity labels provide a simple way for your users to classify critical content in Power BI without compromising productivity or the ability to collaborate.

Sensitivity labels can be applied to datasets, reports, dashboards, and dataflows.

Answer: C

Explanation:

<https://docs.microsoft.com/en-us/power-bi/admin/service-security-sensitivity-label-overview>

Question: 76

You have a Power BI tenant.

You have reports that use financial datasets and are exported as PDF files.

You need to ensure that the reports are encrypted.

What should you implement?

- A . dataset certifications
- B . row-level security (RLS)
- C . sensitivity labels
- D . Microsoft Intune policies

Answer: C

Explanation:

General availability of sensitivity labels in Power BI.

Microsoft Information Protection sensitivity labels provide a simple way for your users to classify critical content in Power BI without compromising productivity or the ability to collaborate. Sensitivity labels can be applied on datasets, reports, dashboards, and dataflows. When data is exported from Power BI to Excel, PowerPoint or PDF files, Power BI automatically applies a sensitivity label on the exported file and protects it according to the label's file encryption settings. This way your sensitive data remains protected no matter where it is.

<https://powerbi.microsoft.com/en-us/blog/announcing-power-bi-data-protection-ga-and-introducing-new-capabilities/>

Question: 77

You use an R visual to produce a map of 500,000 customers. You include the values of CustomerID, Latitude, and Longitude in the fields sent to the visual. Each customer ID is unique.

In powerbi.com, when users load the visual, they only see some of the customers.

What is the cause of the issue?

- A . The visual was built by using a different version of R.
- B . The data comes from a Microsoft SQL Server source.
- C . The data is deduplicated.
- D . Too many records were sent to the visual.

Answer: D

Explanation:

R visuals in the Power BI service have a few limitations including:

Data size limitations -- data used by the R visual for plotting is limited to 150,000 rows. If more than 150,000 rows are selected, only the top 150,000 rows are used and a message is displayed on the image. Additionally, the input data has a limit of 250 MB.

<https://docs.microsoft.com/en-us/power-bi/visuals/service-r-visuals>

Question: 78

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

Which type of visualization should you use?

- A . stacked area chart
- B . donut chart
- C . line chart
- D . waterfall chart

Answer: C

Explanation:

A line chart or line graph displays the evolution of one or several numeric variables. Data points are connected by straight line segments. A line chart is often used to visualize a trend in data over intervals of time -- a time series -- thus the line is often drawn chronologically.

Example:

Incorrect Answers:

A: Stacked area charts are not appropriate to study the evolution of each individual group: it is very hard to subtract the height of other groups at each time point.

Note: A stacked area chart is the extension of a basic area chart. It displays the evolution of the value of several groups on the same graphic. The values of each group are displayed on top of each other, what allows to check on the same figure the evolution of both the total of a numeric variable, and the importance of each group.

<https://www.data-to-viz.com/graph/line.html>

Question: 79

You have a Microsoft SharePoint Online site that contains several document libraries. One of the document libraries contains manufacturing reports saved as Microsoft Excel files. All the manufacturing reports have the same data structure.

You need to load only the manufacturing reports to a table for analysis.

What should you do in Microsoft Power BI Desktop?

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

Answer: C

Explanation:

Example:

My SharePoint site root url is <https://powerbipanama.sharepoint.com/>, but all of my files are actually in another site that starts with <https://powerbipanama.sharepoint.com/sites/externalsales/> URL.

In order to use the correct URL, we need to be in the folder of the data that we're trying to get and check the url that our browser shows. If it has the if it starts with the format of Error! Hyperlink reference not valid. address>/sites/<sitename>/ then we need to use that url, otherwise we use the much simpler Error! Hyperlink reference not valid. address>

In my own case, I'll be using the <https://powerbipanama.sharepoint.com/sites/externalsales> url in order to connect to my site.

<https://powerbi.microsoft.com/sv-se/blog/combining-excel-files-hosted-on-a-sharepoint-folder/>

Question: 80

Your company has training videos that are published to Microsoft Stream.

You need to surface the videos directly in a Microsoft Power BI dashboard.

Which type of tile should you add?

- A . video
- B . custom streaming data
- C . text box
- D . web content

Answer: B

Explanation:

The only way to visualize a streaming dataset is to add a tile and use the streaming dataset as a custom streaming data source.

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-real-time-streaming>

Question: 81

You have a folder of monthly transaction extracts.

