1. Why is it important to decide how missing values, inconsistencies, or errors will be handled when designing a data transformation plan?

- It reduces the amount of data to be processed.
- It ensures you are using the right dataset for analysis.
- ✅ **It ensures data quality and accuracy for reliable analysis.**
  Correct: Handling data issues ensures the transformed data is trustworthy and useful for decision-making.
- Handling missing values, inconsistencies, or errors is not an important consideration when designing a data transformation plan.

2. What is one way you could improve the testing proposed in the data transformation plan?

- ✅ **Compare results with known customer behavior patterns or historical insights to confirm validity.**
  Correct: Validating against known patterns helps ensure the transformation logic produces meaningful results.
- Eliminate testing to save time.
- Verify every row of data is accurate.
- Randomly select 10 rows of data to test.

3. Which of the following statements best addresses how business goals outlined in the RFM analysis plan align with proposed data transformation techniques?

- It is impossible to know if business goals will be met without analyzing the data first.
- While some of the techniques are useful to calculate RFM scores based on recency, frequency, and monetary value, data derivation cannot be used to segment data.
- These techniques are too basic to conduct RFM analysis
- ✅ **The techniques can be used to calculate RFM scores based on recency, frequency, and monetary value, which aligns directly with the desired customer segments.**

Correct: The transformation techniques directly support the segmentation goals of the RFM analysis.

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4. Are SQL and BigQuery effective tools for RFM analysis?

- ✅ **Yes, SQL and BigQuery are effective tools to conduct RFM analysis.**
  Correct: SQL enables precise transformations, and BigQuery provides scalable storage and compute for large datasets.
- No, specialized RFM analysis software is required for accurate results.
- No, because BigQuery only stores data.
- No, because SQL cannot be used for statistical analyses like RFM analysis.

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5. How does data segmentation using RFM analysis help a marketing team address a business need?

- ✅ **Allows the marketing team to tailor ad campaigns and marketing efforts for better results**
  Correct: Segmentation enables personalized marketing, improving engagement and conversion.
- Identifies customers to remove from the database
- Improves brand image by sending the same marketing message to all customers
- Reduces marketing costs by selecting only high-priority customers for outreach efforts