Power BI Student Answer Guide

Explanations, verification logic and solution guidance for 15 questions and 10 extensions.

1. Why use Power BI Desktop instead of just a spreadsheet?

It supports semantic modelling, DAX measures, relationships, and interactive report authoring. Excel remains useful for source analysis.

2. What distinguishes a Power BI report from a service dashboard?

The Desktop report contains pages and interactive visuals. A formal dashboard is a separate service canvas with pinned tiles.

3. Which three factual CSV groups should you import?

FactSessions (fact) plus DimLearners and DimResources, and also DimDate for a proper date dimension.

4. What problem does Power Query solve?

It repeats documented data preparation steps, e.g. type conversion and invalid-row exclusion, when data refreshes.

5. How should LearnerCode relate to fact sessions?

Unique DimLearners[LearnerCode] on the one side, FactSessions[LearnerCode] on the many side, filtering dimension to fact.

6. What is a DAX measure?

A model calculation evaluated in filter context rather than a fixed text value on a graphic.

7. Which expression counts the valid sessions?

Total Sessions = COUNTROWS(FactSessions) = 240 in the unfiltered fixture.

8. How do you calculate completion rate safely?

Completion Rate = DIVIDE([Completed Sessions], [Total Sessions]) = 152/240 = 63.33% baseline.

9. How do you build a data-driven KPI card?

Create a Card visual and bind a DAX measure such as [Total Study Minutes], not a typed static number.

10. Which chart suits a monthly trend?

A line chart with chronologically sorted DimDate[YearMonth] and [Total Sessions].

11. Why might a Subject slicer fail to affect a card?

Missing or inactive relationships or visual Edit interactions settings may block filtering.

12. How can cross-highlighting differ from cross-filtering?

Highlighting can retain background totals while emphasizing a subset; filtering changes the data available to a visual.

13. What is drillthrough?

A way to open a detail report page in the context of a selected field, such as a Subject.

14. How do you verify a data refresh?

Add one valid record to a copy of the source, refresh, compare changed counts, then restore and recheck.

15. What is the correct response to a zero-row combined filter?

Show no matching sessions and blank/undefined rates clearly; do not reuse stale card values.

Extension implementation and success criteria

1. Add a ResourceType slicer and verify its effect on every intended visual.

Success: validate against source records, verify linked visuals and document any unsupported Power BI feature or sharing limitation.

2. Rank the top ten resources by [Total Sessions] and label counts accurately.

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3. Add an Active Learners card, verifying baseline 40.

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4. Add Resources Accessed, verifying baseline 36.

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5. Build a completion-rate chart grouped by subject and verify denominators.

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6. Filter the entire report by Difficulty and check affected cards.

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7. Create a monthly trend for North Coast, preserving date order.

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8. Expand Subject Details with resource titles and a working back navigation.

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9. Append a valid fictional event, refresh the model and verify changed totals.

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10. Write a four-part findings paragraph with a limitation and no causal claim.

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