You plan to create a report to analyze the transaction data.

You receive the following email message: 'Hi. I've put 24 files of monthly transaction data onto the shared drive. File Transactions201901.csv through Transactions201912.csv have the latest set of columns, but files Transactions201801.csv to Transactions201812.csv have an older layout without the extra fields needed for analysis. Each file contains 10 to 50 transactions.'

You get data from the folder and select Combine & Load. The Combine Files dialog box is shown in the exhibit. (Click the Exhibit tab.)

Combine Files

Specify the settings for each file. [Learn more](#)

Sample File:

First file

File Origin

1252: Western European (Windows)

Delimiter

Comma

Data Type Detection

Based on entire dataset



ID	Date	CustomerID	Amount
1	01/01/2018 08:00:00	5	28.99
2	01/01/2018 18:00:00	10	31.88
3	02/01/2018 08:00:00	15	22.99
4	02/01/2018 18:00:00	25	14.25
5	03/01/2018 08:00:00	35	85
6	03/01/2018 18:00:00	45	47.74
7	04/01/2018 08:00:00	55	76.66
8	04/01/2018 18:00:00	51	99.99
9	05/01/2018 08:00:00	52	10.99
10	05/01/2018 18:00:00	58	85

Skip files with errors

OK

Cancel

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements

Yes No

The resulting query will contain all the columns from the 2018 transactions.

The resulting query will contain all the columns from the 2019 transactions.

Setting Data Type Detection to **Based on first 200 rows** will improve import times.

Answer:

Answer Area

Statements	Yes	No
The resulting query will contain all the columns from the 2018 transactions.	<input checked="" type="radio"/>	<input type="radio"/>
The resulting query will contain all the columns from the 2019 transactions.	<input checked="" type="radio"/>	<input type="radio"/>
Setting Data Type Detection to Based on first 200 rows will improve import times.	<input type="radio"/>	<input checked="" type="radio"/>

Question: 82

You create the following step by using Power Query Editor.

```
= Table.ReplaceValue(SalesLT_Address,'1318','1319',Replacer.ReplaceText,{"AddressLine1"})
```

A row has a value of 21318 Lasalle Street in the AddressLine1 column. What will the value be when the step is applied?

- A . 1318
- B . 1319
- C . 21318 Lasalle Street
- D . 21319 Lasalle Street

Answer: D

Explanation:

Example:

Replace the text 'ur' with the text 'or' in the table.

<https://docs.microsoft.com/en-us/powerquery-m/table-replacevalue>

Question: 83

DROP

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

You perform an initial load of the data from a Microsoft Excel source as shown in the following exhibit.

	Column1	Column2	Column3	Column4	Column5	Column6
• Valid	100%	• Valid	100%	• Valid	100%	• Valid
• Error	0%	• Error	0%	• Error	0%	• Error
• Empty	0%	• Empty	0%	• Empty	0%	• Empty
1 Department	Product		2016	2017	2018	2019
2 Bikes	Carbon mountainbike		1002815	1006617	1007814	1007239
3 Bikes	Aluminium road bike		1007024	1001454	1005842	1007105
4 Bikes	Touring bike		1003676	1005171	1001669	1003244
5 Accessories	Bell		76713	10247	60590	25927
6 Accessories	Bottle holder		26690	29613	67955	71466
7 Accessories	Satnav		83189	40113	71684	24697
8 Accessories	Mobilephone holder		68641	80336	58099	45706

You plan to create several visuals from the data, including a visual that shows revenue split by year and product.

You need to transform the data to ensure that you can build the visuals. The solution must ensure that the columns are named appropriately for the data that they contain.

Actions

- Select **Use Headers as First Row**.
- Select Department and Product and **Unpivot Other Columns**.
- Select **Use First Rows as Headers**.
- Rename the third column as Year and the fourth column as Revenue.
- Select Department and Product and **Unpivot Columns**.
- Rename the third column as Revenue and the fourth column as Year.

Answer Area

Answer:

Actions

- Select **Use Headers as First Row**.
- Select Department and Product and **Unpivot Other Columns**.
- Select **Use First Rows as Headers**.
- Rename the third column as Year and the fourth column as Revenue.
- Select Department and Product and **Unpivot Columns**.
- Rename the third column as Revenue and the fourth column as Year.

Answer Area

Question: 84

You import a large dataset to 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.

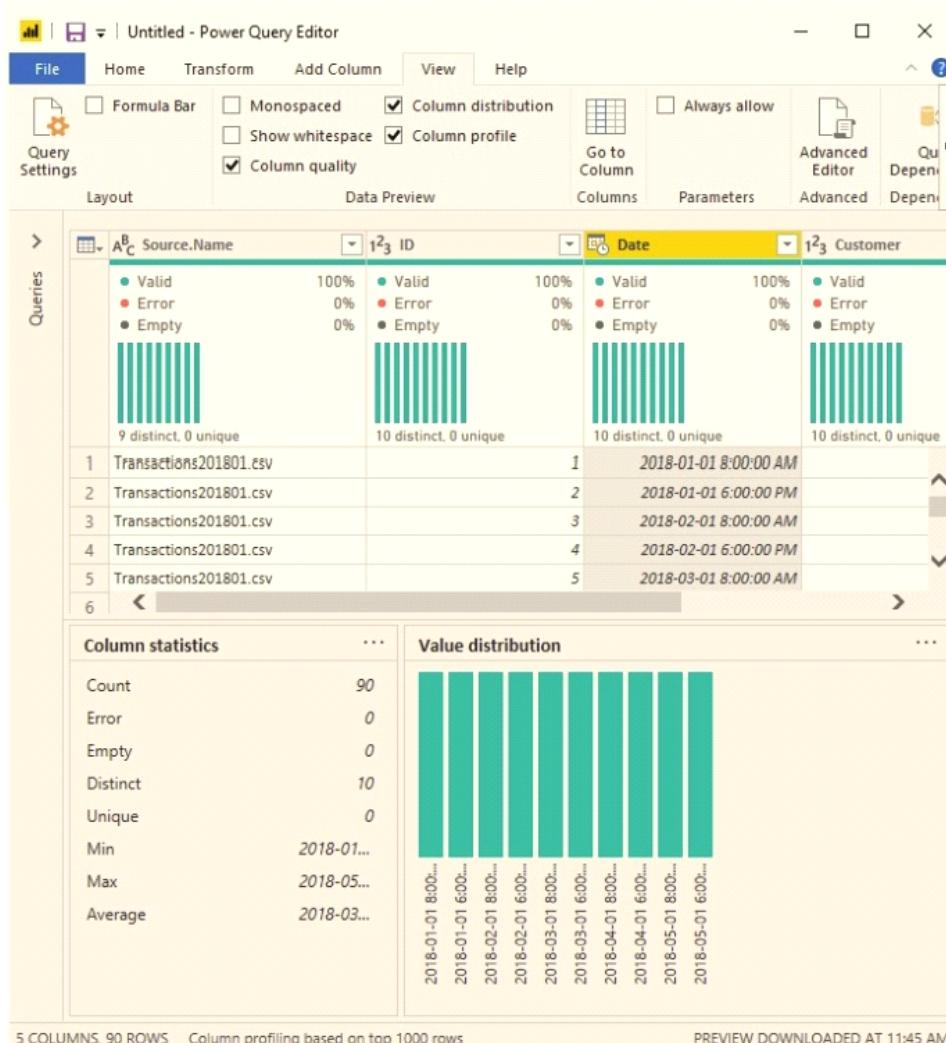
NOTE: Each correct selection is worth one point

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

Answer: 

Question: 85

You view a query named Transactions as shown in the following exhibit.



The query gets CSV files from a folder.

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] CSV files:

9
10
25
90
1,000

Removing duplicates based on the Date column will reduce the dataset to

[answer choice] rows:

9
10
25
90
1,000

Answer:

Answer Area

There are [answer choice] CSV files:

9
10
25
90
1,000

Removing duplicates based on the Date column will reduce the dataset to

[answer choice] rows:

9
10
25
90
1,000

Explanation:

Box 1: 9

9 distinct CSV files.

Box 2: 10

10 distinct dates.

Question: 86

Your company has employees in 10 states.

The company recently decided to associate each state to one of the following three regions: East, West, and North.

You have a data model that contains employee information by state. The model does NOT include region

information.

You have a report that shows the employees by state.

You need to view the employees by region as quickly as possible.

What should you do?

- A . Create a new aggregation that summarizes by employee.
- B . Create a new group on the state column and set the Group type to List.
- C . Create a new group on the state column and set the Group type to Bin.
- D . Create a new aggregation that summarizes by state.

Answer: C

Explanation:

With grouping you are normally working with dimensional attributes.

Here we add three new groups (East, West, and North) and add each state to the appropriate group.

<https://www.mssqltips.com/sqlservertip/4720/binning-and-grouping-data-with-power-bi/>

Question: 87

You have a query that returns the data shown in the following exhibit.

	A ^B _C student	A ^B _C classes
1	Mike A	Math,English,Art
2	Sam B	Physics
3	Kathy S	English, Math

You need to configure the query to display the data as shown in the following exhibit.

	A ^B _C student	A ^B _C classes
1	Mike A	Math
2	Mike A	English
3	Mike A	Art
4	Sam B	Physics
5	Kathy S	English
6	Kathy S	Math

Which step should you use in the query?

- A . =Table.ExpandListColumn(Table.TransformColumnNames(Source, {"classes". Splitter.SplitTextByDelimiter(", ", QuoteStyle.None), let itemType - (type nullable text) meta [Serialized.Text = true] in type {itemType}}),

```
'classes')
B . = Table.Unpivot(Source, {'classes'}, 'Attribute', 'Value')
C . = Table.SplitColumn(Source, 'classes'. Splitter.SplitTextByDelimit erf', QuoteStyle.None), {'classes.1'}
D . = Table.SplitColumn(Source, 'classes'. Splitter.SplitTextByPositions({10}), {'classes.1'})
```

Answer: D

Question: 88

You are modeling data in table named SalesDetail by using Microsoft Power BI.

You need to provide end users with access to the summary statistics about the SalesDetail dat

a. The users require insights on the completeness of the data and the value distributions.

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

Actions	Answer Area
Specify the following query, then close and apply. -Table.Distinct(#"SalesDetail")	
Create a visual for the query table.	
Create a parameter that uses a query for the suggested values.	↶
Create a query that uses Common Data Service as a data source.	↷
Specify the following query, then close and apply. -Table.Profile(#"SalesDetail")	↑
Create a blank query as a data source.	↓

Answer:

Actions	Answer Area
Specify the following query, then close and apply. -Table.Distinct (#"SalesDetail")	Create a blank query as a data source.
Create a visual for the query table.	Specify the following query, then close and apply. -Table.Profile (#"SalesDetail")
Create a parameter that uses a query for the suggested values.	Create a visual for the query table.
Create a query that uses Common Data Service as a data source.	⟳
Specify the following query, then close and apply. -Table.Profile (#"SalesDetail")	⟲
Create a blank query as a data source.	⟳

Question: 89

You have a large dataset that contains more than 1 million rows. The table has a **datetime** column named Date.

You need to reduce the size of the data model.

What should you do?

- A . Round the hour of the Date column to startOfDay.
- B . Change the data type of the Date column to Text.
- C . Trim the Date column.
- D . Split the Date column into two columns, one that contains only the time and another that contains only the date.

Answer: D

Explanation:

Split your DateTime column into a separate date & time columns in fact table, so that you can join the date to the date table & the time to the time table. The time need to be converted to the nearest round minute or second so that every time in your data corresponds to a row in your time table.

<https://intellipaat.com/community/6461/how-to-include-time-in-date-hierarchy-in-power-bi>

Question: 90

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

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

You need to prevent report recipients from reading the analyzed emails. The solution must minimize the model size.

What should you do?

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

Answer: B

Question: 91

You have the tables shown in the following table.

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

The Impressions table contains approximately 30 million records per month.

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

Present ad impression counts for the day, campaign, and Site_name. The analytics for the last year are required.

Minimize the data model size.

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

NOTE: Each correct selection is worth one point.

- A . Group the impressions by Ad_id, Site_name, and Impression_date.
Aggregate by using the CountRows function.
- B . Create one-to-many relationships between the tables.
- C . Create a calculated measure that aggregates by using the COUNTROWS function.
- D . Create a calculated table that contains Ad_id, Site_name, and Impression_date.

Answer: A, B

Question: 92

You open a query in Power Query Editor.

You need to identify the percentage of empty values in each column as quickly as possible.

Which Data Preview option should you select?

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

Answer: D

Explanation:

Column quality: In this section, we can easily see valid, Error and Empty percentage of data values associated with the Selected table.

Note: In Power Query Editor, Under View tab in Data Preview Section we can see the following data profiling functionalities:

Column quality

Column distribution

Column profile

<https://community.powerbi.com/t5/Community-Blog/Data-Profiling-in-Power-BI-Power-BI-Update-April-2019/ba-p/674555>

Question: 93

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 scenario, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a clustered bar chart that contains a measure named Salary as the value and a field named Employee as the axis. Salary is present in the data as numerical amount representing US dollars.

You need to create a reference line to show which employees are above the median salary.

Solution: You create a constant line and set the value to .5.

Does this meet the goal?

A . Yes

B . No

Answer: B

Explanation:

Instead create a percentile line by using the Salary measure and set the percentile to 50%.

Note: The 50th percentile is also known as the median or middle value where 50 percent of observations fall below.

https://dash-intel.com/powerbi/statistical_functions_percentile.php

Question: 94

You have a prospective customer list that contains 1,500 rows of dat

a. 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: D, E

Explanation:

Data Profiling, Quality & Distribution in Power BI / Power Query features

To enable these features, you need to go to the View tab Data Preview Group Check the following:

Column quality

Column profile

Column distribution

Column profile

Turn on the Column Profiling feature.

Can use it to visually realize that your query is missing some data because of distinct and uniqueness counts.

<https://www.poweredsolutions.co/2019/08/13/data-profiling-quality-distribution-in-power-bi-power-query/>

<https://www.altentertraining.com/microsoft/power-bi/column-profiling-is-good/>

Question: 95

You have an API that returns more than 100 columns. The following is a sample of column names.

client_notified_timestamp

client_notified_source

client_notified_sourceid

client_notified_value

client_responded_timestamp

client_responded_source

client_responded_sourceid

client responded value

You plan to include only a subset of the returned columns.

You need to remove any columns that have a suffix of sourceid.

How should you complete the Power Query M code? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

```

let
    Source = ...,
    rawData = Source{[tableId= "clientData"]}[Data],
    removeSources =
        Table.CombineColumn
        Table.FindText
        Table.FromList
        Table.RemoveColumns
    (Table.ColumnNames(rawData),
    List.Contains
    List.Select
    Table.FindText
    Table.FromList
    each
        Text.Contains
        Text.EndsWith
        Text.From
        Text.StartsWith
    (_, "sourceid")))
in
    removeSources

```

Answer:

```
let  
  
    Source = ...,  
    rawData = Source{[tableId= "clientData"]}[Data],  
    removeSources = [
```

```

----- ( rawData,
Table.CombineColumn
Table.FindText
Table.FromList
Table.RemoveColumns
----- (Table.ColumnNames(rawData),
List.Contains
List.Select
Table.FindText
Table.FromList
----- each ( _, "sourceid"))
Text.Contains
Text.EndsWith
Text.From
Text.StartsWith
----- in
removeSources

```

Explanation:

Box 1: Table.RemoveColumns

When you do "Remove Columns" Power Query uses the Table.RemoveColumns function

Box 2: List.Select

Get a list of columns.

Box 3: Text.Contains

Example code to remove columns with a slash (/):

```

let
    Source = Excel.Workbook(File.Contents('C: Source'), null, true),
    #'1_Sheet' = Source{[Item='1',Kind='Sheet']}[Data],
    #'Promoted Headers' = Table.PromoteHeaders(#'1_Sheet', [PromoteAllScalars=true]),
    // get columns which contains any slash among values
    ColumnsToRemove =
        List.Select(
            // get a list of all columns
            Table.ColumnNames(#'Promoted Headers'),
            (columnName) =>

```

```

let
    // get all values of a columns
    ColumnValues = Table.Column(#'Promoted Headers', columnName),
    // go through values and stop when you find the first occurrence of a text containing a slash
    // if there is a value with a slash, return true else false
    ContainsSlash = List.AnyTrue(List.Transform(ColumnValues, each Text.Contains(_, '/)))
in
    ContainsSlash
),
// remove columns
Result = Table.RemoveColumns(#'Promoted Headers', ColumnsToRemove)
in
    Result

```

<https://community.powerbi.com/t5/Power-Query/Remove-columns-containing-a-certain-value/td-p/759657>

Question: 96

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

- Expand the records.
- Add columns that use data type conversions.
- Convert the list to a table.



Explanation:

Step 1: Expand the records.

First Open Power BI desktop and navigate to Power Query, import the JSON file, then load the data, click on the record to expand it and to see the record and list.

Step 2: Add columns that use data type conversions.

Step 3: Convert the list to a table

Question: 97

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

Customer ID

Customer Name

Phone

Email Address

Address ID

Address contains the following columns:

Address ID

Address Line 1

Address Line 2

City

State/Region

Country

Postal Code

The Customer ID and Address ID columns represent unique rows.

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

What should you do?

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

Answer: A

Explanation:

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

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

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

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

Question: 98

You have the following three versions of an Azure SQL database:

Test

Production

Development

You have a dataset that uses the development database as a data source.

You need to configure the dataset so that you can easily change the data source between the development, test, and production database servers from powerbi.com.

Which should you do?

- A . Create a JSON file that contains the database server names. Import the JSON file to the dataset.
- B . Create a parameter and update the queries to use the parameter.
- C . Create a query for each database server and hide the development tables.
- D . Set the data source privacy level to Organizational and use the ReplaceValue Power Query M function.

Answer: D

Explanation:

With privacy level settings, you can specify an isolation level that defines the degree that one data source must be isolated from other data sources.

An Organizational data source limits the visibility of a data source to a trusted group of people. An Organizational data source is isolated from all Public data sources, but is visible to other Organizational data sources.

<https://docs.microsoft.com/en-us/power-bi/admin/desktop-privacy-levels>

Question: 99

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

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

D18912E1457D5D1DDCBD40AB3BF70D5D

What should you do?

- A . Change the data type of the Logged column to Date.
 - B . Apply a transform to extract the last 11 characters of the Logged column and set the data type of the new column to Date.
 - C . Create a column by example that starts with 2018-12-31 and set the data type of the new column to Date.
 - D . Apply a transform to extract the first 11 characters of the Logged column.
-

Answer: D

Explanation:

With Power Query you can Split Date and Time into Separate Columns by using a transform.

<https://www.exceljetconsult.com.ng/home/blog/power-query-split-date-and-time-into-separate-columns/>

Question: 100

You have an Azure SQL database that contains sales transactions. The database is updated frequently.

You need to generate reports from the data to detect fraudulent transactions. The data must be visible within five minutes of an update.

How should you configure the data connection?

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

Answer: B

Explanation:

With Power BI Desktop, when you connect to your data source, it's always possible to import a copy of the data into the Power BI Desktop. For some data sources, an alternative approach is available: connect directly to the data source using DirectQuery.

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

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

Question: 101

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

The model contains two row-level security (RLS) roles named Role1 and Role2. Role1 contains the following filter.

City[State Province] = 'Kentucky'

Role2 contains the following filter.

Date[Calendar Year] = 2020

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

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

Answer: B

Explanation:

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

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

Question: 102

Your company has affiliates who help the company acquire customers.

You build a report for the affiliate managers at the company to assist them in understanding affiliate performance.

The managers request a visual showing the total sales value of the latest 50 transactions for each affiliate. You have a data model that contains the following tables.

Table name	Column name
Transactions	TransactionDate
	ItemsOrdered
	Amount
	TransactionID
Affiliate	AffiliateID
	Name

You need to develop a measure to support the visual.

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

NOTE: Each correct selection is worth one point.

Revenue Last 50 Transactions =

```

CALCULATE
CONCATENATEX
SUM
SUMX
TOPN

CALCULATE
CONCATENATEX
SUM
SUMX
TOPN

CALCULATE
CONCATENATEX
SUM
SUMX
TOPN

DESC)

)

```

Answer:

Revenue Last 50 Transactions =

```

CALCULATE
CONCATENATEX
SUM
SUMX
TOPN

```

```
    )  
    DESC)  
)  
)
```

```
[TransactionDate],
```

Explanation:

Box 1: CALCULATE

Start with CALCULATE and use a SUMX.

CALCULATE evaluates an expression in a modified filter context.

Box 2: SUMX

SUMX returns the sum of an expression evaluated for each row in a table.

The following sample creates a measure with the sales of the top 10 sold products.

```
= SUMX(TOPN(10, SUMMARIZE(Product, [ProductKey], 'TotalSales',  
SUMX(RELATED(InternetSales_USD[SalesAmount_USD]), InternetSales_USD[SalesAmount_USD]) +  
SUMX(RELATED(ResellerSales_USD[SalesAmount_USD]), ResellerSales_USD[SalesAmount_USD]))
```

Box 3: TOPN

TOPN returns the top N rows of the specified table.

Box 4: [TransactionDate]

TOPN Syntax: TOPN(<n_value>, <table>, <orderBy_expression>, [<order>[, <orderBy_expression>, [<order>]]...])

The orderBy_expression: Any DAX expression where the result value is used to sort the table and it is evaluated for each row of table.

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

Question: 103

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

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

The Products table is related to the ProductCategory table through the ProductCategoryID column.

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

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

NOTE: Each correct selection is worth one point.

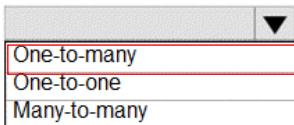
Cardinality:

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

Cross-filter direction:

Single
Both

Answer:

Cardinality: 
One-to-many
One-to-one
Many-to-many

Cross-filter direction: 
Single
Both

Explanation:

Box 1: One-to-many

Box 2: Both

For One-to-many relationships, the cross filter direction is always from the 'one' side, and optionally from the 'many' side (bi-directional).

Note:

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

Question: 104

You have a Microsoft Power BI data model that contains three tables named Sales, Product, and Date.

The Sales table has an existing measure named [Total Sales] that sums the total sales from the Sales table.

You need to write a calculation that returns the percentage of total sales that a selected ProductCategoryName value represents. The calculation must respect any slicers on ProductCategoryName and must show the percentage of visible total sales. For example, if there are four ProductCategoryName values, and a user filters one out, a table showing ProductCategoryName and the calculation must sum up to 100 percent.

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

NOTE: Each correct selection is worth one point.

Values**Answer Area**

ALL
ALLSELECTED
CALCULATE
CALCULATETABLE
CURRENTGROUP
DIVIDE
SUMMARIZE
TOPN

```
Product Category % of Total 2 =  
    [ ] ([Total Sales]),  
    [ ] ([Total Sales]),  
    [ ] (  
        Product[ProductName] ) ) )
```

Answer:

Values	Answer Area
ALL	Product Category % of Total 2 =
ALLSELECTED	CALCULATE ([Total Sales],
CALCULATE	DIVIDE [Total Sales] ,
CALCULATETABLE	ALLSELECTED (
CURRENTGROUP	Product[ProductCategoryName])))
DIVIDE	
SUMMARIZE	
TOPN	

Explanation:

Box 1: CALCULATE

CALCULATE evaluates an expression in a modified filter context.

Box 2: DIVIDE

As a data modeler, when you write a DAX expression to divide a numerator by a denominator, you can choose to use the **DIVIDE** function or the divide operator (/ - forward slash).

When using the **DIVIDE** function, you must pass in numerator and denominator expressions.

Box 3: ALLSELECTED

ALLSELECTED removes context filters from columns and rows in the current query, while retaining all other context filters or explicit filters.

The **ALLSELECTED** function gets the context that represents all rows and columns in the query, while keeping explicit filters and contexts other than row and column filters. This function can be used to obtain visual totals in queries.

Example:

```
measure 'Reseller Sales'[Reseller Visual Total]=calculate(sum('Reseller Sales'[Sales Amount]),  
ALLSELECTED())
```

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

Question: 105

You have sales data in a star schema that contains four tables named Sales, Customer, Date, and Product.

The Sales table contains purchase and ship dates.

Most often, you will use the purchase date to analyze the data, but you will analyze the data by both dates independently and together.

You need to design an imported dataset to support the analysis. The solution must minimize the model size and the number of queries against the data source.

Which data modeling design should you use?

- A . Use the Auto Date/Time functionality in Microsoft Power BI and do NOT import the Date table.
 - B . Duplicate the Date query in Power Query and use active relationships between both Date tables.
 - C . On the Date table, use a reference query in Power Query and create active relationships between Sales and both Date tables in the modeling view.
 - D . Create an active relationship between Sales and Date for the purchase date and an inactive relationship for the ship date.
-

Answer: D

Explanation:

Only one relationship can be active.

Note: If you query two or more tables at the same time, when the data is loaded, Power BI Desktop attempts to find and create relationships for you. The relationship options Cardinality, Cross filter direction, and Make this relationship active are automatically set.

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

Question: 106

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

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

Option to use to combine the Customer tables:

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

Action to perform on the original two SQL database queries:

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

Answer:

Answer Area

Option to use to combine the Customer tables:

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

Action to perform on the original two SQL database queries:

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